

**ÇUKUROVA UNIVERSITY
THE INSTITUTE OF SOCIAL SCIENCES
ENGLISH LANGUAGE TEACHING**

**ACQUISITION OF L2 ENGLISH INFLECTIONAL SYSTEM BY TURKISH NATIVE
SPEAKERS: RULE-GOVERNED OR ROTE-LEARNED**

Diser ERTEKİN

DOCTOR OF PHILOSOFY

ADANA, 2006

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DOCTOR OF PHILOSOFY

ADANA, 2006

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ÖZET

İNGİLİZCE’NİN ÇEKİMLİ YAPISININ TÜRK ÖĞRENCİLER TARAFINDAN ÖĞRENİLMESİ: KURAL TEMELLİ VEYA EZBERE DAYALI

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Doktora Tezi, İngiliz Dili Eğitimi Anabilim Dalı

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Ekim 2006, 83 sayfa

İngilizce’yi ikinci dil olarak öğrenen Türk öğrencileri çekimli biçimbirimlerin kullanımında güçlük çekmektedirler. Bu çalışmada amaç, ikinci dilde gramer çekimli biçimbirim bilgisinin edinimini araştırmaktır. Çalışmanın odak noktası, üç -s (üçüncü tekil şahıs, iyelik, çoğul) çekim eklerinin, geçmiş zaman fiillerinin, *be* (olmak) fiilinin öğrenilmesi ve kullanılmasıdır.

Bu çalışma, aşağıdaki araştırma soruları üzerinde durmaktadır:

- 1- İngilizce’nin hangi çekim ekleri, İngilizce’yi yabancı dil olarak edinen Türk öğrenciler için sorun oluşturmaktadır?
- 2- Çekim eklerinden üç -s (üçüncü tekil şahıs, iyelik, çoğul) eklerinin edinimi nasıl bir sıra izlemektedir?
- 3- Eylem olarak kullanılan “be” ve yardımcı fiil “be” arasında edinim sırası açısından bir farklılık var mıdır?
- 4- İngilizce’deki geçmiş zaman çekim eki “-Ed” in edinimi Sözcükler ve Kurallar (Words and Rules) kuramına göre nasıl açıklanmaktadır?

Bu çalışmanın katılımcıları Adana, Çukurova Üniversitesi’nin çeşitli bölümlerinde okuyan başlangıç düzeyinde 50 üniversite öğrencisidir. Bu öğrencilerden toplanan sözlü ve yazılı veri, serbest yazım, resim anlatımı ve röportajlar aracılığıyla elde edilmiştir.

Anahtar Kelimeler: İkinci Dil Öğrenimi, Çekim Ekleri, Biçimbirim Edinim Sırası, Sözcükler ve Kurallar Kuramı

ABSTRACT

ACQUISITION OF L2 ENGLISH INFLECTIONAL SYSTEM BY TURKISH NATIVE SPEAKERS: RULE-GOVERNED OR ROTE-LEARNED

Diser ERTEKİN

Ph. D. Thesis, English Language Teaching Department

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October 2006, 83 pages

Turkish students learning English as a foreign language are observed to have difficulty in the establishment of inflectional morphemes. The aim of this study is to explore the representation of L2 grammatical morphemes by Turkish students learning English and the way they develop morphological knowledge. The focus is on learning and using past tense verbs, three -s morphemes (third person singular -s, possessive -s, plural -s), copula, and auxiliary be.

This study focuses on the following research questions:

- 1- What aspects of inflectional morphology in English as a second language (L2) cause problems in learning by Turkish (L1) speakers?
- 2- How do the three -s morphemes: plural, possessive, and third person occur in the language of Turkish speakers in L2?
- 3- Does the order of copula *be* and auxiliary *be* change in the acquisition of English by Turkish speakers?
- 4- How is acquisition of past tense morphemes explained in terms of Words and Rules theory in L2 setting?

The participants of the this study are from the elementary level students of Research and Application Centre for Foreign Languages (YADİM) at Çukurova University. Written and spoken data were collected through free writing tasks, picture telling task and interviews.

Key Words: Second Language Acquisition, Inflectional Morphology, Morpheme Order, Rule-Governed or Rote-Learned

ACKNOWLEDGEMENTS

This study has been possible with the contributions of many people in various ways.

First of all, I would like to express my deepest gratitude to Assoc. Prof. Dr. Hatice Sofu, my thesis advisor, for providing invaluable feedback and moral support throughout the entire period of the study. I am very grateful for her guidance from the earliest stages of this study. Without her encouragement, I would not have the strength to continue this research.

Secondly, I am grateful to my instructors, Assist. Prof. Dr. Fehmi C. Sendan, Assist. Prof. Dr. Trkay Bulut, Assoc. Prof. Dr. Zuhall Aknal, for their impressive attempts in this PhD. program.

I also wish to thank Assist. Prof. Dr. Ergn Serindağ, Assist. Prof. Dr. Hatice ubuku, Assist. Prof. Dr. Hlya Yumru for accepting to be a member of my dissertation committee.

My special thanks go to Assist. Prof. Dr. Cem Can, for his help in finding materials and shaping the theoretical background of my study.

Finally, I am grateful to my family for their constant encouragement and support throughout my life.

* ukurova niversitesi Bilimsel Arařtırma Projeleri Birimine EF2005D7 no'lu projeye olan katkılarından dolayı teřekkr ederim.

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CHAPTER I

INTRODUCTION

It is a fact that a grammar defines a mapping between sounds and meaning, but this mapping is not done in a single stage. It is done through a chain of structures each governed by a subsystem. Morphology is the subsystem that computes the forms of the words (Pinker, 1993). The details of morphological structure emerge over a period of several years. Initially, the words of children acquiring English as a first language lack any internal morphological structure. For O'Grady, Dobrovolsky, Aronoff (1997), at the initial stages of first language acquisition, affixes are totally absent and most of the words children produce consist of a single root morpheme. Gradually, inflectional and derivational morphemes begin to make their appearance and they mark an increased capacity for word and structure formation.

In English, there are many examples of irregular inflection such as past form of verbs and plural forms of nouns. The overwhelming majority of English verbs have a simple past tense form that can be described as the addition of one of three variants of the "-ed" (-d, -t, -ed) suffix to a base stem. A significant minority, particularly of relatively common verbs, take a so-called "irregular" form, which may or may not be systematically related to the stem form or to the forms of other words. Children typically begin by correctly producing a small number of both regular and irregular forms, then, produce characteristically "over-regularized" forms for a small but significant fraction of their verb forms. They, then, appear to re-learn the correct form, producing the classic "U-shaped developmental profile" (Berko, Ervin, Kuczaj and Marcus in Plunkett & Juola, 1999).

Within the morphology, the mastery of verbal inflection is significant in second language (L2) acquisition as a possible indication of morphological, syntactic or semantic competence. Interpretations and models of this phenomenon vary. In the grammars of native speakers, there are two routes to produce a past tense; either by reproduction of a memorized (irregular) form, or by applying a general rule to any word-form not recognized as being one of the forms in memory: rule-governed and rote-learned (Pinker, 1999). The distinction may be seen in the difference between regular inflection (e.g. walk-walked), which is productive and open-ended implicating a rule. Irregular inflection, on the other hand, is closed and unpredictable and hence implicates individually memorized words (e.g. come-came). Another distinction proposed for the representation of verbs is 'similarity-based or single-route'

approach that proposes all past tenses are formed simply through phonological analogies to existing past tenses stored in memory. On the other hand, the ‘rule-based or dual-route’ approach claims that phonological analogy is important for producing irregular past tenses, however, argues that regular past tenses are generated via “verb+ed” and that a principled account of regular inflection can only be given by recourse to explicit rules (Ramscar, 2002).

Other researchers like Rumelhart and McClelland (1993) have argued a single connectionist model, which is capable of producing appropriate patterns of behaviour, and thus that a single associative route suffices to explain the evidence of past tense acquisition. They provide a detailed computer model that succeeds in capturing certain properties of children’s behaviour without positing any internalised rules or any distinction between regular and irregular verbs. Their model works by being trained on correlations between the phonological patterns of verb stems and phonological patterns of the past tense form of this verb. In their process, ‘stopped’ is produced because input *-op* units were linked to output *-opped* units by previous verbs; *clung* is produced because *-ing* was linked to *-ung*.

In order to obtain empirical support for these views, we will investigate the issue of second language (L2) verbal inflections in terms of how morphological knowledge is presented in the L2 grammar and how that knowledge is developed. We will focus on learning and using past tense verbs, the three *-s* morphemes; namely, plural, possessive and third person, copula and auxiliary *be*. Since Turkish is an inflectionally rich language in which the past tense and plural morphology is totally rule-governed, we are going to investigate whether the rule-governed system of Turkish morphology has a hindering effect on the acquisition of English in classroom setting.

1.1 Background of the Study

Inflectional morphology has taken on a particular significance in debates about the nature of cognition since Rumelhart and McClelland (1986) presented their connectionist (single-route) model which involves only association in memory and Pinker(1988) proposed his dual-route model that there are two entirely different mechanisms for the processing of irregular and regular forms.

Connectionist accounts of morphological processing and representation make no distinction between regular and irregular inflection. Morphology is generated by associative, memory-based structures Rumelhart and McClelland (1993). On the other hand, according to dual-route theory, there are two routes to produce a past tense; either by reproduction of a

memorized (irregular) form or by applying a general rule to any word-form not recognized as being one of the forms in memory (Pinker, 1993).

English noun plurals share many of the same characteristics as verb past tenses. Brown, Marcus and Marchman (in Plunkett & Juola, 1999) have described broadly similar time courses for the acquisition of plural nouns, including the U-shaped curve and approximately similar overall rates of over-regularization. Likewise, many of the same phonotactic features (such as voicing assimilating) are relevant to the acquisition of both noun and verb morphology. On the other hand, there are some crucial differences. The number of irregular noun types is much smaller (about 20 irregular nouns versus about 150 irregular verbs), but they are individually more frequent. Nouns are also less complex in the (irregular) inflections that they undergo. For example, all noun plurals share their onsets with the singular form (unlike the present/past pair "go"/"went"), and many irregular nouns involve a simple change in voicing of the final consonant from /f/ to /v/ (as in "thief"/"thieves"). There also are some subtle developmental psycholinguistic differences. For example, noun plurals are typically learned more quickly than verb past tenses (Brown and Marchman in Plunkett & Juola, 1999) and also over-regularization of noun plurals is likely to be observed earlier and more frequently in development than over-regularization of past tense forms (Marcus and Marchman in Plunkett & Juola, 1999).

The other feature of inflectional morphology which needs to be looked more closely is the acquisition and usage of copula *be* and auxiliary *be*. In doing the grammatical analyses of '*be*' Brown (1973) found that "the behaviour of *be* [is] particularly puzzling. For my analyses I separated out the several allomorphs and distinguished copulas from auxiliaries. It was clear fairly that the copula-auxiliary distinction was a functional one and that auxiliary use in obligatory contexts developed more slowly than copula use" (p.306).

In the comparison of the morphological development in first language and in second language, auxiliary and copula *be* are acquired at a relatively earlier point in L2 than in L1 (O'Grady, Dobrovolsky, Aronoff, 1997). Moreover, children acquire the three -s morphemes in the order plural, possessive, and third person in their first language. However, the possessive morpheme -'s is acquired later in L2 than in L1 which leads us to the point that adult learners have already acquired the grammar of their first language; whereas, children have to set up a hierarchical structure of a grammar for the first time in their first language (O'Grady, Dobrovolsky, Aronoff, 1997).

1.2 Statement of the Problem

Turkish students learning English as a foreign language are observed to have difficulty in the establishment of inflectional morphemes. In this study, we aim to put light on the crucial issues of learning and using the three -s morphemes; namely, third person singular, plural, and possessive, copula and auxiliary *be* and past tense verbs in second language in classroom settings. Within this framework, second language (L2) verbal inflection is taken into account by how morphological knowledge is presented in the L2 grammar and how that knowledge is developed.

1.3 Purpose of the Study and Research Questions

In this study, the basic aim is to search for the issue of second language (L2) verbal inflections in terms of how morphological knowledge is presented in the L2 grammar and see whether the rule-governed system of Turkish morphology has an effect on the acquisition of English in classroom setting. In this respect, we aim to search for the answers of the following questions:

- 1- What aspects of inflectional morphology in English as a second language (L2) cause problems in learning by Turkish (L1) speakers?
- 2- How is acquisition of past tense morphemes explained in terms of Words and Rules theory in L2 setting?
- 3- How do the three –s morphemes: plural, possessive, and third person occur in the language of Turkish speakers in L2?
- 4- Are the order of copula *be* and auxiliary *be* different in the acquisition of English by Turkish speakers?

1.4 Limitations of the Study

All the data collected is valid just for participants who take part in the study. In addition, other variables like the social background and the sex of the participants are not considered in this research. That is, during the evaluation of the tasks and the calculation of the data, there might be an error probability.

1.5 Outline of the Study

In the first chapter, a brief introduction to the words and rules theory and morpheme order studies are presented. The statement of the problem is discussed focusing on research questions about the words and rules theory and the morphemes that will be analysed in second language acquisition of Turkish speakers. Finally, the limitations of this study are presented.

In the second chapter, a more detailed review of the words and rules theory is presented. In the first part, UG in first and second language acquisition and interlanguage are presented. The second part of this chapter grammatical morphemes and morpheme order studies in first language and second language are examined. The third part of this chapter focuses on the nature of past tense in English and the theories according to the mechanisms for the regular and irregular form of the verbs. In the fourth part of this chapter, morphosyntactic features of Turkish in terms of present tense, plural and possessive -s marking, copula and auxiliary *be* and past tense marking are presented.

In the third chapter, methodology of the study is presented in terms of the participants involved in the study, and the instruments used to gain data from subjects. The procedure of the data collection and analyses of the data such as techniques used to transcribe the data is presented.

The fourth chapter presents the analysis of the data observed. The data is discussed in terms of morpheme order in second language and past tense morphology in second language consecutively.

In the fifth chapter, the results are discussed in relation to the research questions presented in chapter one. Some implications for English language teaching and suggestions for further studies are discussed at the end of the chapter.

CHAPTER II

REVIEW OF LITERATURE

2.0 Introduction

In this chapter, a more detailed review of the Words and Rules theory was presented. In the first part of the chapter, UG: Universal Grammar in first and second language acquisition and interlanguage were examined in detail. The second part of this chapter grammatical morphemes and morpheme order studies in first language and second language are presented. The third part focuses on the nature of past tense in English and the theories according to the mechanisms for the regular and irregular form of the verbs. In the fourth part of this chapter, morphosyntactic features of Turkish in terms of present tense, plural and possessive -s marking, copula and auxiliary *be* and past tense marking are presented.

2.1 UG: Universal Grammar in First Language Acquisition

According to Chomsky (in Cook, 1988) acquisition of language is not simply acquisition of information from outside the organism and it is not like learning to ride a bicycle where there is practice and it becomes an existing skill. Instead it is internal development in response to vital, but comparatively trivial, experience from outside. From all the explanations Chomsky states that

Knowledge of language needs experience to mature; without it nothing would happen; but the entire potential is there from the start.... The physical basis of UG means that it is part of the human genetic inheritance, a part of biology rather than psychology; Universal Grammar is part of the genotype specifying one aspect of the initial state of the human mind and brain. (in Cook and Newson, 1988, p.106)

Despite the differences in the situations within a single culture or across different cultures, children are capable of acquiring their first language. Although children show differences in the extent to which they are able to use language, they already attain the same grammatical competence (Cook, 1988). “UG has a place for experience in language learning- otherwise all children would end up speaking the same language. The environment determines the way the parameters of universal grammar are set, yielding different languages” (Chomsky in Cook and Newson, 1988, p.105).

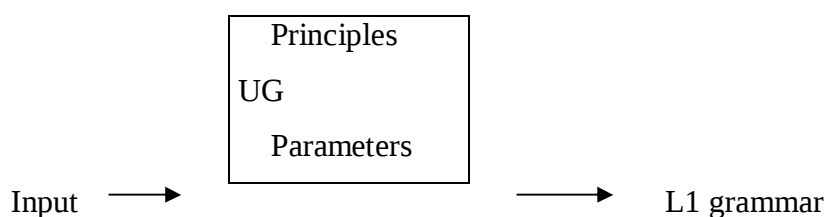


Figure 2.1. The Universal Grammar model of L1 acquisition (Cook, 1988)

In first language acquisition as figured above, there is ‘a black box’ defined by Chomsky (in Cook and Newson, 1988) which represents LAD-Language Acquisition Device. “Children hear a number of sentences said by their parents and other caretakers-‘the primary linguistic data’; they process these in some fashion within their black box, called the Language Acquisition Device (LAD), and they acquire linguistic competence in the language, i.e. a ‘generative grammar’”(Cook and Newson, 1988, p.79).

In Chomsky’s (in Cook, 1993) words what we know innately are the principles of the different subsystems of the initial state of the child’s mind (S_0) and their interactions, and the parameters related with these principles that differs within languages. In acquisition process, principles take the first place as they are already present as part of UG in the mind and they are triggered with parameters as a person is exposed to a particular language. For the next step, parameters are set according to the input the child hears although they are present in the mind (Cook, 1993).

The LAD which can be seen as Universal Grammar consists of a knowledge of grammar in principles that the child needs such as the Projection Principle- insisted that the lexical properties of lexical items project onto the sentence-, structure dependency which focuses on the structural relationships in the sentence rather than sequence of words. The grammar contains the appropriate setting for the parameters such as pro-drop which distinguishes languages which need to have the subject in the sentence from those that do not (Cook and Newson, 1988).

2.2 UG in Second Language Acquisition

The question of whether the UG intervene L2 acquisition and to what extent has been debated. In the first decade of 1980’s studies on second language acquisition from a UG perspective, research focused mainly on whether or not UG is available to L2 learners, and in what form (White, 2003). Is UG available (or accessible) to L2 learners? is the question which was asked by many researchers. The possible answers were presented by White (2003) as “the assumption was that if you can show that a particular UG principle operates/does not operate

then this generalizes to other principles, hence to UG availability/non availability in general. Researchers looked for evidence that L2 learners could (or could not) apply principles of UG, and set or reset parameters, as well as investigating the extent to which the L1 was involved, in the form of L1 parameter settings in interlanguage grammars”(p.23). Different hypotheses were put forward whether learners had no access, partial (indirect) access, or full (direct) access to UG, and there were differing views on the role of the L1 grammar (White, 2003).

Although many people start to learn a second language, few of them are able to gain knowledge of L2 equivalent to that of the L1. While L1 children progress from a initial stage of knowing innately to a final stage of knowing everything about a language, L2 learners already know a first language complete with principles and actual parameter settings according to that language and also in L2 competence there is no final state (Cook, 1988).

In first language acquisition, a poverty of syntax exists in the mind of a native speaker, but L2 learners show varieties in the levels of knowledge of the second language; some are just beginners, others are interpreters with the nations hanging on their translations. As a result, there is no typical L2 learner; they are only diverse individuals (Cook, 1988). While in first language acquisition, all children are able to learn language irrespective of the input they hear that can be described as poverty-of-the-stimulus, L2 learning cannot follow the same route. L2 learners do not achieve the same level of competence. According to Cook (1993), the two causes for not being successful is that the prior knowledge of the L1 prevents progress and L2 learning is more sensitive to the type of evidence available than L1 acquisition.

2.3 Interlanguage and Transfer

L2 learners' language is neither L1 nor L2 and it was defined as interlanguage (IL) that was introduced by Selinker (1972) and accepted as L2 learner's independent language system. Interlanguage is influenced both L1 and L2 but it has a grammar of its own as can be seen form the figure below.

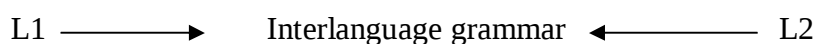


Figure2.2 Influences on an interlanguage grammar (Archibald, 1997, p. 476)

According to Corder (in Powell, 2006) language learning began to be seen as a process which involved the construction of an IL, a 'transitional competence' reflecting the dynamic nature of the learner's developing system. As a result of the variations in errors and the

difficulty associated with interpreting them, Corder proposed a ‘general law’ for IL. He suggested that every learner sentence should be regarded as a feature until shown to be otherwise. This emphasises the fact that interlanguage is a personal construct and process, and certain tendencies are typical of certain learners from the same linguistic background, it cannot be true to say that all learners from that background will have such tendencies.

Selinker (1972) states that there are five central processes in interlanguage as:

- Language transfer, in which the learner projects features of the first language on the second
- Overgeneralisation of L2 rules, in which the learner uses L2 rules where they do not permit

Although Selinker treats language transfer and overgeneralization as two distinct processes, Littlewood (2004) indicates that “they are related in that each is a way of using prior knowledge to make sense of what is new. We would therefore expect to encounter many instances where previous mother tongue knowledge and previous second language knowledge combine to offer the learner a similar way of making sense of new second language data”(p. 508).

- Transfer of training, when teaching creates rules which are not the part of the L2
- Strategies of L2 learning, such as simplification

According to Littlewood (2004) “the process of simplification, in which a speaker omits elements that are redundant and produces something similar to the “telegraphic speech” found in early mother tongue acquisition. For example, a Chinese native speaker in Hong Kong saw that I had some photocopying to be done and informed me *Photocopier broken*”(p.508). From a developmental perspective, the simplified utterances enable the second language learner to engage in interaction at an early stage with a minimum of linguistic competence and thus be exposed to a wider range of language (Littlewood, 2004).

- Communication strategies, when the learner omits grammatical items in communication

L2 learning differs from L1 learning in terms of having completed success in language; only 5 percent of L2 learners have absolute success according to Selinker (1972). He also demonstrates that interlanguage is both an independent grammar and a psychological mechanism for creating and using it as the five processes summarize.

There has been debate as to whether ‘transfer’ is a valid concept for use in discussing language acquisition at all. Lado (in Powell, 2006) proposed that second language learners rely almost entirely on their native language in the process of learning the target language. He presents a system of Contrastive Analysis which defines the comparison between L1 and L2 in terms of their phonology, grammar, writing systems and culture. “The fundamental assumption is transfer; individuals tend to transfer the forms and meanings, and the

distribution of forms and meanings of their native language and culture to be foreign language and culture”(Lado in Cook, 1993, p.11). According to him, the most difficult areas of the L2 are the ones that differ most from the L1, on the other hand, the elements which show similarity with the native language are simple for the learner and the elements which are different are difficult for the L2 learner.

Transfer is not only a direct linguistic reflex, but also indirectly shows underlying principles of language. Transfer and developmental influences are interacting processes. Congruence between L1 and L2 allows learners to see relevant L2 features. It affects production and comprehension of L2. Similarities in L1 and L2 influence language development even where there is no structural similarity. Transfer is also seen as a constraint on the acquisition process (Gass, 1996).

“For many people, transfer errors reflect the equivalent structures of the L1. Thus, for example, if a Japanese learner consistently omitted the indefinite articles of a sentence, then negative transfer could be claimed. Conversely, if a French learner regularly included the correct definite or indefinite articles in a sentence, then positive transfer could be cited. The ‘proof’ would be in the fact that in Japanese the article system does not exist, while French has a similar article system to English. Generally speaking, in terms of article use, Japanese and French learners of English do tend to follow the pattern suggested above” (Powell, p.9).

There are a variety of factors that influence interlanguage as there is much more differences in the grammars of L2 learners than the grammars of L1 learners. The factors are presented below.

2.3.1 Factors Affecting Interlanguage

The factors that affect interlanguage -age, individual differences, affective and cognitive factors – are presented in Archibald (1997). Age is one of the factors that affect interlanguage. It is known that when compared to first language acquisition, people start learning second languages at different times in their lives and language learners vary in their age. If the age in L2 learning causes different levels of final proficiency is still under discussion since there is no current evidence anything biological that prevents adults from acquiring proficiency in a second language. Although there is a prediction that people who start learning their L2 before the critical period of age of seven will have native-like L2 speech, there is a variation in performance of the L2 learners who start learning between the ages of seven and fourteen.

“Other studies of very early L2 starters suggest that frequency differences may exist between native and near-native speakers of a language, for example, in the use of specific structures, or in the size and quality of vocabulary. These characteristics of near-native language proficiency are not directly detectable, as errors are, but observable only in the results of linguistic analyses” (Hyltenstam and Abrahamsson, 2003, p.554).

According to Archibald (1997, p. 495) “ If adults are engaged in the same kind of development process as children, then we would expect their IL grammars to be describable in terms of the same principles and parameters of UG that we use to describe primary languages. Conversely, if adults are acquiring their second languages using qualitatively different learning mechanisms than are used to acquire an L1 (e.g., If they use general problem-solving abilities), then we might expect them to adopt hypotheses that are not sanctioned by Universal Grammar”. White and Genesee (in Hyltenstam and Abrahamsson, 2003) stated that access to UG is unaffected by starting age, and thus that native-like proficiency levels in a second language are indeed attainable even by adult L2 starters, at least in the domain they chose to investigate.

In Hyltenstam and Abrahamsson’s words (2003) “however, research has convincingly demonstrated that, although not entirely native-like in every aspect of the L2, there is a small population of late L2 learners who, under exceptionally advantageous circumstances, have a potential of reaching high overall levels, perhaps even native-like proficiency in one or several areas of the L2. In fact, in normal verbal interaction, it may be difficult, even impossible, for native listeners to distinguish such individuals from native speakers”(p.555).

Individual differences are another factor that affects learning a second language. Affective and cognitive factors play role in the individual differences (Archibald, 1997). Affective factors are dealt with emotional side of learning a second language and they include empathy, anxiety, inhibition, risk-taking, and motivation. Although affective factors play a crucial role in emotional side of learning, cognitive factors deal with the mechanics of how an individual learns something (Archibald, 1997).

On the other hand, O’Malley and Chamot’s (in Dörnyei and Skehan, 2003) defined social/affective strategies as two matching typologies, each comprising four main classes of learning strategy:

- i *cognitive strategies*, involving the manipulation or transformation of the learning materials/input (e.g., repetition, summarizing, using images);
- ii *metacognitive strategies*, involving higher-order strategies aimed at analyzing, monitoring, evaluating, planning, and organizing one’s own learning process;

- iii *social strategies*, involving interpersonal behaviours aimed at increasing the amount of L2 communication and practice the learner undertakes (e.g., initiating interaction with native speakers, cooperating with peers);
- iv *affective strategies*, involving taking control of the emotional (affective) conditions and experiences that shape one's subjective involvement in learning.

The next part of the review of literature will present grammatical morphemes in relation with the morphemes that will be analysed in the second language acquisition.

2.4 Grammatical Morphemes

A morpheme is called a minimal unit of meaning or grammatical function. When we look at the example of English word forms such as *talks*, *talker*, *talked*, *talking* should consist of one element *talk*, and a number of other elements-morphemes-such as *-s*, *-er*, *-ed*, *-ing*.

There are two types of morphemes: free morphemes which can occur by themselves as single words (*talk*); whereas, bound morphemes which cannot stand by themselves, always attached to another form (*-s*, *-er*, *-ed*, *-ing*). These free and bound morphemes can be seen in detail in figure 2 (Yule, 1985).

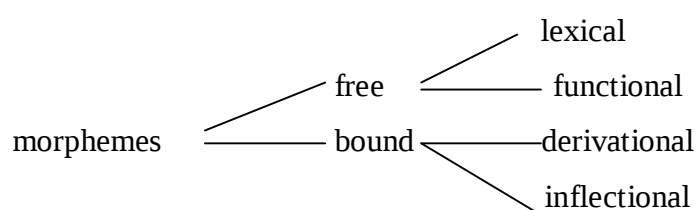


Figure 2.3 Different categories of morphemes

In the free morphemes category, lexical morphemes carry the content of messages and they are ordinary words such as *boy*, *man*, *house*, etc. On the other hand, functional morphemes are functional words in the language such as conjunctions, prepositions, articles, and pronouns.

The set of bound morphemes is divided into two: derivational morphemes which are used to make new words in the language and also used to make new words of a different grammatical category as such *-ness* changes the adjective *good* to the noun *goodness*. The other type is inflectional morphemes which are used to show aspects of the grammatical function of a word such as singular-plural (*-s*), past tense(*-ed*), comparative(*-er*) or possessive(*'s*) form. The categories of morphemes can be seen in the example below.

Example	The	boy	-‘s	wild	-ness
	(functional)	(lexical)	(inflectional)	(lexical)	(derivational)
	shock	-ed	the	teach	-er
	(lexical)	(inflectional)	(functional)	(lexical)	(derivational)

As Radford (2004, p.19) presents “although English has a highly impoverished system of inflectional morphology, there are nonetheless two major categories of word which have distinctive inflectional properties – namely nouns and verbs. We can identify the class of nouns in terms of the fact that they generally inflect for number, and thus have distinct singular and plural forms – cf. pairs such as *dog/dogs*, *man/men*, *ox/oxen*, etc.” But there are several complications which should be focused on. There are irregular nouns like *sheep* which are invariable and hence have a common singular/plural form (cf. *one sheep*, *two sheep*). A second is that some nouns are intrinsically singular and so have no plural form by virtue of their meaning: only those nouns (called count nouns) which denote entities which can be counted have a plural form (e.g. *chair* – cf. *one chair*, *two chairs*); some nouns denote an uncountable mass and for this reason they are called mass nouns or non-count nouns, and so cannot be pluralized such as *furniture* – hence the forms of **one furniture*, **two furnitures* are ungrammatical. A third is that some nouns (e.g. *scissors* and *trousers*) have a plural form but no countable singular form (Radford, 2004).

In much the same way, verbs can be identified by their inflectional morphology in English. “In addition to their uninflected base form the citation form under which they are listed in dictionaries, verbs typically have up to four different inflected forms, formed by adding one of four inflections to the appropriate stem form: the relevant inflections are the perfect/passive participle suffix *-n*, the past tense suffix *-d*, the third person singular present tense suffix *-s*, and the progressive participle/gerund suffix *-ing*” (Radford, 2004, p.19).

In this study, we will investigate the issue of English verbal inflections in terms of how morphological knowledge is presented in the L2 grammar and how that knowledge is developed since Turkish is an inflectionally rich language in which the past tense and plural morphology is totally rule-governed. We will focus on learning and using past tense verbs, the three *-s* morphemes; namely, plural, possessive and third person, copula and auxiliary *be*.

2.4.1 Morpheme Order Studies in First Language Acquisition

The concept of grammatical morpheme was used in the first language acquisition research of the 1970’s to refer to morphemes having a grammatical instead of a lexical function in the sentence, both free morphemes such as “the” and “is” and bound morphemes

such as “-s” that indicates plural number in noun phrases (Cook, 1993). And if there is an order in the acquisition of verb and noun morphemes had been an issue attracting the attention of many child language researchers in 70’s. Brown (1973) studied three children who were native speakers of American English. The data for two of the children were collected at weekly intervals over a five-year period beginning at the age of 17 months; whereas data for the third child was collected over a one-year period beginning at the age 18 months. Analysis of his data revealed that these three children learned fourteen grammatical morphemes in a similar order. Brown (1973) explained the choice of grammatical morphemes as;

...grammatical morphemes are obligatory in certain contexts, and so one can set an acquisition criterion not simply in terms of output, but in terms of output-where-required. Each obligatory context can be regarded as a kind of test item which the child passes by supplying the required morpheme or fails by supplying none or one that is not correct. This performance measure, the percentage of morphemes supplied in obligatory contexts, should not be dependent on the topic of conversation or the character of the interaction. (1973, p.255)

Table 1 shows the fourteen morphemes isolated by Brown in the acquisition order demonstrated by the three children.

Table 1.Acquisition order for the fourteen morphemes in Brown (1973)

Morpheme
1.Present progressive <i>-ing</i>
2-3. Prepositions <i>in, on</i>
4.Plural <i>-s</i>
5.Past irregular
6.Possessive <i>-‘s</i>
7.Uncontractible copula
8.Articles
9.Past regular
10.Third person regular
11.Third person irregular
12.Uncontradictable auxiliary
13.Contradictable copula
14.Contradictable auxiliary

Brown (1973) argued that the acquisition of some grammatical morphemes in English could be explained by their grammatical and/or semantic difficulty and could not be explained by their frequency in the input. Likewise, adding or changing vowel sounds is more noticeable than adding or changing consonant sounds. Adding vowels creates syllables which then must receive some degree of stress. A change from ‘play’ to ‘playing’ is more noticeable

than a change from ‘jump’ to ‘jumped’ (Steinberg, 1991). The factors that determine the order of acquisition of morphemes might be frequent occurrence in utterance-final position, syllabicity, a straightforward relation between form and meaning, few or no exceptions in the way it is used, allomorphic invariance, and clearly discernable semantic function in O’Grady, Dobrovolsky, Aronoff (1997).

Brown’s longitudinal study was based on the observations of three children; on the other hand, de Villers and de Villers (1973) conducted a cross-sectional study on twenty one English speaking children and compared their data with Brown’s 14 morphemes for his three children. Their results were very similar to Brown’s longitudinal study moreover; they ranked the morphemes according to the relative accuracy with which they were used by the subjects.

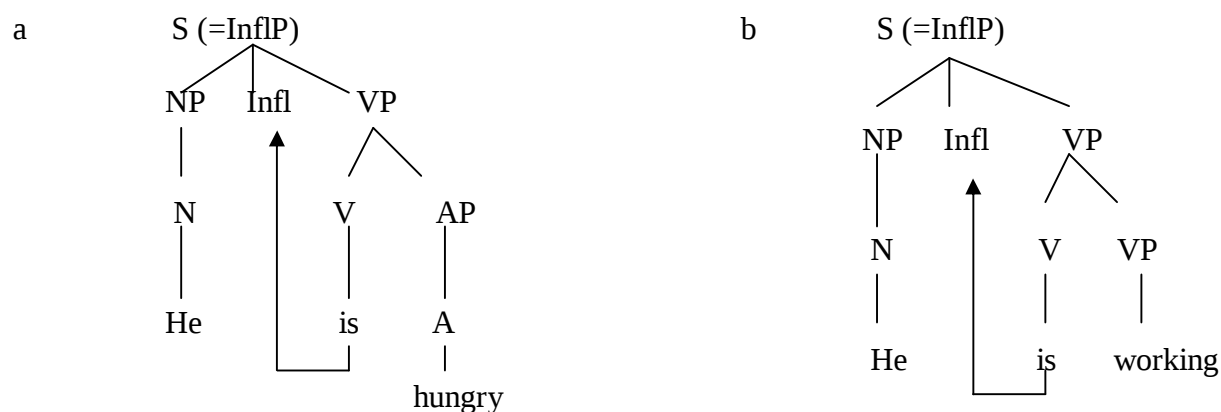
2.4.2 Morpheme Order Studies in Second Language Acquisition

Research on second language acquisition focused on whether the developmental sequence in L2 learning was the same as for L1 learning. The following order was found (O’Grady, Dobrovolsky, Aronoff, 1997):

Table 2. Developmental order for second language acquisition

Morpheme
1. <i>-ing</i>
2. Copula <i>be</i>
3. Articles
4. Auxiliary
5. Plural <i>-s</i>
6. Irregular past
7. Regular past
8. Third person <i>-s</i>
9. Possessive <i>-s</i>

As seen in Table 2, there are some similarities between the orders in first language and second language acquisition but there are also some differences. Auxiliary and copula *be* are acquired earlier in L2 than in L1 and the possessive morpheme *-s* is acquired later in L2 than in L1. “Children acquire *be* as a main verb before they acquire *be* as an auxiliary verb. So, children produce sentences that have only a copula verb (*e.g. He is hungry*) before they produce sentences that include an auxiliary plus a main verb (*e.g. He was working*)” (O’Grady, Dobrovolsky, Aronoff, 1997, p. 493). Figure 2.4 shows the copula versus auxiliary *be*.

Figure 2.4 Copula versus auxiliary *be*

For O'Grady, Dobrovolsky, Aronoff (1997), the structure in b has an extra level of complexity since it embeds a verb phrase within the verb phrase. Second language learners are able to use both the simple copula and auxiliary verbs quite early on. This may result from the adult's greater ability to handle complexity in general cognitive terms or because of controversial and unresolved issues on children's linguistic systems.

The three -s morphemes appear in the order of plural, possessive, and third person in children's first language. "Phonetically, these morphemes have the same realization, so we can't say that the order reflects phonological complexity. The order might be explained by figure 1 noting that plural is a word-level phenomenon (e.g. dogs), possessive is a phrase-level phenomenon (e.g. [the king of England]'s horse, not [the king]'s of England horse), and third person marking involves a relation between the verb and a phrase (the subject) elsewhere in the sentence (e.g. [That man] usually thinks too much)" (O'Grady, Dobrovolsky, Aronoff 1997, p.494).

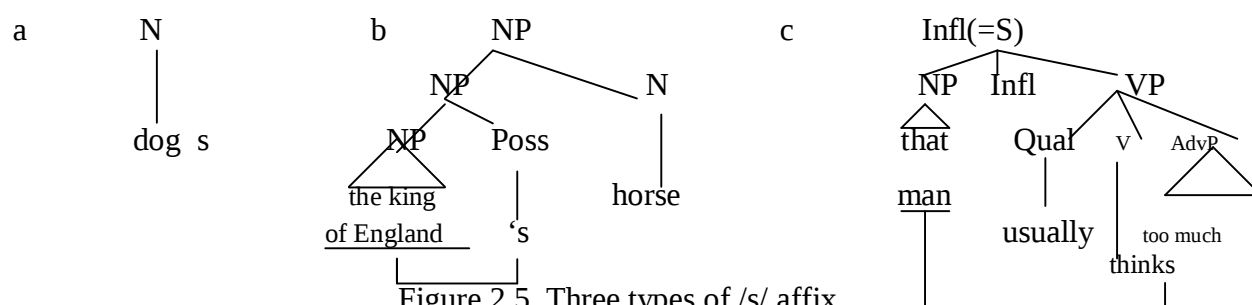


Figure 2.5. Three types of /s/ affix

Adults acquire the plural early; whereas, the possessive and third person marking appear later. This may be from not having the processing capacity to produce well-formed higher-level structures. In addition, adults do not seem to find interphrasal morphology more difficult than phrasal morphology since they have already acquired the grammar for their first

language that has both phrase-level and interphrasal morphology. However, children have to form a hierarchical structure of a grammar for the first time by building the structure from the bottom up (words- phrases- sentences) (O'Grady, Dobrovolsky, Aronoff, 1997).

In the studies of morphological order in L2, Dulay and Burt (1973) demonstrated that there is a consistent order of morphemes of three different groups of Spanish speaking children. They conducted their study with 151 English learning children at the age of 6 and 8 from two different L1 groups: 60 Spanish speaking children and 55 Chinese speaking children (1973).

They collected samples of speech through the BSM (Bilingual syntax Measure); this test elicits a range of grammatical structures by asking the learners 33 questions about a series of seven cartoon pictures and they found that these children acquired the same morphemes approximately the same order. This result was important for the arising discipline of second language research in the early 70's.

Bailey, Madden, Krashen (1974) conducted a study with 73 adults learning English: 33 Spanish speaking group and 40 non-Spanish speaking group including Greek, Persian, Italian, Turkish, Japanese, Chinese, Thai, Afghan, Hebrew, Arabic, and Vietnamese. This study generalized the results of Dulay and Burt's (1978) child studies to adults and found a similar order of acquisition for the same set of morphemes.

Larsen-Freeman (1978) carried out cross-sectional study of five tasks-reading, writing, listening, imitating, speaking-with 24 adult learners of ESL who had four native-language backgrounds: Arabic, Japanese, Persian, and Spanish. She found that the functor orders were very consistent across different language backgrounds; however, she identified variation in the orders across different tasks: BSM, a picture-cued sentence repetition test, a listening comprehension test, a multiple-choice reading cloze test, and a fill-in-blanks writing test. And also she found that frequency was the main factor that determined accuracy order (1976).

Hakuta (1976) reported on a longitudinal study of five-year old Japanese girl acquiring English as a second language and he found different order of accuracy from the cross-sectional studies. Rosansky (in Kwon, 2005) combined cross-sectional and longitudinal methodology in the study of six Spanish-speaking adult learners of English and pointed out the importance of individual variability in the accurate use of functors. Also Makino (in Cook, 1993) demonstrated the same order of morphemes of English learners of Japan with the orders obtained in most of the studies with ESL learners. He collected data using fill-in-blanks task from 777 high school students of English studying in their own country, Japan. The result

is that the sequence is broadly true of L2 learners in classroom setting in their own country as well as those in a foreign country.

Lightbrown (in Cook, 1993) conducted a study with 175 French-speaking children between the ages 11-17 learning English in Canadian classrooms. The data was collected through recordings and oral picture description over several months. He found copula and auxiliary be earlier than three –s morphemes: plural, 3rd per.sing. and possessive.

Table 3 presents the order of acquisition of morphemes in English adapted from Jeong (in Kwon, 2005)

Table 3. Order of Acquisition of English Morphemes in Major L1 and L2 Studies

L1 Studies		L2 Studies				
Brown (1973)	de Villiers and de Villiers (1973)	Dulay and Burt (1974b)	Bailey, Madden, Krashen (1974)	Larsen-Freeman (1975)	Hakuta (1976)	Rosansky (1976)
		Children (Spanish and Chinese)	Adults (classified as Spanish and non-Spanish)	Adults (Arabic, Japanese, Persian, and Spanish)	Child (Japanese)	Children, Adolescents, Adults (Spanish)
N=3	N=21	N=60 Span. 55 Chin.	N=73	N=24	N=1	N=6
1 Pres. Prog.	2 Pres. Prog.	1 Art.	1 Pres. Prog.	1 Pres. Prog.	2 Pres. Prog.	1 Pres. Prog.
2.5 on	2 Plural	2 Copula	2 Plural	2 Copula	2 Copula	2
2.5 in	2 on	3 Prog.	3 Contr.Cop.	3 Art.	2 Aux.	3
4 Plural	4 in	4 Simple Plural	4 Art.	4 Aux.	4.5 in	4 Art.
5 Past Irreg.	5 Past Irreg.	5 Aux.	5 Past Irreg.	5 Short Plural	4.5 to	5 Copula
6 Poss.	6 Art.	6 Past Reg.	6 Poss.	6 Past Reg.	6 Past Aux.	6 Aux.
7 Uncon.Cop.	7 Poss.	7 Past Irreg.	7 Contr. Aux.	7 Sing.	7 on	7 Poss.
8 Art.	8.5 3 rd Pers. Irreg.	8 Long Plural	8 3 rd Pers. Pres.	8 Past Irreg.	8 Poss.	8 Past Irreg.
9 Past Reg.	8.5 Contr. Cop.	9 Poss.		9 Long Plural	9 Past Irreg.	9 Long Plural
10 3rd Pers. Reg.	10.5 Contr. Cop.	10 3rd Pers. Sing.		10 Poss.	10 Plural	10 Past Reg.
11 3 rd Pers. Irreg.	10.5 Past Irreg.				11 Art.	11 3rd Pers. Reg.
12 Uncontr. Aux.	12 Uncontr. Cop.				12 3rd Pers. Reg.	
13 Contr. Cop.	13 Contr. Cop.				13 Past Reg.	
14 Contr. Aux.	14 Uncontr. Aux.				14 Gonna Aux.	

Most of the morpheme studies in L1 acquisition elicited data only through oral tasks, whereas in research of L2 acquisition variety of methods were used such as oral tasks, written tasks, and mixed tasks (Kwon, 2005). The tasks used in the studies are BSM test (Bilingual Syntax Measure), SLOPE test (Second Language Oral Production English) introduced by Fathman(1975),MAT-SEA-CAL Oral Proficiency test introduced by Mace-Matluck (in Kwon, 2005).

The morpheme studies in 70's showed a natural order of acquisition of learners of English as a second language regardless of age, different L1 backgrounds and learning environment; whereas, in the 80's researchers' interest turned into the determinants of acquisition order (Kwon, 2005).

Goldschneider and DeKeyser (2001) conducted a multiple regression analysis of the results of morpheme order studies and pointed out that there were five factors in the total variance in the acquisition order of grammatical morphemes: perceptual salience (e.g., the morpheme-ing, as in talking, can receive stress and is salient, whereas the morpheme-ed, as in talked, cannot), semantic complexity (defines how many meanings are expressed by a particular form), morphological regularity (the degree to which the functors are or are not affected by their phonological environment), syntactic category(the characteristics of each functor from the point of view of Functional Category theory), and input frequency (the number of times a given structure occurs in language to which the learner is exposed) .

According to Goldschneider and DeKeyser (2001)

More research would be needed to test the importance of other predictors, including L1 transfer. It would also be interesting to try to tease apart the individual determinants' effects on acquisition in order to establish with more certainty whether the combination of factors accounts for the order through a cumulative effect or through the interaction of the factors.....Research on acquisition orders and possible predictors in other languages is needed to determine to what extent, if any, these factors make universal predictions about what will be acquired early or late in a given language.(p. 63)

2.4.3 The Order of Morphemes: Plural-s, Possessive-s, and 3rd Per. Sing.-s, Copula and Auxiliary *be*

Plural noun-s and third person singular verb -s are acquired at different time by young children, in fact, plural noun inflections are earlier attainments than third person singular inflections with the help of higher frequency and longer duration (Hsieh, Leonard, and Swanson, 1999). According to explanations, plural nouns have greater semantic salience than third person singular inflections which resulted in hierarchy of grammaticizability (Pinker, 1984; Slobin, 1985 in Hsieh, Leonard, and Swanson, 1999). In the case of L2 learners, Ionin and Wexler (2000) found that there was low omission rate of plural-s as opposed to third person singular-s in their study with twenty Russian Speaking children learning English. And

their findings are consistent with the findings of Zobl and Licerias (in Ionin and Wexler, 2000) that plural-s is acquired earlier than third person singular-s by adult L2 learners.

Children acquire the three -s morphemes in the order plural, possessive, and third person in their first language. However, the possessive morpheme -'s is acquired later in L2 than in L1 which leads us to the point that adult learners have already acquired the grammar of their first language; whereas, children have to set up a hierarchical structure of a grammar for the first time in their first language (O'Grady, Dobrovolsky, Aronoff, 1997). Radford and Galasso (in Galasso, 2004) pointed out that "children show asymmetrical development regarding the complete formation of the dual mechanism model- i.e., while the mechanism for word/stem acquisition may be fully (or at least partially) developed from the outset of early child speech, the more formal mechanisms dealing with affix structures and the stem+affix separation involves a more protracted development" (p.99). Their data indicated that English children start with 'No Agreement'/'No Inflection' stage-one of acquisition in which they omit rule-based inflections and the data of 3;2 age child showed neither usage of possessive 's nor verbal inflected +s in obligatory contexts.

In doing the grammatical analyses of 'be' Brown (1973) found that the copula-auxiliary distinction was a functional one and that auxiliary use in obligatory contexts developed more slowly than copula usage. In the comparison of the morphological development in first language and in second language, auxiliary and copula *be* are acquired at a relatively earlier point in L2 than in L1 (O'Grady, Dobrovolsky, Aronoff, 1997). Lardiere (in Ionin and Wexler, 2000) stated that an adult L2 learner of English produces hardly any affixal-s inflection; on the other hand, he/she produces many *be* forms. Also Zobl and Licerias (in Ionin and Wexler, 2000) agreed that affixal inflection is problematic for L2 learners rather than suppletive agreement such as the use of *be* copula and auxiliary forms and this results in slow acquisition.

According to Jiang (2004) there are two different approaches that can be identified in the SLA literature about the L2 learners' difficulty with inflectional morphemes such as low accuracy rate in the use of inflectional morphemes. The first approach (competence deficit approach;CDA) assumes the difficulties reflect a certain deficit in the learner's L2 competence. Thus, the difficulties are located at the representation or competence level. In this model L2 learners can use conscious linguistic knowledge to monitor and modify L2 output before they have acquired subconscious competence for a structure and this model showing resemblance with Krashen's (in Jiang, 2004) monitor model.

The second one (performance deficiency approach; PDA) attributes such difficulties to a certain performance deficiency and thus the difficulties lie at the processing or control level. This model resembles with Sharwood Smith's competence/control model (in Jiang, 2004). Sharwood Smith argues that L2 learning involves both competence change and control change and some rule or principle may be acquired (in the competence sense) but suffer a long delay before full control is established. Thus, L2 learners may not always have control over their knowledge of the L2.

2.5 Past Tense in English: Regular and Irregular Forms

In English past tense inflection, the physical shape of the verb changes according to encoding the relative time of occurrence of the referent event and the speech act (Pinker, 1993). English verbs come in forms: regular and irregular. Regular past tense inflection is predictable and computed by a rule resulting in addition of the suffix *-d* to the verb stem. Speakers are allowed to inflect an unlimited number of new verbs by adding the suffix *-d* which has three variants (*-d*, *-t*, *-ed*). In contrast to regulars, irregular verbs form a closed list about 180 irregular verbs and they are unpredictable in form for example *hit-hit*, *come-came*, *feel-felt*.

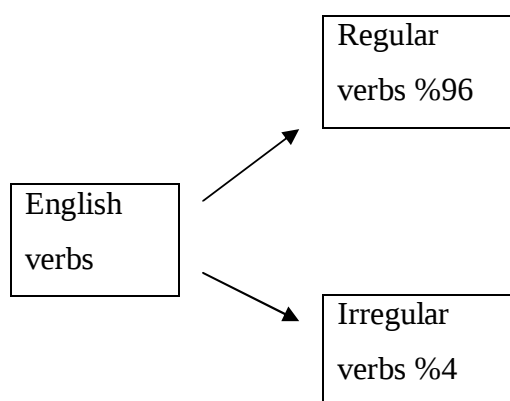


Figure 2.6 The distribution of verb types in English adapted from Ragnarsdóttir et al in Jensvoll, 2003

Bybee and Slobin (in Rumelhart and McClelland, 1993) divided the irregular verbs into nine classes as follows:

- I. Verbs that do not change at all to form the past tense, e.g., *beat*, *cut*, *hit*.
- II. Verbs that change a final /d/ to /t/ to form the past tense, e.g., *send/sent*, *build/built*.
- III. Verbs that undergo an internal vowel change and also add a final /t/ or /d/, e.g., *feel/felt*, *lose/lost*, *say/said*, *tell/told*.

IV. Verbs that undergo an internal vowel change, delete a final consonant, and add a final /t/ or /d/, e.g., *bring/brought, catch/caught*.

V. Verbs that undergo an internal vowel change whose stems end in a dental, e.g., *bite/bit, find/found, ride/rode*.

VIa. Verbs that undergo a vowel change of /i/ to /a/ e.g., *sing/sang, drink/drank*.

VIb. Verbs that undergo an internal vowel change of /i/ or /a/ to /ʌ/ e.g., *sting/stung, hang/hung*.

VII. All other verbs that undergo an internal vowel change, e.g., *give/gave, break/broke*.

VII. All verbs that undergo a vowel change and that end in a diphthongal sequence, e.g., *blow/blew, fly/flew*.

In this study, the focus will be on whether this kind of variation in past tense inflection in second language will have any influence on Turkish in which the past tense inflection is totally based on the rule adding /dI/ suffix to the verb stem.

2.5.1 Overgeneralization and U-shaped Model for the Acquisition of Past Tense

By the time the child is 3 years old, he or she goes beyond telegraphic speech forms and uses some of the inflectional morphemes that demonstrate the grammatical function of the nouns and verbs used. The marking of regular plural form with the –s form and the appearance of irregular past tense forms, children make overgeneralization such as *foots* and *goed* (Yule, 1985). These forms do not come from the product of imitation because they do not appear in the input from adults. These non-adult forms can be evidence that children form generalizations which make them to produce linguistic utterances they have not encountered (Crain, Lillo-Martin, 1999). These errors tell us two things according to Crain and Lillo-Martin “first, overregularizations show that children are rule-makers; they are able to detect regularities in the input, and to go beyond them to produce novel, rule-governed forms. Second, they show that certain language-particular idiosyncrasies are the source for potential errors of commission”(p.32).

Evidence for the productivity of the regular and irregular form of verbs was given in U-shaped model by Berko, Marcus and Ervin (in Bloom, 1993). The standard characterization of the errors like ‘goed’ and ‘broke’ is a U-shaped curve, where the ‘U’ is marked as the percentage of correct performance over time. The left tail of the ‘U’ is the earliest stage of morphological production that the child is performing both regulars (walked) and irregulars (broke) correctly. This is followed by a long period of overgeneralization where the children

produce forms such as ‘goed’ and ‘brokek’. Finally, children stop overregularizing and return to adult-like competence as the right tail of the ‘U’.

2.5.2 Dual-Route Model: Rule-governed and Rote-learned

The existence of both overregularizations and U-shaped pattern of errors have been taken as strong evidence for the belief that language learning involves organizing linguistic knowledge into a system of rules and exceptions to those rules (Marchman, Plunkett and Goodman, 1997). How are verbs modified in order to indicate tense? The traditional account of this process in generative linguistics held that the past tenses of irregular forms are memorized by rote and all other—regular—forms are generated by a rule, e.g., in English, VERB + *-ed* (Pinker, 1999). For Pinker (1993), past tense inflection is an isolable subsystem in which grammatical mechanisms can be studied in detail. Meanwhile, it is computed independently of syntax, the subsystem that defines the form of phrases and sentences. The syntax of English forces its speakers to mark tense in every sentence, but no aspect of syntax works differently with regular and irregular verbs. Also the past tense marking has no relation with semantics in which there is no correlation between regular-irregular distinction and verb meaning. Moreover past marking is also independent of phonology in which the three pronunciations of the regular suffix (in *ripped*, *ribbed*, and *riddled*) do not represent three independent processes but a single suffix-d modified to conform with general laws of English sound patterning.

Words and Rules model of morphology (Pinker, 1998) distinguishes rote-learning of irregular morphological forms from rule-governed learning of regular morphology. According to him, rule-governing, characteristics of regular morphology, is not associated with specific lexical items, but it is generalised to all items of a class. So even new nouns and verbs can be pluralized or changed into past tense by regular rules. In contrast, irregular morphology is learned as individual items as rote-learned.

This model accounts for the acquisition of past tense and the plural in the following way. Younger children produce irregular forms, but whilst they are learning the regular rules, they reach the stage when they also produce overregularised forms of irregular past tenses or plurals. Overgeneralisations even spread to forms which are already marked for plurality, giving rise to the production of ‘double plurals’, e.g., *feets* (irregular plus /s/), *footses* (overregularised twice, first with the phonologically correct [s] and then with the appropriate realisation of /s/ for a singular noun ending in that phoneme). The theory claims that such

overregularisations provide support for the theory that language is innate. The unacceptability of regular plurals in compounds provides evidence that they are not stored in the mental lexicon whereas irregular plurals are (Pinker, 1998).

For Ramscar (2002) while the dual-route account involves both memory-based processing (for irregular inflection) and explicit, rule-based symbolic processing (for regular inflection), the single-route account proposes that all processing can be accounted for by (complex) analogies in memory, without the requirement for the explicit representation of rules. The categorisation of denominals has been called into question by Ramscar(2002), who has also shown that semantics play a crucial role in the choice of regular versus irregular form of nonsense past tense verbs. When participants were asked to complete sentences using nonsense verbs (e.g., *spling*), it was found that their response was more likely to be regular when the verb's meaning was close to that of other regular verbs (even ones which were not phonologically related) and more likely to be irregular if the meaning was reminder of an irregular verb.

Beck (in Herschensohn, 2003) finds that under certain circumstances near-native English L2 learners do not show a significant difference between more or less frequently used regular verbs in a timed response experiment, so she concludes that L2 learners store regular morphological information in the same way as native speakers. Likewise, Clahsen (1999) indicates that adults have access to two distinct processing routes, one accessing (irregularly) inflected entries from the mental lexicon and another involving morphological decomposition of (regularly) inflected words into stem+affix representations. In a longitudinal study on two teenagers learning French, Herschensohn (2003) found that the correct supplience in obligatory context and the regularising nature of the morphological errors support a model of L2 morphological competence related with rote and rule-based learning.

2.5.3 Single-Route Model

In opposition of the Words and Rules model, connectionist models hold that “morphological storage and processing can be accommodated by an associationism modelled on computer learning paradigms” (Herschensohn, 2003, p.28). Connectionist accounts of morphological processing and representation make no distinction between regular and irregular inflection. Morphology is generated by associative, memory-based structures. The classic single route model is that of Rumelhart and McClelland (1986), which used phonological similarity in order to deal with the problematic issue of the production of novel

past tense forms. Rumelhart and McClelland (1993) provided that children learn the rules of English past tense formation in any explicit sense. “We have shown that a reasonable account of the acquisition of past tense can be provided without recourse to the notion of a ‘rule’ as anything more than a *description* of the language. We have shown that, for this case, there is no *induction problem*. The child need not figure out what the rules are, nor even that there are rules. The child need not decide whether a verb is regular or irregular. A uniform procedure is applied as input to the past tense network and the resulting pattern of activation is interpreted as a phonological representation of the past form of that verb” (p.467).

Their model was a single layer connectionist network that was trained to take phonological representations of base forms as input and output the corresponding past tense forms. In this model there is no architectural distinction between regular and irregular forms (Rumelhart and McClelland, 1986).

Ellis and Schmidt (in Herschensohn, 2003, p.28), examining plural formation in second language, conclude that the behaviour of their subjects is “readily explained by simple associative theories of learning. It is not necessary to invoke underlying rule-governed processes”. In the connectionist study of Plunkett and Juola(1999) regular nouns, the most frequent type of inflection, were learned fastest and most accurately, while the network had the most difficulty with irregular nouns, the rarest category. The critical mass analysis of their study also shows that the number of nouns/verbs in the training set is the factor determining generalisation to novel forms. Phonological and frequency factors may contribute much to the variance in the acquisition rate for plural noun forms and past tense forms in young children.

2.6 Morphosyntactic Features of Turkish

Findings from the studies of grammatical development in typologically distinct languages suggest that more grammar does not necessarily make the task of the learner harder, just as less grammar does not make it easier (Erbaugh in Fletcher and Garman, 1986). The learning load changes according to different languages and different maturational stages. Turkish speaking children acquire mastery of the agglutinating morphology of Turkish in terms of complex but very regular and clear marked system of verb morphology as early as age 2 years (Ekmekçi, 1979, Aksu-Koç and Slobin 1985, Sofu 1995).

In Ekmekçi’s study (1979) by the age of 1;3, the child’s utterances had one or two morphemes and by that age the utterances were phonologically constrained, in that, words were limited to three syllables. However, morphological adjustments for vowel harmony and

voicing assimilation were correctly expressed. By the age of 2;4, utterances generally consisted of two to five words with as many as five inflectional suffixes attached to word stems which made it clear that suffixation cannot be the result of simple rote-learning. Turkish is classified as a head-final language with an unmarked SOV word order in main and embedded clauses. Since Turkish morphology is agglutinative, Turkish verbs are inflected for person, number and tense (Haznedar, 2003). According to the typology criteria presented by Dressler (2003), Turkish language is an agglutinative language which has the inflection in both noun and verb

- a. Noun inflection: French – Spanish – English – Dutch – Italian – German – Greek – Slavic languages – Lithuanian
- a'. Verb inflection: English – Dutch – German – Spanish – French – Italian – Slavic languages – Greek – Lithuanian
- b. Noun and verb inflection: Lithuanian – Slavic languages – Finnish – Hungarian – Turkish

In Turkish, the parts of a word combine in a predictable order. Inflectional morphemes are always used in the word final position whereas derivational suffixes precede inflectional suffixes. But there may be possibilities in which more than one inflectional and/or derivational suffix can be used in a word. A change in the order of the morphemes leads to ungrammatical forms. The morpheme order can be seen as follows (Yavuz, Balçı, Turan, 2000):

hasta				
ill				
hasta-lan				
ill -der				
hasta-lan-dı				
ill -der-past t.				
hasta -	lan	-	dı	- m
(noun stem)	(derivational morp)	(past tense marker)		(1 st person marker)

At first, the morpheme *-lan* as a derivational morpheme, is attached to the noun stem *hasta*. As a result, we produce verb: *hastalanmak* and then past tense marker *-dı* and first person singular marker *-m* come respectively.

2.6.1 Present Tense Marking in Turkish :-(A)r/-(I)r

In order to mark the present tense in Turkish, *-(A)r/-(I)r* is used and also it is used to mark generic meanings. Both generic and habitual make emphasis on the characterization of an entity (Yavaş in Yavuz, Balcı, Turan, 2000).

Present tense marking is presented as follows:

1 st sing.	<i>ara-r-ım</i>	(I call)
2 nd sing.	<i>ara-r-sın</i>	(you call)
3 rd sing.	<i>ara-r-0</i>	(he, she calls)
1 st plur.	<i>ara-r-ız</i>	(we call)
2 nd plur.	<i>ara-r-sınız</i>	(you call)
3 rd plu.	<i>ara-r-lar</i>	(they call)

2.6.2 Plural Marking in Turkish :-lAr

The morpheme *-lAr* is used to represent the concept of plurality, and lack of it implies singularity. The morpheme order in plural marking in Turkish can be seen as follows (Yavuz, Balcı, Turan, 2000):

<i>kitap</i>	<i>-lık</i>	<i>-lar</i>	<i>-(ı)m</i>
(noun stem)	(derivational morp.)	(plural marker)	(1 st person marker)

Plural marking (*-lAr*) comes before person marker. Person marker is always at final position. Conditioned by its phonological surrounding, two variations are possible for the plural morpheme as follows (Yavuz, Balcı, Turan, 2000):

[ler]	<i>ev-ler,</i>	<i>iş-ler,</i>	<i>söz-ler</i>
	(house-s)	(work-s)	(word-s)
[lar]	<i>okul-lar,</i>	<i>sınıf-lar,</i>	<i>kutu-lar</i>
	(school-s)	(classroom-s)	(box-es)

The choice between /e/ and /a/ is determined by the preceding vowel: *-lEr* after the front vowels, *-lAr* after the back vowels. This can be explained by vowel harmony in Turkish. The root-vowels in the first group of words are all front vowels. Thus, the suffix *-ler*, which also contains a front vowel, is attached. Conversely, the vowels in the second group, are non-front vowels. Thus the plural suffix has the form *-lar*, with a non-front vowel.

According to these examples, the vowel of the suffix agrees in backness with the vowel of the root. In Turkish, the rule is when a word contains more than one syllable, it is vowel of the last syllable which determines the backness of the suffix vowel.

There are two types of harmony in Turkish; backness harmony and rounding harmony. If the vowel of the suffix is not high vowel (i, e) then it agrees in backness. This is called

backness harmony. If the vowel of the suffix is a high vowel, then it agrees in both backness and rounding and this is called rounding harmony. For example, the suffix *-i* is a high vowel therefore it will have the forms *-i*, *-u*, *-y* as can be seen in the following examples:

kil	kil- <i>i</i>	kıl	kıl- <i>ı</i>
kel	kel- <i>i</i>	kat	kat- <i>ı</i>
kül	kül- <i>ü</i>	kul	kul- <i>u</i>
köy	köy- <i>ü</i>	kol	kol- <i>u</i>

In addition to the plural morpheme *-lar*, number is supported by a number of pronouns and adjectives as well.

Singular:	<i>her</i> ,	<i>her biri</i> ,	<i>biri</i> ,	<i>hiç kimse</i> ,	<i>hiçbiri</i>		
	(every)	(each)	(one of)	(nobody)	(none of them)		
Plural:	<i>bir çok</i> ,	<i>çok</i> ,	<i>birkaç</i> ,	<i>bazı</i> ,	<i>iki</i> ,	<i>üç</i> ,	<i>on</i>
	(a lot of)	(many)	(a few)	(some)	(two)	(three)	(ten)

Number marking is the lack of it in cases where plurality is explicitly marked with other quantifiers such as numbers. Turkish economizes on using markers having similar functions consecutively. Examples such as

<i>iki resimler</i>	<i>birkaç kitaplar</i>
two picture(s)	a few book(s)

are grammatically wrong. Both “*iki*” and “*birkaç*” represent the idea of more than one; therefore, only one, namely the quantifier, is used to avoid redundancy.

2.6.3 Possessive Marking in Turkish: *-(n)In*

Unlike other case markers which establish a relationship between the verb and its arguments, the genitive case relates two nouns to each other. One noun is the possessor and the other is the possessed in a possessive construction. The former is typically marked with the genitive marker and the latter is with the possessive marker which agrees with the possessor in person and number as in the example (Yavuz, Balcı, Turan, 2000, p. 105).

Ex: *çocuğ-un yeleş-i*
child-der. vest-acc.

2.6.4 Copula and Auxiliary *be* in Turkish

Copular verbs link the subject and the predicate of a sentence and in Turkish, copular verbs are *İmek*, *olmak*, zero copula, etc. “In Turkish, *-ImEk*, is inflected for person and number, as in *akıllı-yım*, *akıllı-sın*, *akıllı-yız*, *akıllı-sınız*, *akıllı-lar*.. Other forms of *-Imek* are manifested in forms, such as *idi*, *imiş*. In addition, Turkish has zero copula. In this case, the

verb is not pronounced, but it is realized in the predicate, as in *Ali çalışkan*” (Yavuz, Balci, Turan, 2000, p. 209).

The auxiliary *be* has a function roughly similar to the English verb ‘to be’ in such a sentence “*Orhan iyidi*”- Orhan is well- which contains three elements: subject (*Orhan*), predicate (*iyi*), and what we may call an auxiliary (*-dir*). Auxiliary links the subject with the predicate and is necessary for a complete sentence. In Turkish, auxiliary *be* is not a separate word but is a suffix or group of suffixes attached to the predicate (Underhill, 1985).

2.6.5 Past Tense Marking in Turkish /-DI/

The past tense morpheme applies to verbs, and it has eight allomorphs according to the preceding stem vowel and consonant. The suffix vowel and the stem vowel have to share the same specification for both backness and rounding. Also, the suffix consonant and the stem consonant have to share the same voicing. Regardless of the vowel and consonant harmony, past tense marker has a single form, *-DI*.

[dɪ] kal- dı	[tɪ] sars- tı
[di] gel- di	[ti] kes- ti
[du] uyu- du	[tu] tut- tu
[dü] yürü- dü	[tü] öt- tü

Since phonological rules of a language are language specific in that each language and each language may choose to utilize different phonological rules or same rules but with some differences (Yavuz, Balci, Turan, 2000). The reason for the eight allomorphs in the past tense marking can be explained by the phonological rules of Turkish.

Turkish does not allow voiced stops *b, d, g* and affricate to occur in word-final position and they change into *p, t, k* respectively. This rule is called Final Devoicing Rule and it states that voiced sounds become voiceless in word or syllable final position. In Turkish, only voiced stops and affricate undergo this rule, on the other hand, in the other languages such as German, Russian, Polish and Catalan, fricatives as well as stops and affricates devoice in word final position.

When such a rule is applied to the word *kitap - kitab-ı* /p/ becomes /b/ because the accusative suffix *-ı* is attached. But, this rule cannot be applied for words in which voiceless stops do not become voiced when vowel initial suffix is attached.

Since Turkish is an inflectionally rich language in which grammatical morphemes is totally rule-governed, we are going to investigate whether the rule-governed system of Turkish morphology has a hindering effect on the acquisition of English in classroom setting.

We will focus on learning and using past tense, three-s morphemes namely; plural-s, possessive-s, third person singular-s, copula and auxiliary *be*.

CHAPTER III

METHODOLOGY

3.0 Introduction

In this chapter, an overall design of the study will be presented in terms of the participants involved in the study, the instruments used while collecting data and the procedure in data collection.

3.1 Participants

The participants of the study were selected from the elementary level students of the Research and Application Centre for Foreign Languages (YADİM) at Çukurova University. The participants were between the ages of 18-21 and they were taking English courses in their first year at the university. They had a 4 year experience of English at high school with 4 hours a week while at the time of the study; they had 30 hours of English in a week for the first bloc of two months. After two months time, they took 24 hours of English. Although they had learned English at high school, they were placed as elementary level according to the placement test which was done at YADİM.

The number of the participants in written tasks related with present tense was 45, in past tense tasks in terms of writing the past forms of the verbs the number of participants was 50, in writing paragraphs related with their last week the number was 30, the participant number was 38 in writing the past form of novel verbs, in the picture telling task the participants were 30.

The number of participants in spoken task was 14 whereas; more students participated in written tasks. The reason for the decrease in the number of participants was students' not having competence in speaking although they had taken this language education seven months. The students taken part in spoken task were the same as the students participated in written tasks. They were chosen randomly while collecting spoken data and students who were willing to talk and participate in such an experience were chosen primarily.

3.2 Instruments

In this study, the data was collected by written tasks and spoken task. As for the written data, three free writing tasks consisting of writing a paragraph in which they would

write about their daily life in the present tense were given to participants. The second task was picture telling task in which the participants would be able to describe the picture of a house using plural-s, possessive-s, copula and auxiliary be and present continuous tense. The data for the past tense form of the verbs was collected using a list of verbs given to participants that they would write the regular and irregular forms. The verbs in the list were compiled from the books they had studied. Also the participants were given a list of novel words to write the correct past form of them. They were not allowed to look up the dictionary to find out the meaning of these verbs. For another past tense task the participants were asked to write a paragraph about their last week.

The data collected by spoken task consisted of three phases. In the first phase, the subjects were asked to choose one of the three topics and talk about it for five to ten minutes spontaneously. The topics were talking about their best/worst experience at school, the best film/play that influenced them and the city or place mostly affected them. In the second phase, they were interviewed about their daily life, school life, hobbies and free time activities. In the third phase, they were shown a series of picture to form a story about it. The sessions took 15 to 20 minutes and the sessions were recorded and transcribed by the help of portable micro cassette recorder.

3.3 Data Collection

The data was collected through free writing tasks, picture telling task, verb lists and spoken task. The data was collected in these periods of time:

Tasks given	Time of the tasks
Write sentences with present tense	03.10.2005
Write a paragraph in present tense	10.10.2005
Write a paragraph in present tense	17.10.2005
Describe the house and the people in the house(sing-pl., possessive, present progressive)	24.10.2005
Write the past form of the verbs in the given list	07.11.2005
Write a paragraph in past tense	11.11.2005
Write the past form of the non-verbs	18.11.2005
Spoken task	24.04.2006

The written tasks were collected within two months when the participants learned target structures: copula *be* and auxiliary *be*, singular-plural, possessive-s, present tense, and past tense. The tasks were collected weekly and all the written tasks were given in the classroom as a part of a lesson. For that reason the participant number changed while applying the tasks due to absence of some students.

Although the participant number was high in the written tasks, in the spoken task the number was rather low since the participants were not entirely comfortable while speaking English. The participants were encouraged to talk about the subjects they were mostly interested in such as their daily life, university life, hobbies, best films/books, etc. The spoken data was collected within two weeks after the lessons and the sessions took 15 to 20 minutes out of the classroom. Since it was the first time for them to participate in such an experience with a recording machine, they sometimes felt uncomfortable while speaking. Each participant was interviewed alone in the sessions to make them feel comfortable while speaking and describing pictures.

3.4 Data Analysis

In this part, analysis of the data from written tasks and spoken task will be presented. Written tasks were obtained from students with their hand writing. The tasks were given as a material used as a part of the lesson. All the sentences were observed and counted according to the correct and incorrect usage of 3rd person singular-s, possessive-s, plural-s, copula and auxiliary *be* and past tense whether the participants used regular or irregular forms of the verbs. Free writing tasks and picture telling tasks were listed as correct, incorrect, incorrect usage and the lists of past tense verbs were analysed according to regular, irregular forms, incorrect forms of verbs, no change and no answer.

Spoken data were collected by the help of a portable micro cassette recorder and transcribed as soon as possible after the recording sessions in order to present details that occur during the sessions. At the beginning of each session, information about the recording-date and time was written down.

In transcriptions, a simple one-column format was used. Each speaker's turns were listed sequentially and they were represented with the first letter of their names. All interactions were transcribed in full including incorrect pronunciations, incorrect usage, omissions and hesitations. The investigator and the participants' utterances started with capital letters. The phases of the interactions were written at the beginning of the

transcriptions. Full stops (...) were used in transcriptions where the words of the participant were not understood. The following text is an example of the transcription taken from the recording of the tenth participant.

Interview

D: what is your name?

B: My name is Burcu.

D: How old are you?

B: I'm nineteen years old.

D: What do you do in your free time?

B: I listen to music, I go to swimming pool

D: how many times?

B: once a week and I draw picture. I go to university picture course

D: how long?

B: when I come here

D: What kind of pictures do you draw?

B: any kind

Talking about the topics

B: When I...titanic. I like it. Because titanic film is sensitive and when I watch titanic I cry.

D: Can you talk about what it is about?

B: A man and a woman fall in love in the film and the man died

D: how?

B: the titanic is sank the ocean because the ship is very big there is a lot of people, a lot of rich people. All the poor people died because they locked in the ship so they died in the ship. So I cried a lot. I watched seven ...

D: times

B: yes

The written data and spoken data presented as described above and the results of data analyses will be discussed in the following chapter.

CHAPTER IV

RESULTS AND DISCUSSION

4.0 Introduction

In this study, we aim to search for the issue of second language (L2) verbal inflections in terms of how morphological knowledge is presented in the L2 grammar and how that knowledge is developed. We focused on learning and using the three -s morphemes; namely, third person singular, plural, and possessive, copula and auxiliary *be* and past tense verbs. For this purpose, written and spoken data was collected through tasks from the elementary level students of Research and Application Centre for Foreign Languages (YADİM) at Çukurova University.

In this chapter, the results of the analysis of the data are presented in terms of inflectional morphology in English with the orders of three-s morphemes namely: 3rd person singular, plural and possessive, copula and auxiliary *be* and past tense morphemes.

4.1 3rd Person Singular -s Morpheme in Written and Spoken Data

The data for present tense usage was collected by three free writing tasks from forty-five participants. In these three free writing tasks, participants were able to write their daily life, their routines, hobbies, etc. and also they gave information about their families, friends, and teachers. The tasks were given respectively when the participants had just learned present tense, then in the second week of the schedule and finally in the third week of the semester. Participants were asked to write their paragraphs during the lessons.

The collected data was analysed and the results were presented in terms of correct and incorrect usage of present tense and the nature of these incorrect usages. The results of the three free writing tasks in which forty-five participants would write about their daily life in the present tense were given in Table 4. The table was formed according to total sentences the participants produced and within these sentences samples related with present tense were chosen, then correct and incorrect usages were analysed statistically and their total percentages were presented.

Table 4. The distribution of present tense sentences produced by the participants

N	Total sentences			Sentences with present tense			Correct				Incorrect			
	F	M	SD	F	M	SD	F	%	M	SD	F	%	M	SD
45	2816	62	16.72	1390	30	9.72	1269	91	28	10.27	131	9	2	3.26

According to the table above, the total number of sentences that the participants produced was relatively high SD 16.72. This means the number of sentences they produced varied. For example, one participant produced 56 sentences in present tense, on the other hand another participant produced 15.

As for the results of correct usage of the present tense, SD is again relatively high (10.27). For example, the highest number of correct usage of present tense among the present tense sentences was 54, whereas, the lowest number was 8. Among the sentences with present tense, participants used present tense correctly with a percentage of 91. However, the distribution of the incorrect sentences had been homogenous as supported by a relatively low SD (3.26). It can be inferred that participants have made errors with similar frequencies.

The individual differences can be observed in Table 5.

Table 5. The performance of the participants in free writing tasks

Participants	% of total performance of 3 tasks	
	correct %	incorrect %
13	100	0
1	98	2
1	97	3
6	96	4
1	95	5
1	94	6
2	93	7
3	92	8
1	91	9
1	90	10
1	89	11
1	87	13
1	86	14
2	85	15
1	83	17
1	82	18
1	81	19
1	77	23
3	69	31
1	58	42
1	38	62
Total 45		

Table 5 demonstrates that thirteen participants made no error in their usage of 3rd pers.sing-s, on the other hand, twenty-two participants made errors in their writings. Although every participant was expected to have an increasing proportion in the usage of 3rd pers. sing-s, there were participant who had lower rates in their performances. Four of the participants have percentages lower than 80, moreover, one of the participants performance was %38 which demonstrated a very low performance in his/her writing.

As for the type of errors observed in written tasks, regardless of individual performance, participants mostly omitted 3rd person singular-s in sentences related with present tense. In order to examine the nature of the incorrect usages of 3rd person singular –s and the other incorrect usages of present tense, a detailed analysis was done and presented in Table 6.

Table 6. Analysis of the incorrect usages in the present tense

Incorrect usages	Frequency of the incorrect usage
Omission of 3rd per.sing. –s (<i>He drive a car</i>)	78
Usage of 3rd per.sing –s with 1st per. sing. and 3 rd per pl. (<i>I likes listening to music. Children usually likes chocolate</i>)	8
Don't +verb 1 with 3rd per. sing (<i>He don't play chess</i>)	7
Sentences with copula be (<i>They are understand</i>)	5
Omission of verb in negative sentences with 3rd per. sing. (<i>She doesn't coffee</i>)	4
Does +verb 1 with 3 rd per.sing (<i>She does work</i>)	3
Doesn't +verb with 3rd per.sing.-s (<i>Oktay doesn't always studies lesson</i>)	3
Sentences with copula be and 3rd per.sing.-s (<i>She is speaks four languages</i>)	3
Omission of verb in negative sentences with 1st per.sing. (<i>I don't girlfriend</i>)	2
Don't +verb with 3rd per.sing.-s with 1 st per.sing (<i>I don't studies</i>)	2
Have not (<i>I have not a car</i>)	2
Use frequency adverbs as verb with 3rd per.sing.-s (<i>He usuallies go to cinema</i>)	2
Omission of verb in positive sentences with 3 rd per. sing. (<i>She homework everyday</i>)	1
Haves (<i>She haves a big flat</i>)	1
Copula be + don't +verb (<i>I'm don't like watching TV</i>)	1
Doesn't +verb 1 with 1 st per.sing. (<i>I doesn't have friends</i>)	1

According to the detailed analysis of the incorrect sentences presented in table 3, it was observed that 3rd person singular-s was mostly omitted as can be seen in the following examples.

Ex 1: He drive(s) a car.

Ex 2: She stay(s) at dormitory.

Ex 3: My father sometimes drink(s) coffee.

Since the total frequency of omission of 3rd person singular-s was higher than the other incorrect usages, this type of error was analysed in detailed among the participants whether the distribution of the omission of 3rd person singular-s was homogenous.

Table 7. Omission of 3rd person singular-s in the present tense usage of participants

N	Omission of -s		
	F	M	S D
45	78	1	2.30

The distribution of omission was homogenous because the SD was low (2.30) which resulted in statistically meaningful. This type of omission can be explained by the grammatical structure of Turkish since Turkish do not have any inflection in the third person singular, participants tend to omit -s in their sentences. Also Ionin and Wexler (2000) stated that L2 learners have difficulty in applying inflectional morphemes such as -s and -ed and fail to analyze these affixes as inflectional morphemes, thus they use the defaults as uninflected forms.

On the other hand, a few samples of overgeneralization of marking were seen such as using 3rd per.sing-s with 1st per.sing. and third per.plural . Since the number of other types of error in the usage of present tense was low, it would not be statistically significant to do any analyses. Examples 4 and 5 show the incorrect usage of -s with the incorrect personal pronouns.

Ex 4: I likes listening to music.

Ex 5: Children usually likes chocolate.

Furthermore, participants used *don't* with the 3rd per.sing instead of *doesn't*.

Ex 6: He **don't** play chess.

Ex 7. She **don't** drink tea.

Five of the incorrect samples were related with the usage of copula be with the verbs in present tense while they were writing about their routines in present tense (examples 8 and 9). Also other incorrect usages of copula *be* with present tense was seen with 3rd person singular-s as in the examples 10 and 11.

Ex 8: They **are** understand.

Ex 9: I'**m** read a book.

Ex 10: She **is** speaks four languages.

Ex 11: My brother **is** lives in Antalya.

In the first task, participants did not use a verb while they were making negative sentences with 3rd per.sing; whereas, in the other tasks that kind of omission was not observed.

Ex 12: She doesn't (drink) coffee.

In the negative sentences with 3rd per.sing, double marking samples were only seen in the first task such as *doesn't* with verbs having 3rd per.sing-s:

Ex 13: Oktay **doesn't** always **studies** lesson.

Ex 14: It **doesn't** **flies**.

Participants may try to generalize the 3rd per.sing-s with the negative form of the sentences at the beginning; hence, such samples were not observed in other tasks. Also they used *does* in positive sentences with 3rd pers.sing.only in the first task.

Ex 15: She **does** work.

For another analysis of present tense usage, spoken data was collected to see whether the participants did the same errors while they were talking about their daily life and hobbies.

In the spoken data, fourteen participants were interviewed about their daily life, school life, hobbies and free time activities. Although the questions asked in the interview session were related with participants' daily life such as "What do you like doing in your free time?, Can you talk about yourself?, etc., they did not use many sentences with present tense as compared with the written data. The total number of sentences they produced was shown in Table 8 and according to the table, the percentage of incorrect usage of 3rd per.sing.-s was higher than its correct usage.

Table 8. The analysis of students' usage of 3rd person singular-s from the spoken task

Spoken task	Correct usage		Incorrect usage		Total	
	F	%	F	%	F	%
3 rd per. sing. -s	5	41.6	7	58.3	12	100

The participants' correct and incorrect usage of 3rd per.sing.-s morpheme in spoken data was demonstrated in table 6. According to the spoken data, the sentences which had the omission of 3rd per.sing-s morpheme while the participants were talking and making a story from the series of pictures they were shown were not defined as incorrect usage. While the participants were describing the pictures, they might focus on using past forms of the verbs rather than present tense. Since it was not clear from the choice of participants whether past or

present tense was used. The samples for omission of 3rd person singular-s were not taken into account in the analysis of the present tense.

Table 9. Participants' correct and incorrect usage of 3rd per.sing.-s morpheme in spoken data

Participants	Correct usage	Incorrect usage
1*	-	1
2	-	-
3	-	-
4*	-	1
5	3	-
6*	-	1
7	-	-
8*	1	2
9	1	-
10	-	-
11	-	-
12	-	-
13*	-	1
14*	-	1
Total	5	7

In the analysis of the nature of the incorrect usage, all the incorrect samples of the participants were related with the omission of 3rd per. sing-s. Seven samples of these incorrect forms with (*) were given below.

Ex 16: He work in tourism company (1st participant)

Ex 17: He work in factory now (4th participant)

Ex 18: My aunt stay in İstanbul (6th participant)

Ex 19: My son like theatre (8th participant)

Ex 20: My husband like cinema

Ex 21: He wake up (13th participant)

Ex 22: My father work in İskenderun (14th participant)

The findings about the omission of 3rd per.sing.-s also support literature both in first and second language acquisition. In the first language acquisition Brown (1973) states that plural noun inflections are earlier attainments than third person singular inflections.

According to Hsieh, Leonard and Swanson (1999) "if plural noun inflections are registered earlier-helped in part by their higher frequency and longer duration-they could be used to identify new nouns. To be sure, third person singular verb inflections appearing in sentence – final position on occasion and their resulting longer duration could mislead the child into interpreting the word's grammatical category inappropriately" (p.541). Moreover, adults also acquire the plural early; whereas, the possessive and third person marking appear later. This may be from not having the processing capacity to produce well-formed higher-level

structures. In addition, adults do not seem to find interphrasal morphology more difficult than phrasal morphology since they have already acquired the grammar for their first language that has both phrase-level and interphrasal morphology. However, children have to form a hierarchical structure of a grammar for the first time by building the structure from the bottom up (words- phrases- sentences) (O’Grady, Dobrovolsky, Aronoff, 1997).

4.2 Plural-s Morpheme in Written and Spoken Data

In the analysis of picture telling task in which the thirty participants were asked to describe the house, the rooms, the materials and the people in the picture, the participants made use of plural-s. The plural-s morpheme was presented in table 10. The statistical analysis of both the total sentences related with plural-s and correct and incorrect usages of plural-s within these sentences were given in the following table.

Table 10. The distribution of plural-s morpheme usage in the written task

N	Total			Correct				Incorrect			
	F	M	SD	F	%	M	SD	F	%	M	SD
30	198	6	2.94	167	84.3	5	3.15	31	15.6	1	1.37

The detailed analysis of the picture telling task data, thirty participants produced 167 correct usage of plural-s, on the other hand they made use of incorrect plural-s in 31 sentences. The incorrect usage of plural-s according to statistical analysis showed homogenous structure among the participants since SD is very low (1.37).

In order to analyse the incorrect usage of plural-s data in detail, the samples were given in Table 11.

Table 11. Samples of incorrect usage of plural-s from the written task

Task	Plural -s
Incorrect Samples	Omission of –s with quantifiers *a lot of book, a lot of photo, a lot of picture *some flower(2), some toy, some dish *a few picture
	Omission of –s with numbers *two picture(4), two table, two plant, two brother, three son , four chair
	Overgeneralization *three persons
	Using –s with indefinite article <i>a</i> *a pictures a bookselves a toys a flowers
	Omitting -s with plural pronoun <i>their</i> * their name

In the detailed analysis of the incorrect usage of plural-s, it was observed that nouns used with quantifiers such as a lot of, some, a few didn't take plural-s. Moreover, the nouns used with numbers such as two, three, four didn't take plural-s either. As stated before in Turkish, plural marking can be omitted when there is a quantifier or a number so participants did not use any plural marking in their paragraphs.

Only one overgeneralization error was seen in the samples of the participants with the irregular form of *people* which was acceptable rather than *persons*; whereas, there were six samples of its correct plural form as *people*. This can be explained by plural system is widely over-presented by regular forms 'add a regular suffix' whereas there is only a handful of irregular forms (Marchman, Plunkett, Goodman, 1997). The other incorrect usages of plural-s were with the determiner *a* following noun with plural-s such as *a pictures* and with a pronoun *their* following *name* without plural-s: *their name*.

The data was collected from a spoken task in which the fourteen participants were asked questions related with their daily life and hobbies and they were shown a series of pictures to make up a story. The collected data was analysed in terms of plural-s and the distribution of correct and incorrect usages was demonstrated in Table 12.

Table 12. The distribution of plural-s morpheme usage in the spoken task

N	Total			Correct				Incorrect			
	F	M	S. D.	F	%	M	S. D.	F	%	M	S. D.
14	52	3	2.36	45	86.5	3	1.92	7	13.4	0.5	0.75

The results were the same as the data collected from the written picture telling task although participants used more plural-s morphemes in their sentences. While the participants used plural-s correctly in 45 sentences, they only did seven errors among the total of the sentences produced.

The detailed analysis of the plural-s usage in spoken data showed that there were similar incorrect forms that we observe in the written task. However, there was a new type of error observed in the spoken task as can be seen in the following table (Table 13).

Table 13. Samples of incorrect usage of plural-s in the spoken task

Task	Plural –s
Incorrect Samples	Omission of –s with quantifiers *a lot of forest, a lot of animal
	Omission of –s with numbers *three candle
	Addition of -s with number one *one years
	Using -s with indefinite article a *a friends
	Overgeneralization with uncountable noun *some cakes
	Omission of -s with plural sentence *there are no candle

As illustrated in the table, nouns used with the quantifier *a lot of* didn't take plural-s. Furthermore, the noun *candle* used with number *three* didn't take plural-s either, whereas the noun *year* and *friend* took the plural-s although they are utilized with the number *one* and the indefinite article *a*. Another incorrect usage of plural-s was related with overgeneralization of plural-s with uncountable noun as in *some cakes*. The type of error different from the errors

done in written task was omission of plural-s in the plural form of the sentence in which the participant should use plural-s with the noun candle as *there are no candle*.

4.3 Possessive-s Morpheme in Written and Spoken Data

In the task in which the participants made a description of the house, thirty of the participants used possessive-s in their sentences. Only a few of these possessive forms are incorrect. Table 14 demonstrates the distribution of correct and incorrect usage of possessive-s in picture telling task.

Table 14. The distribution of possessive-s morpheme usage in the written task

N	Total			Correct				Incorrect			
	F	M	SD	F	%	M	SD	F	%	M	SD
30	101	3	2.14	94	93	3	2.17	7	7	0.2	0.50

The participants used possessive-s in 94 sentences correctly, whereas, there are seven incorrect usages among the total number of sentences participants produced. The SD was very low as 0.50. The samples of incorrect use of possessive-s are as follows Table 15.

Table 15. Samples of incorrect usage of possessive-s in the written task

Task	Possessive –s
Incorrect Samples	*Tony room, * Dawn room
	*In the Tony bedroom
	*There are Tony and Paul bedrooms on the second floor (3)

In the incorrect samples of possessive-s, participants omitted possessive-s while they were describing peoples' belongings such as *Tony ('s) room*, *Dawn ('s) room*, in contrast, they used possessive-s correctly with 93 percent in their descriptions of the house in the picture.

In the spoken data there is only one sample of omission of possessive-s within nine usages. While one of the participants was talking about the weather in Tunceli, he omitted the possessive-s with the city Tunceli and produced *Tunceli weather*. This may not be stated as omission of possessive-s morpheme in the sentence while he was making a possessive relation between the city and its weather.

4.4 Three-s Morphemes: 3rd Person Singular, Plural, and Possessive

Regarding the three –s's, the analysis of the data revealed that plural -s and third person singular -s were learned and used at different stages parallel to the developmental difference indicated in the literature. As for the incorrect samples of 3rd pers.sing-s, omission rates were higher than other incorrect samples. Participants had difficulty in applying inflectional morpheme -s which does not exist in Turkish and they preferred uninflected forms.

In the plural-s samples, it was observed that there may be a transfer from Turkish (L1) as the participants did not use plural-s with quantifiers which are ungrammatical in Turkish. Moreover, plural-s was not over-generalized, although there is only one sample of overgeneralization.

In the analysis of possessive-s samples, participants did only a few errors resulted from omission of -s. This may be explained by the fact that in Turkish possessive marker is placed in the same order in English and also there is a period of omission of possessive marker in Turkish in which the children tend to omit possessive marker in their sentences for example the child produces *Hatice('nin) çanta* by omitting the possessive marker which should be placed after the person(Sofu, 1995).

4.5 Copula and Auxiliary *be* Morphemes in Written and Spoken Data

In the picture telling task, thirty participants used copula and auxiliary *be* in their sentences and the distribution of the correct and incorrect usages of copula *be* were given in Table 16.

Table 16. The distribution of copula *be* usage in the written task

N	Total			Correct				Incorrect			
	F	M	SD	F	%	M	SD	F	%	M	SD
30	285	9	4.59	269	94.3	8	4.55	16	5.6	0.5	1.00

While the participants were describing the house, the materials and the people in the picture, they used copula *be* correctly in their sentences with a percentage of 94.3 within 285 sentences they produced. The SD showed a homogeneous structure in the distribution of incorrect usage (1.00) also incorrect usage of copula *be* in the description of the picture had %5.6 which was very low.

Another distribution was carried out for the correct and incorrect usage of auxiliary *be* of thirty participants in the picture telling task and this was shown in Table 17.

Table 17. The distribution of auxiliary *be* usage in the written task

N	Total			Correct				Incorrect			
	F	M	SD	F	%	M	SD	F	%	M	SD
30	80	2	2.96	73	91.2	2	2.90	7	8.7	0.2	0.77

Similarly in the distribution of correct and incorrect use of copula *be*, the results were the same for the usage of auxiliary *be*. Although the correct usage of copula *be* (94.3%) was higher than the correct usage of auxiliary *be* (91.2), this difference was not statistically significant, (SD 0.77).

In the analysis of the incorrect usage of copula and auxiliary *be*, the same error types were observed: omission of copula and auxiliary *be* and number agreement problems as presented in Table 18.

Table 18. Samples of incorrect usages of copula and auxiliary *be* in the written task

Task	Copula <i>be</i>	Auxiliary <i>be</i>
Incorrect Samples	Omission of copula <i>be</i> * Mrs. Peterson business woman, He still young, The kitchen untidy and dirty *Paul, Down and Tony children, Those father, mother and baby. These people Mr. Peterson's family *Down in the living room, Tony's room in the toilet, Toilet near Tony's room, The television near the cupboard, The armchair in front of the table, The coffee table on the flower *Mrs. Peterson and Lindsay in the kitchen, Paul's guitar, sock and papers on the floor,	Omission of auxiliary <i>be</i> *Mrs. Peterson drinking tea, She reading newspaper, Tony wearing jumper, Down reading a newspaper, Mr. Peterson eating, Mrs. Peterson drinking tea kitchen
	Number agreement *There are one person. *Their name is	Number agreement *The Petersons' dog are coming into the kitchen

While the participants were describing the picture, they mostly omitted copula and auxiliary *be* in their sentences. Omission of *be* was observed regardless being singular or plural such as:

Ex 23: Mrs. Peterson **(is)** business woman

Ex 24: Paul, Down and Tony **(are)** children

Participants omitted copula *be* while they were writing sentences about the people in the picture or the rooms in the house using adjectives as in the following examples.

Ex 25: He **(is)** still young.

Ex 26: The kitchen **(is)** untidy and dirty.

Also omission of copula *be* was observed in the sentences related with the description of the rooms of the house in the picture using prepositions such as:

Ex 27: Toilet **(is)** near Tony's room.

Ex 28: The television **(is)** near the cupboard.

Another incorrect usage of copula *be* resulted from number agreement such as:

Ex 29: There **are** one person.

Ex 30: Their name **is** Paul, Tony, Down.

Within all the correct usage of morphemes, copula *be* had the highest percentage (94.3). Turkish students learning English master copula *be* earlier because they assume the existence of a verb is sufficient. And this finding is also supported with the L2 studies stating that copula *be* is acquired earlier than the other morphemes (Dulay&Burt, 1974; Larsen-Freeman, 1975; Hakuta, 1976).

Correct use of auxiliary *be* was also high (91.2). Nevertheless, there were few incorrect samples including omission of auxiliary *be* and number disagreement:

Ex 31: Mrs. Peterson **(is)** drinking tea.

Ex 32: The Peterson's dog **are** coming to the kitchen.

The analysis of fourteen participants' usage of copula *be* from the spoken task in which participants were interviewed about their daily life, their preferences in city, films, etc. and they were wanted to make up a story using the series of picture was shown in Table 19.

Table 19. The distribution of copula *be* usage in the spoken task

N	Total			Correct				Incorrect			
	F	M	SD	F	%	M	SD	F	%	M	SD
14	120	8	3.77	97	80.8	6	3.68	23	19.1	1	1.49

Participants produced 97 correct sentences consisted of copula *be*. The incorrect usage of copula *be* had the percentage of 19.1 having the SD as 1.49 which demonstrated homogenous structure among the participants incorrect usage of copula *be*. Another analysis was done according to the correct and incorrect usage of auxiliary *be* in spoken data and the results were presented in Table 20.

Table 20. The distribution of usage of auxiliary *be* in the spoken task

N	Total			Correct				Incorrect			
	F	M	SD	F	%	M	SD	F	%	M	SD
14	27	1	2.23	24	88.8	1	2.19	3	11.1	0.2	0.42

The distribution demonstrated a homogenous form among the correct and incorrect usage of the sentences having auxiliary *be*.

Both the percentage of correct usage of copula and auxiliary *be* were lower than the written task percentages; however, the type of incorrect usage was the same as the data collected from written tasks shown in table 21. Incorrect samples were presented in terms of omission of copula and auxiliary *be*, number agreement problems and omission of verb in a sample sentence for auxiliary *be* usage.

Table 21. Samples of incorrect usage of copula and auxiliary *be* in the spoken task

Task	Copula <i>be</i>	Auxiliary <i>be</i>
Incorrect Samples	Omission of copula <i>be</i> *Adana's people hotter than Ankara *They very heavy *That night birthday party *She tired(2) *Konya's people very nice *Adana's people cold *She house very messy *I like Istanbul because very big *Adana's people very kind. * People smilier * Different language important * Wild animals in the natural *Because funny * My father very ill *Istanbul historical city *I tired a lot.	Omission of auxiliary <i>be</i> *She sleeping/asleep.
	Number agreement *The actors is very good *There is a lot of people *There wasn't any candles *They was very heavy	Number agreement * Monica's friend were enjoying in this party
		Omission of verb *She was shopping centre

While participants were talking about the cities and making comparison between the features of cities or giving information about their families, they omitted copula *be* regardless of singular or plural form of the sentence as in the following examples.

Ex 33 : Adana's people **(are)** very kind.

Ex 34 : My father **(is)** very ill

The other type of incorrect usage was related with number agreement as in

Ex 35: The actors **is** very good.

Ex 36: There **is** a lot of people.

There were three incorrect usages of auxiliary *be* in spoken data in terms of omission, number agreement and omission of verb while one of the participants was talking about the girl in the picture, he produced *she was shopping centre* by omitting the verb *going* from the sentence.

Contrary to our expectations since Turkish has zero copula in the sentence and auxiliary *be* is used as copula *be* in the sentence in Turkish in which it is attached to a predicate as a suffix, there are very few errors which result from omission of the copula and auxiliary *be*. Turkish students learning English master copula *be* earlier because they assume the existence of a verb is necessary due to the teachers emphasis on the use of these items.

4.6 Past Tense Morpheme in Written Data

In this part of the data analysis, past tense morphemes in terms of regular and irregular forms were presented. The data was collected using a list of verbs given to participants that they would write the regular and irregular forms. The verbs in the list were compiled from the books they had studied. Also the participants were given a list of novel words to write the correct past form of them whether they were regular or irregular. For another past tense task, the participants were asked to write a paragraph about their last week.

4.6.1 Past Tense Morpheme in a Given List of Verbs

In the analysis of past tense morpheme in written data, a list of verbs was given to fifty participants and they were asked to write the regular and irregular forms of these verbs. The data was collected right after they were taught past tense in the lesson. The regular and irregular forms of the verbs are always presented separately in the lessons. At first regular verbs were presented and then irregular verbs were given to students to memorize.

The list given to participants covered twenty regular verbs and twenty irregular verbs. All of these forty verbs were compiled from the books they had studied. Participants were asked to fill in the list in the lesson in a given period without looking at their books. From this data, how English past tense morphology having two systems: rote learned or rule governed as defined by Pinker (1988) is acquired by Turkish learners of English although Turkish has a ruled based structure in past tense morpheme *-dI* that can be applied at the end of verbs to denote past form.

The verbs were presented as regular- irregular forms and the answers were given as correct, incorrect, no change and no answer in table 19. Regular verbs were more common in correct answers of the subjects whereas, irregular verbs had low percentages. For Pinker(1998) “the predictability and open-ended productivity of the regular pattern suggests that regular past tense forms are generated, when needed, by a mental rule, similar in form to other rules of grammar, such as to form the past tense of a verb, add the suffix-ed” (p.5). Even preschool children, after hearing a novel verb like *rick* , can easily create its regular past tense form,

such as *ricked* (Berko in Pinker, 1998). Moreover, children demonstrate their productive use of the rule in another way by overgeneralization. They produce errors such as *breaked* and *comed* in which they overapply the regular suffix to a verb that is not allowed in English.

Both the open endedness of regular verbs and rule based structure of Turkish may affect the choices of the participants for the past tense inflection. Students acquiring English as a second language also go through an overgeneralization stage. We also expected students whose native language is Turkish with a rule based structure overgeneralize often. Our data presented in table 22 support this expectation.

According to table 22, presenting the analysis of regular verbs, regular verb *study* had the highest percentages(100) that all the participants answered the past tense form of it correctly, whereas; the regular verb *remember* had the lowest percentage 34, only seventeen participants marked it as a regular verb. If we look at the first ten verbs-*study, marry, cry, listen, start, play, work, watch, happen, look*- we see that their percentages were higher than 80, on the other hand, the other ten verbs-*wash, walk, die, prepare, create, answer, brush, climb, deliver, remember*- had percentages lower than 80. But this does not mean that these verbs were answered as incorrectly. Beside the correct and incorrect forms of the verbs, participants also stated that there was no change in the verb for the past tense form or participants gave no answer for the past tense forms of these verbs. This can result from having no acquaintance with these verbs or not knowing the past forms of these verbs. When the participants are not sure about the past form of the verb, they did not take the risk of answering.

Table 22. Analysis of verbs in terms of regular and irregular forms

Regular verbs						Irregular verbs					
Verbs	corr.	%	no	no		Verbs	corr.	%	no	no	
			incorr.	change	answer%				change	answer%	
1-study	50	100	-	0	-	21-do	45	90	2	4	3
2-marry	47	94	-	0	-	22-become	44	88	2	4	4
3-cry	47	94	-	0	-	23-buy	33	66	9	18	7
4-listen	46	92	1	2	-	24-swim	31	62	12	24	7
5-start	44	88	-	0	2	25-get up	29	58	4	8	14
6-play	44	88	3	6	1	26-write	29	58	14	28	7
7-work	44	88	-	0	-	27-be	27	54	3	6	20
8-watch	43	86	1	2	1	28-win	27	54	10	20	12
9-happen	42	84	1	2	-	29-run	24	48	8	16	13
10-look	41	82	-	0	-	30-fight	22	44	11	22	15
11-wash	39	78	-	0	-	31-speak	22	44	14	28	12
12-walk	39	78	-	0	2	32-leave	20	40	19	38	11
13-die	38	76	1	2	1	33-lose	16	32	20	40	14
14-prepare	31	62	-	0	-	34-make	15	30	13	26	2
15-create	30	60	-	0	1	35-grow	15	30	15	30	1
16-answer	29	58	-	0	1	36-hit	12	24	18	36	20
17-brush	27	54	7	14	-	37-send	11	22	17	34	20
18-climb	26	52	4	8	-	38-read	9	18	16	32	25
19-deliver	25	50	2	4	1	39-think	6	12	21	42	23
20-remember	17	34	-	0	1	40-teach	4	8	30	60	1

Although irregular verbs had low percentages in correct answers, the verbs *do*, *become* had the highest common rate 90% and 88% respectively in correct answers. This can be explained by the high frequency of these verbs. As Pinker (1999) states “human memory traces generally become stronger with repeated exposure. Thus if a word is rare, its entry in the mental lexicon will be weaker” (p. 9). The frequency effect will be analysed in detail in a late task in which the participants were asked to write their week day by day in past tense.

Although the percentages of the past forms of irregular verbs *do* and *become* were high 90% and 88%, the rest of the percentages of correct forms for irregular verbs were not as high as the percentages of correct forms for regular verbs. The first eight verbs-*do*, *become*, *buy*, *swim*, *get up*, *write*, *be*, *win*- had the percentages higher than %54, on the other hand the rest of the verbs-*run*, *fight*, *speak*, *leave*, *lose*, *make*, *grow*, *hit*, *send*, *read*, *think*, *teach*- had lower percentages than 48. The lowest percentages was seen in the correct form of the irregular verb *teach* 8%. While the correct percentage was 8 for the verb *teach*, the percentage for the incorrect form of it was 60. But the other irregular verbs-*hit*, *send*, *read*, *think*- having lower percentages below 30 do not mean that all these verbs answered incorrectly since at least twenty participants did not write anything as a past tense form.

4.6.1.1 Regular Past Tense Morpheme in a Given List of Verbs

When the errors in the past form of regular verbs are investigated in detail, we see that participants made spelling errors, analogy, made connection with phonological similarity, novel verbs which do not follow any rule and they wrongly suffixed the verbs. The categories of errors for incorrect forms of regular verbs were given in Table 23.

Table 23. Samples of incorrect forms of regular verbs

Regular verbs corr. %	Incorrect forms of regular verbs				
	Spelling errors	Orthographic Analogy	Phonological Analogy	Novel verb	Wrongly suffixed
1-study 100	-	-	-	-	-
2-marry 94	-	-	-	-	-
3-cry 94	-	creat	-	-	-
4-listen 92	-	-	-	-	-
5-start 88	-	-	-	-	-
6-play 88	plaied pleyed	-	-	-	-
7-work 88	-	-	-	-	-
8-watch 86	watche	-	-	-	-
9-happen 84	-	-	-	happenen	-
10-look 82	-	-	-	-	-
11-wash 78	-	-	-	-	-
12-walk 78	-	-	-	-	-
13-die 76	-	dead	-	-	-
14-prepare 62	-	-	-	-	-
15-create 60	-	-	-	-	-
16-answer 58	-	-	-	-	-
17-brush 54	brused	brought	-	brash brosh	-
18-climb 52	-	-	clamb	clumb	-
19-deliver 50	-	-	-	dolever	delivers
20-remember 34	-	-	-	-	-

In the analysis of past forms of regular verbs, four **spelling errors** were observed for three verbs: *play*, *watch*, *brush*. Two of the participants made spelling errors in producing past form of *play*.

play-plaied

They drop the consonant *y* at the end of the verb although there is a vowel *a* and placed *-ied* as in the rule for dropping the consonant *y* if there is another consonant following it such as : *study-studied*, *carry-carried*. One of the participants wrote the past form of the verb as *pleyed*. Another participant produced *watche* by dropping the consonant *d* at the end of the verb as he was trying to write the regular form as *watched*. For the other example of dropping, one of the participants wrote *brused* for the regular verb *brush* by dropping the consonant *h* before the regular form-*ed*.

brush-brused

These are mainly spelling errors rather than errors stemming from incorrect application of grammatical morphemes.

Another type of incorrect form was forming a connection by **orthographic analogy** such as *cry-creat* showing similarity with the verb *create*. However, the participant dropped the vowel *e* at the end of the verb. One of the participants also made connection between the verbs *die-dead* although they belong to different grammatical categories as *die* is a verb and *dead* is the adjective

form of this verb. Another participant used the past form of different verb *bring- brought* for the regular verb *brush*.

The next type of incorrect forms of regular past tense verb is related with **phonological similarity** between the given verbs and responds to these verbs. Two of the answers to the past form of the verb *climb* were *clamb* which shows the rule for generative phonology applied to irregular morphology proposed by Chomsky & Halle and Halle & Mohanan (in Pinker, 1999).

climb-clamb similar to the change in (*lie-lay*)

Irregular past tense verbs tend to cluster with other phonologically similar past tense verbs (e.g., *sing/sang*, *spring/sprang*, *ring/rang*; *stink/stank*, *drink/drank*, *sink/sank*, etc.) and empirical evidence that novel verb stems can be inflected irregularly if they are phonologically analogous to existing irregular verb forms: the more phonologically similar a nonce to a pattern, the more likely it is to be irregularized (Bybee and Moder in Ramscar, 2002).

However, according to Pinker(1993) past marking is independent of phonology, which determines the possible sound sequences. He proposes that the past tense of *sink* is *sank* and the past tense of *ring* is *rang*, but the past tense of *cling* is not *clang*, but *clung*. Although there are changes in the past form of the verbs, in most irregular verbs the phonological content of the stem is largely preserved in the past forms as in *swing-swung*. Also in our data, past form of the verb *climb* was given as *clamb* for the past tense form like *lie-lay*; whereas, there was another example for the past tense form of *climb* as *clumb* which can be defined as novel verb.

a) *climb-clamb*

b) *climb-clumb*

Our data also presented samples that can be interpreted as having phonological similarity between the verb forms (a), on the other hand, there were samples of novel verbs that do not follow any phonological rule in forming past tense (b).

Two of the participants gave the past forms of *happen* as *happenen* which have no meaning and not presenting a rule either. The other **novel verb** examples are: *brush-brash*, *brosh*, *climb-clumb* and *deliver-dolever*. And only one sample for applying wrong suffix was seen in *delivers*, adding 3rd person singular -s morpheme with the verb *deliver*.

4.6.1.2 Irregular Past Tense Morpheme in a Given List of Verbs

As for the detailed analysis of the same list of verbs with irregular forms almost the same categories of errors were observed apart from the type of samples related with participants' applying the regular-ed form for the irregular forms of the verbs. The samples for the incorrect usage of irregular verbs in the given list were presented in Table 24.

Table 24. Samples of incorrect forms of irregular verbs

Irregular verbs corr %	Incorrect forms of irregular verbs				
	Regularization	Ortographic Analogy	Phonological Analogy	Novel verb	Wrongly suffixed
1-do 90	-	went want	-	-	-
2-become 88	becamed	begin	-	-	-
3-buy 66	buyed(3) buiied	boy by	Bay	-	-
4-swim 62	swimed(9) *swimmed	-	-	swom	-
5-get up 58	*get upped	got	-	gat up	-
6-write 58	writed(12)	-	-	wrate	-
7-be 54	-	is begin am-is-are	-	-	-
8-win 54	*winned	-	Wun	wan wen	-
9-run 48	runed(4) *runned	-	-	ron	-
10-fight 44	fighted(8)	-	-	foght faght	-
11-speak 44	speaked(6)	-	-	spook spake sapuk	speaks
12-leave 40	leaved(16)	lost loft	-	-	-
13-lose 32	losed(17)	last	-	loset	-
14-make 30	maked(10)	mad	-	-	-
15-grow 30	growed(7)	-	-	graw grive	-
16-hit 24	hited(4) *hitted	hot hat	-	-	-
17-send 22	sended(12)	sand	sond	-	-
18-read 18	readed(10)	road ride rode	-	-	-
19-think 12	thinked(10)	-	thank	-	-
20-teach 8	teached(24)	touch teeth	-	teac teacht	-

The data demonstrated that twelve irregular verbs having a low percentage of 48 and below-*run, fight, speak, leave, lose, make, grow, hit, send, read, think, teach*-were regularized by applying the regular past tense form -ed to the verb stem. According to Pinker (1998)" regular inflection applies freely in any circumstance in which memory fails because regular inflection is computed by a mental operation that does not need access to contents of memory, namely, a symbol-processing rule"(p.27). The percentage of irregularization seemed to be low, however, this does not mean that all these verbs were answered incorrectly because the participants gave no

answer to some of the verbs at all when they were not familiar with either the verb or the past form of it.

On the other hand, although some irregular verbs had a high percentage of correct responses, they were still regularized by some of the participants. For example, the verbs *swim* and *write* which have irregular forms were regularized with the regular suffix-ed as *swimed* by ten participants and *writed* by twelve participants even though they had the percentages of correct irregular forms of 62 and 58 respectively.

swim-*swimed*

write-*writed*

This regularization of irregular verbs can be explained by the rule-based structure of Turkish since adding the past tense morpheme *-di* (having eight allomorphs according to the preceding stem vowel and consonant: *-dı, -di, -du, -dü, -tı, -ti, -tu, -tü*) at the end of verbs denotes past form of them in their first language.

Participants having such a rule based first language-Turkish- may apply the same rules for their second language-English-despite the two mechanisms presented in that language: rule-governed (regular verbs) and rote-learned (irregular forms).

In the regularized forms of the irregular verbs * *get up, win, run*, the rule of doubling consonants (when a word ends in vowel + consonant, we double the consonant at the end: *stop-stopped, plan-planned*) were applied as in the examples

get up- *get upped*

win- *winned*

run- *runned*

Two of the participants applied the same rule for the verbs *swim* and *hit* as in the verbs presented below. This may be result form overgeneralization the rule of doubling consonant for these verbs.

swim- *swimmed*

hit-*hitted*

Another example for the **overgeneralization** of the rule was observed in the past form of the irregular verb *become*. The participant first changed the verb correctly as *became* and then added regular suffix-d at the end of irregular form of the verb.

become-*becamed*

Participants made **analogy** within the verbs by resembling verbs with another verb or word based on orthographic or phonological features such as

do-*went, want*

become-*begin*

buy-*boy, by*

be-*is, begin, am, is, are*

leave-*lost, loft*

lose-*last*

make-*mad*

hit-*hot, hat*

send-*sand*

read-*road, ride, rode*

teach-*touch, teeth*

Likewise in regular forms, in the incorrect usage of irregular verbs participants produced phonologically similar words for the irregular past tense forms. Participants applied the rules of **phonology** for the following verbs:

buy-*bay* similar to the change in lie-*lay*

think-*thank* similar to the change in sing-*sang*

win-*wun* similar to the change in stick-*stuck*

send-*sond* similar to the change in sell-*sold*

There were also samples for the **novel verbs** which have no meaning and do not have any rule in form such as

get up-*gat up*

win-*wen*

run-*ron*

speak-*spook*

lose-*lose*

grow-*grive*

Similarly with the analysis of regular verbs, there is only one sample of applying wrong suffix was observed with the same type of adding 3rd person singular -s to the verb stem *speak-speaks*.

4.6.2 Past Tense Morpheme in a Given List of Novel Verb

Whether the students really formed a mechanism discriminating rules for regular and irregular or they only memorized the list of verbs given, a list of novel verbs was presented to thirty eight participants and they were asked to indicate on how these novel verbs change in past

tense whether the verbs had regular or irregular forms. The list consisted of thirty novel verbs half of which were originally regular and the other half irregular. According to Pinker (1993), past marking is independent of phonology, which determines the possible sound sequences and also independent of meaning. He further states that similarity of meaning does not imply similarity of form for example *hit-strike* and *slap* have the same meaning but different past forms: *hit-hit*, *strike-struck*, *slap-slapped*. However, he does not eliminate the possibility of any semantic influence on the inflection process (1993). On the other hand, for Ramscar (2002) existence of phonologically similar verbs that take different patterns of inflection provides a good area in which to explore the idea that semantic similarity may play a part in inflection in relation with phonological similarity.

The participants produced verbs both showing phonological similarities between regular and irregular forms of the verbs and novel verbs which do not follow any phonological rule. In our study, we also investigated whether semantic similarity played a part in inflection besides phonological similarity by getting participants to inflect a novel verb that is phonologically similar to a regular or an irregular verb.

The verbs in the list were formed by changing the first sound of regular and irregular verbs and most of the consonants at the beginning of the verbs were formed regardless of phonological rules: whether place of articulation or manner of articulation for example:

play-tlay [p] is a voiceless bilabial stop, [t] is a voiceless alveolar stop

sleep-fleep [s] is a voiceless alveolar fricative, [f] is a voiceless labio-dental fricative

bring-tring [b] is a voiced bilabial stop, [t] is a voiceless alveolar stop

The novel verbs were analysed according to being originally regular and originally irregular and they were categorised in terms of regularization, irregularization, no change in the past form of the verb and no answer for the past form. The results of novel verbs in terms of originally regular verbs were presented in the Table 25.

Table 25. Results of novel verb analysis in terms of originally regular verbs

Originally regular verbs	Regularization		Irregularization		No change		No answer	
	N	%	N	%	N	%	N	%
1-betire- <i>retire</i>	36	94.7	1	2.6	-	-	1	2.6
2-rehave- <i>behave</i>	34	89.4	3	7.8	-	-	1	2.6
3-verve- <i>serve</i>	34	89.4	2	5.2	-	-	2	5.2
4-deturn- <i>return</i>	31	81.5	4	10.5	1	2.6	2	5.2
5-shry- <i>cry</i>	31	81.5	2	2.6	3	7.8	2	5.2
6-treate- <i>create</i>	30	78.9	5	13.1	-	-	3	7.8
7-falk- <i>talk</i>	28	73.6	8	21	-	-	2	5.2
8-satch- <i>watch</i>	28	73.6	8	21	1	2.6	1	2.6
9-tecord- <i>record</i>	27	71	4	10.5	4	10.5	3	7.8
10-pie- <i>die</i>	26	68.4	5	13.1	5	13.1	2	5.2
11-tlay- <i>play</i>	26	68.4	9	23.6	2	2.6	1	2.6
12-flean- <i>clean</i>	25	65.7	11	28.9	-	-	2	5.2
13-liss- <i>kiss</i>	23	60.5	9	23.6	4	10.5	2	5.2
14-nook- <i>look</i>	14	36.8	17	44.7	4	10.5	3	7.8
15-sall- <i>call</i>	10	26.3	21	55.2	4	10.5	3	7.8

Thirty eight participants produced regular and irregular forms of the novel verbs which are originally regular. Originally regular verbs were regularized by the participant with high percentages (above 60%), whereas, there were two novel verbs-*nook* and *sall*-which had lower percentages than the others (36% and 26% respectively). Similar to verb list task given previously, participants regularized with high percentages. As Pinker (1998) proposes that almost all verbs in English are regular, and the class is completely predictable, the suffix *d* is attached to the verb stem. Moreover, experience with one inflected form and making association with a similar verb semantically might influence the productive inflectional choice of the past form of the verbs. Therefore, participants used regular forms for the novel verbs which were originally regular with a high percentage.

While the participants were changing the novel verbs into past forms, they also produced incorrect forms. The analysis of the incorrect forms of novel verbs originally regular was presented in Table 26.

Table 26. Samples of incorrect forms of novel verbs originally regular

Originally regular verbs	Incorrect forms of novel verbs originally regular			
	Spelling errors	Ortographic Analogy	Phonological Analogy	Unclear words
1-betire- <i>retire</i>	-	-	-	-
2-rehave- <i>behave</i>	-	-	-	rehaven
3-verve- <i>serve</i>	-	-	-	verv
4-deturn- <i>return</i>	-	-	-	detrn
5-shry- <i>cry</i>	shryed	-	-	-
6-treate- <i>create</i>	treatied	-	-	-
7-falk- <i>talk</i>	-	-	-	fook
8-satch- <i>watch</i>	-	-	-	saught
9-tecord- <i>record</i>	tecored	-	-	-
10-pie- <i>die</i>	-	pay	pay	pid
11-tlay- <i>play</i>	tlaid	-	-	-
12-flean- <i>clean</i>	-	-	feant	-
13-liss- <i>kiss</i>	-	liss, less	-	-
14-nook- <i>look</i>	-	-	noke	-
15-sall- <i>call</i>	-	salt	-	saly

Nevertheless, participants did some spelling errors in their productions. For example, one of the participants did not drop y at the end of the novel verb *shry* although there is a consonant just before y like the change in the verb *study-studied* and he produced as

shry-shryed

In the production of *tlay*, we expect a form similar to *play-played*. However, another participant dropped y at the end of the novel verb *tlay* and added -id at the end of the verb although there is a vowel before y:

tlay-tlaid

Other spelling errors were *tecord-tecored*; *treate-treatied*.

As for the analogy category, participants used *pay* for the novel verb *pie*, two participants produced *list* and *less* for the novel verb *liss*. And one of the participant utilized *salt* for the novel verb *sall*.

Another category presented phonological similarity between the novel verbs originally regular and their irregular past forms. One of the participant produced *pay* for the novel verb *pie* which can also be explained from the point of view of analogy.

pie-pay as similar to the change in *lie-lay*

The other examples for the phonological similarity between the verbs were as follows

flean-feant similar to the change in *mean-ment*

nook-noke similar to the change in *choose-chose*

Participants also created different novel forms for the verbs given in the list such as *satch-saught*

rehave-*rehaven*

sall-*saly*

deturn-*detrn*

verve-*verv*

Another analysis was carried out for the novel verbs which were originally irregular.

The results of the analysis in terms of regularization and irregularization of originally irregular verbs and also no change and no answer were presented in Table 27.

Table 27. The results of the analysis of novel verbs originally irregular

Originally irregular verbs	Regularization		Irregularization		No change		No answer	
	N	%	N	%	N	%	N	%
1-set- <i>let</i>	2	5.2	35	92.1	-	-	1	2.6
2-reet- <i>meet</i>	9	23.6	34	89.4	2	5.2	1	2.6
3-fleep- <i>sleep</i>	9	23.6	28	73.6	-	-	1	2.6
4-chut- <i>shut</i>	9	23.6	28	73.6	-	-	3	7.8
5-tring- <i>bring</i>	9	23.6	26	68.4	2	5.2	1	2.6
6-beed- <i>feed</i>	5	13.1	24	63.1	6	15.7	3	7.8
7-nell- <i>tell</i>	4	10.5	23	60.5	8	21	3	7.8
8-cuild- <i>build</i>	9	23.6	20	52.6	4	10.5	5	13.1
9-lind- <i>find</i>	15	39.4	20	52.6	2	5.2	1	2.6
10-kight- <i>fight</i>	19	50	16	42.1	1	2.6	2	5.2
11-chrow- <i>throw</i>	20	52.6	15	39.4	1	2.6	2	5.2
12-crive- <i>drive</i>	22	57.8	13	34.2	1	2.6	2	5.2
13- lean- <i>mean</i>	22	57.8	12	31.5	2	5.2	2	5.2
14-seach- <i>teach</i>	25	65.7	9	23.6	-	-	4	10.5
15-sose- <i>lose</i>	28	73.6	6	15.7	-	-	4	10.5

Unlike the verb list given previously, the percentages of correct irregularization were high in the novel verbs analysis. Nine novel verbs originally irregular out of fifteen had the percentage higher than 50 and most of the participants produced the correct form of these novel verbs. This may show that participants' inflection of a novel verb can be influenced by previously witnessed inflections. As Ramsar(2002) proposes semantic similarity could affect the inflection of the past tenses of novel English verbs when phonological similarity constraints were satisfied. If people encounter a novel verb form that is phonologically close to two different existing verbs but semantically close to only one of them, then they are likely to inflect the novel verb in the same way as the semantically similar verb. In our data, participants tend to regularize the novel verbs which were originally irregular when they did not trace a semantic feature and they were not familiar with that verb. According to Ramsar(2003) this suggests that if no semantic similarity holds between a novel and an existing irregular, and there is positive semantic similarity between that novel and an existing regular, then the novel will be inflected regularly.

The number of participants who produced the correct forms of the novel verbs which were originally irregular and their percentages were listed in the following table. The percentages demonstrated that most of the novel verbs were familiarized with their original forms, whereas, only one verb was not produced by the participants (*seach-saught*).

Table 28. Correct irregular forms of the novel verbs

Correct forms of irregular verbs	N	%
1-set-set	27	71
2-reet-ret	21	55.2
3-cuuld-cuilt	16	42.1
4-chut-chut	15	39.4
5-beed-bed	14	36.8
6-fleep-flept	12	31.2
7-kight-kought	11	28.9
8-chrow-chrew	10	26.3
9-nell-nold	8	21
10-crive-crove	7	18.4
11-lean-leant	4	10.5
12-lind-lound	3	7.8
13-tring-trought	3	7.8
14-sose-sost	2	5.2
15-seach-saught	-	-

A detailed analysis of the correct and incorrect forms of the novel verbs which were originally irregular was done and presented in Table 29.

Table 29. Samples of incorrect forms of novel verbs originally irregular

Originally irregular verbs	Incorrect forms of novel verbs originally irregular		
	Ortographic Analogy	Phonological Analogy	Unclear words
1-set- <i>let</i>	-	-	-
2-reet- <i>meet</i>	-	-	-
3-fleep- <i>sleep</i>	-	-	floap
4-chut- <i>shut</i>	-	-	chught
5-tring- <i>bring</i>	tried	trung, trang	troke
6-beed- <i>feed</i>	-	-	bod
7-nell- <i>tell</i>	-	-	nill
8-cuuld- <i>build</i>	could	-	cult
9-lind- <i>find</i>	-	-	-
10-kight- <i>fight</i>	-	-	knight
11-chrow- <i>throw</i>	-	-	-
12-crive- <i>drive</i>	-	-	-
13-lean- <i>mean</i>	-	lent	-
14-seach- <i>teach</i>	-	-	-
15-sose- <i>lose</i>	-	-	sosy

In the analysis of the novel verbs originally irregular, it was observed that all of the participants tried to regularize the irregular verbs such as *fleep-fleaped*, *tring-tringed*, *vight-vighted*

although they had irregular forms as *fleep-flept*, *tring-trought*, *vight-vought* at least once. Among the regularized forms of the irregular verbs one spelling error was observed for the regular form of *fleep* as *fleepped* by doubling the consonant *p* at the end of the verb stem.

As for the errors we observe in the production past forms of irregular novel verbs, two examples were seen in the analysis of the novel verbs originally irregular in terms of analogy. One of the participants produced *tried* for the irregular form of the irregular novel verb *tring*. The participant made resemblance with the verb *try* and formed *tried* for the past form of it. Another example was observed for the novel verb *cuild* as it was mixed with the modal verb *could*.

As for the phonological analogy, two of the participants produced examples such as *tring-trung*, *trang* although another three participant used the correct form of *tring* as *trought*. One of the participants utilized *lent* for the originally irregular verb *lean*.

tring-trung similar to the change in *fling-flung*

tring-trang similar to the change in *ring-rang*

lean-lent similar to the change in *mean-meant*

Participants produced different forms of novel verbs which did not demonstrate any phonological or semantic relation such as

tring-troke

beed-bod

fleep-floap

nell-nill

sose-sosy

kight-knight

chut-chught

In order to explore the idea of how the verbs are inflected in past tense, the data in our study was collected from a list of regular and irregular verbs and also a novel verb list consisted of originally regular and irregular verbs. According to the results of the tasks we applied, it was observed that both phonological similarity and semantic similarity played a part in forming regular or irregular past forms of the verbs. However, there were examples of incorrect forms of both regular and irregular verbs which do not follow any phonological or semantic rule. For that reason, it is difficult to propose a statement of a rule for the production of the past tense inflection.

The past tense inflectional system may be affected from the participants native language-Turkish-which have a rule based structure in past tense inflection. The phonological similarities observed in producing the past forms of regular and irregular verbs may show a transfer from Turkish since the past tense suffix /dI/ should follow two phonological rules in order to inflect past

tense: final devoicing and vowel harmony. In the final devoicing rule, if the verb ends with voiceless consonant, voiceless suffix should follow the verb stem (git-ti) or if the verb ends with voiced consonant, voiced suffix should be added to the verb (gel-di). In the vowel harmony rule, the suffix should follow the rules for both rounding harmony and backness harmony (gel-di; kal-di). Applying these phonological rules in their native language, the participants may follow the same rules in the production of past tense inflection in English. However, when all the errors were analysed in detail, it was observed that they were not only explained by the effect of first language. In this respect, it is difficult to propose that the reasons for the errors of participants who have a totally rule governed language system result from direct transfer.

4.6.3 Past Tense Morpheme in Written and Spoken Data

In the previous data, participants were asked to fill the list of verbs with regular and irregular forms of the verbs. They were only wanted to write the correct form of past tense morphemes. The verb list data was collected right after the participants learnt the rules of past tense in their lessons. After a short period of time, participants were wanted to write a paragraph describing their last week and weekend. Participants were able to produce their own sentences by writing about their daily life. The number of the participants was thirty. After collecting the data, the verbs they used in terms of regular and irregular forms and the incorrect usage of these verbs were analysed.

Table 30. Regular and irregular verbs used in the paragraphs of participants

Subjects	Regular verbs	Irregular verbs	Incorrect	Total
1	4	15	-	19
2	6	31	1 (singd)	38
3	15	17	-	32
4	5	12	-	17
5	8	21	1 (taked)	30
6	9	17	-	26
7	17	43	-	60
8	7	11	1(sleepd)	19
9	6	10	-	16
10	12	22	-	34
11	7	9	-	16
12	8	33	-	41
13	5	17	-	22
14	5	29	-	34
15	6	6	-	12
16	6	11	-	17
17	5	11	-	16
18	4	6	-	10
19	3	5	-	8
20	5	3	2(rided, readed)	10
21	3	8	-	11
22	5	9	-	14
23	3	10	1(sleepd)	14
24	8	10	-	18
25	4	9	1(readed)	14
26	2	2	1(readed)	5
27	6	5	-	11
28	7	3	-	10
29	8	6	-	14
30	4	5	-	9
TOTAL	193	396	8	597

According to table 30, it was observed that participants involved in written data produced both regular and irregular verbs in their paragraphs when writing about their last week and weekend. Participants used 193 regular verbs in their paragraphs, on the other hand, they produced 396 irregular verbs. The number of irregular verb usage was higher than the regular ones. This may be resulting from frequency of the irregular verbs that participants used in their writings. As Pinker (1998) states “irregular forms (but not regular forms) have to be memorized repeatedly, generation after generation, to survive in a language, and that the commonly heard forms are the easiest to memorize”(p.10). In contrast to the regulars, irregular verbs define a closed class of 180 verbs in English (Pinker, 1998) and irregulars are the most common verbs that the participants first learn.

When we investigate errors participants commit, we observed a few incorrect forms of verbs for the following irregular verbs: *sing-singed*; *take-taked*; *sleep-sleeped*; *ride-rided*; *read-readed*. Participants regularized the irregular verbs in their writings. Although the number is low, we still observe that participants tend to overgeneralize.

Although the previous results from the analysis of the past tense inflection in given lists showed a higher percentage in the regularization of verbs regardless of being regular or irregular, the results from the paragraph writing did not demonstrate the same pattern in

regular and irregular verbs. This may be due to applying different tasks to participants in which their performance would be affected. In paragraph writing participants produced the verbs they were familiar with while writing about their daily activities in past tense. On the other hand, in the other tasks related with past tense they were asked to fill in the list of verbs. The detailed analysis of the verbs that participants used was done to examine the nature of the verbs produced and to see if frequent verbs appeared mostly in their writings. The analysis was presented in the following table.

Table 31. Regular and irregular verbs used in paragraph writing

Regular verbs	Usage in the task	Irregular verbs	Usage in the task
1-watch	30	1-go	112
2-play	20	2-be	60
3-finish	18	3-have	48
4-visit	16	4-got up	37
5-start	15	5-do	36
6-study	12	6-sleep	28
7-arrive	10	7-read	11
8-relax	9	8-leave	10
9-work	7	9-come	9
10-enjoy	6	10-eat	7
11-walk	5	11-take	5
12-brush	4	12-meet	4
13-travel	4	13-speak	4
14-stay	4	14-buy	3
15-prepare	3	15-ride	3
16-wash	3	16-write	2
17-call	3	17-see	2
18-help	3	18-win	2
19-live	3	19-spend	1
20-kiss	3	20-send	1
21-return	2	21-fall	1
22-dance	2	22-sat	1
23-invite	2	Total	396
24-deliver	2		
25-talk	2		
26-miss	2		
27-like	1		
28-love	1		
Total	193		

Participants used both regular and irregular verbs in their writings and the usage of irregular verbs were more frequent than the regular ones. “Most surviving irregular verbs are used at high frequencies and the thirteen most frequent verbs in English –*be, have, do, say, make, go, take, come, see, get, know, give, find*–are all irregular” (Pinker, 1993, p. 476). The data also showed the same frequencies with the literature in which participants used the most frequent irregular verbs such as *go, be, have, get (up), do, etc.*

In order to support findings of the written data, we also had interviews with the same participants to see whether they were able to use past forms of verbs correctly. In the analysis of the spoken task according to the past tense usage, it was observed that there are both the regular and irregular verb forms of the past tense. Table 32 demonstrates the number of past tense verbs usage with regular and irregular forms.

Table 32. Regular and irregular verbs used in the spoken task

Subjects	Regular verbs	Irregular verbs	Incorrect	Total
1	-	9	-	9
2	2	14	-	16
3	1	1	-	2
4*	3	13	2 (founded, buyed)	18
5	1	7	-	8
6	-	3	-	3
7	-	3	-	3
8	-	5	-	5
9	-	4	-	4
10	8	4	-	12
11	1	2	-	3
12	6	6	-	12
13	4	18	-	22
14	3	7	-	10
TOTAL	29	96	2	127

Table 32 indicated the participants' past tense verb choice with regular and irregular forms and the total number for each participant's usage of verbs in the past tense. The total number for the regular verb forms is 29, on the other hand the total number for the irregular verb forms is 96. Each participant used the regular and irregular forms in their speech correctly, whereas the 4th student(*) used *founded* and *buyed* respectively applying the regular past tense form *-ed* to the verbs *find* and *buy* as seen in the following examples.

Ex37: Monica saw and she *founded* candles so she went out.

Ex38: She *buyed* a present then Monica went bed.

If the total number of the usage of both the regular and irregular forms of the verbs was taken into account, the usage of irregular forms (96) is higher than the usage of regular forms (29). Pinker (1999) points that frequency effects play role in the process of rote learned forms as irregular verbs, which means more frequent verbs, are processed faster than rarer forms. A detailed analysis of irregular verbs was done and the total number of these forms was given in table 33. According to the analysis, irregular "go" form was used more frequently than the other irregular verbs. The participants used these verbs in the descriptions of films, cities, and series of pictures. While they were presenting the series of pictures, they produce dynamic verbs such as *go*, *come*, *make*, etc. which are more frequent in reporting series of pictures.

Table 33. Regular and irregular verbs used in the spoken data

Regular verbs	Usage in the task	Irregular verbs	Usage in the task
die	3	go	30
sleep	3	be	22
clean	2	come	19
start	2	make	6
affect	2	buy	6
study	2	see	4
give	1	get	2
want	1	eat	1
like	1	learn	1
cook	1	speak	1
visit	1	take	1
say	1	find	1
look	1	wear	1
need	1	win	1
turn	1	Type=14	Token=96
invite	1		
decide	1		
lock	1		
cry	1		
watch	1		
travel	1		
Type=21	Token=29		

Furthermore, within these forms, only two incorrect usages of irregular past tense forms were observed while we were expecting overgeneralization for the usage of irregular forms as Turkish has a rule based structure (-di) in past tense [gel-di (come-PAST-3rd per)]. If L2 past tense were taken as a rule based structure by Turkish participants, they would produce more incorrect usage of irregular verb forms. In this respect, we may explain this situation by focusing on the language learning setting and the techniques and methods applied in language teaching in classroom. The general tendency in the language classrooms is to present new structures in the form of formulas and have the students memorize the words by repeating and writing them many times. As for presentation of the past tense, the regular and irregular forms are taught at different times, regular forms following irregular forms. For that reason, we have observed very few incorrect forms.

Although there weren't many incorrect uses of regular and irregular verbs in the past tense, the participants seemed to avoid using past tense in all sentences where past tense is appropriate. There were instances of agreement between the clauses within sentences. As O'Grady, Dobrovolsky and Aronoff (1997) state, while knowledge of a language's grammar allows the learners to make the distinction between grammatical and ungrammatical sentences, successful communication requires more than this by using the language in a way that is appropriate to the situation or context. In the samples, which lack agreement, the grammatical competence is available in the selection of both regular and irregular past tense forms, whereas, in search of performance, agreement problems within the sentence were

observed. Following examples are given for agreement problems in the spoken data. They used present and past form of the verbs in mixed form.

Ex 39: She **got** on the bus. She **went** shopping and **buy** vegetables..... She **went** to the shopping and **bought** a candle . Guests **come** to party, she **sleeps**.

Ex 40: She **is** Anna. Anna **prepare** for the birthday party. Very excited. She **went** to shopping. She **is** very tired. She **make** a cake. She **forget** candle. She **went** to shopping, she **take** candles, she **celebrate** for her birthday party. Her friends **came** with. A long time after she **was** sleeping.

In the analysis of the spoken data, there were samples of inconsistency in verb usage. In example 41, the participant started to describe the series of pictures with present tense and then continue with past tense in the description. In the other example, another participant started the description with past tense and then turned into present form of the verbs omitting the 3rd person singular-s.

Ex 41: First of all she **gets on** the bus, she **is** going to shopping and she **bought** vegetable and she **went** back the home and she **made** a cake and she **put** candle on the cake after her friends **came** to the her house and they **were** happy but she was sleeping.

Ex 42: The girl **went** shopping and **cleaned** the inside and make a cake and there **wasn't** any candles a so she **buy** the candles and she **put** on the cake after a lot of people come here and **start** the party. She **is** sleeping maybe tired.

The samples, which lack agreement, are analysed in detail to see whether the participants know the past form of the verbs that they avoid using and choose present form of these verbs. Examples 43 and 44 demonstrate that participants knew the past form of the verbs they used in their speech. They produced the past and present form of the verbs in the same context. Choosing the present form of the verb does not mean that the students do not know the equivalents of these verbs in past tense.

Ex 43: A woman we can say Şükran. Şükran went shopping. She bought new fruit and the other. She went shopping then she came to a house she **made** a cake for birthday. They eat after that her friends came her home and she **make** a party for birthday and she was very happy and they were drinking beer and wine. They **make** very happy time in birthday party and after that they went their home.

Ex 44: She **takes** a lot of food for the party so she bought..... she house very messy I think. She make cake for the birthday party but she **took**..... later she **come** back shop. She change candles. Friends **came** and then she saw and came later but when the party started she sleeping/asleep

In the detailed analysis of the spoken task one of the student used only past form of the verb *go*, whereas in the other sentences present form of the verbs were used. While the student was using the present forms, omission of 3rd per. sing.-s was observed.

Ex 45: She get on bus. She run very quickly. She **went** to shopping. She take a lot things. She make a cake. She mistake..... I can see egg in the picture. She **went** to shopping. She take a candle. I can see a cake, three candle. She **went** to party. She drink beer besides she talk with a man. In the other picture I can see four people. They are very happy. They pass enjoyable hours. Finally she is very tired.

Another participant used the verb *go* in present form while the other verbs used in the description were in past tense.

Ex 46: The day is ordinary, she **go** to the market for shopping then she is very tired because she *travelled* after that she *came* home and she *saw* the house isn't tidy so she *cleaned* the house after that she *made* a cake because this day is her birthday party then she see the candles and there isn't any candles and so she **go** to the market and she buy the candles then sheshe put the candles on the cake after that guest came her home then they buy a lot of gift for her then she is very happy and very tired this night and so sleep.

In the next chapter, the overall evaluation will be done considering the research questions and the theoretical background. Additionally, implications for English language teaching will also be presented with the suggestions for further studies.

CHAPTER V

CONCLUSION

5.0 Introduction

In this study, we tried to investigate the issue of second language (L2) verbal inflections in terms of how morphological knowledge is presented in the L2 grammar. Our focus was on learning and using past tense verbs, the three -s morphemes; namely, plural, possessive and third person, copula and auxiliary *be*. Since Turkish is an inflectionally rich language in which the past tense and plural morphology is totally rule-governed, we tried to put light on the issue whether the rule-governed system of Turkish morphology has a hindering effect on the acquisition of English in classroom setting.

5.1 Evaluation of Research Questions

In this section, evaluation of the research questions of our study regarding inflectional morphology of L2 in terms of three –s morphemes namely, third person singular, plural and possessive, copula and auxiliary *be* and the acquisition of past tense morpheme in L2 setting was done.

With regards to our research questions, we came up with the result that plural -s and third person singular -s were learned and used at different stages parallel to the developmental difference indicated in the literature. Omission of third person singular -s rates were higher than other incorrect samples which show that participants had difficulty in applying inflectional morpheme -s which does not exist in Turkish and they preferred uninflected forms.

In the acquisition of plural-s morpheme, it was observed that there may be a transfer from Turkish (L1) as the participants did not use plural-s with quantifiers which are ungrammatical in Turkish. Moreover, plural-s was not over-generalized, although there is only one sample of overgeneralization.

As for the possessive-s morpheme, participants did only a few errors resulted from omission of -s. This may be explained by the fact that in Turkish possessive marker is placed in the same order in English and also there is a period of omission of possessive marker in Turkish in which the children tend to omit possessive marker in their sentences.

Although inflections are problematic for L2 learners as stated in the literature, the use of *be* copula and auxiliary *be* forms do not have such problems. Adult L2 learner of English produces errors in the -s inflection; on the other hand, he/she produces many *be* forms. Also Turkish students learning English master copula *be* earlier because they assume the existence of a verb is necessary due to the teachers' emphasis on the use of these items.

Words and Rules model of morphology (Pinker, 1998) distinguishes rote-learning of irregular morphological forms from rule-governed learning of regular morphology. According to him, rule-governing, characteristics of regular morphology, is not associated with specific lexical items, but it is generalised to all items of a class. So even new nouns and verbs can be pluralized or changed into past tense by regular rules. In contrast, irregular morphology is learned as individual items as rote-learned.

In order to explore the idea of how the verbs are inflected in past tense, the data in our study was collected from a list of regular and irregular verbs and also a novel verb list consisted of originally regular and irregular verbs. According to the results of the past tense verbs, it was observed that both phonological similarity and semantic similarity played a part in forming regular or irregular past forms of the verbs. However, there were examples of incorrect forms of both regular and irregular verbs which do not follow any phonological or semantic rule. For that reason, it is difficult to propose a statement of a rule for the production of the past tense inflection.

The analysis of the data shows that participants of this study use both regular and irregular inflections. As they try to form a system in their mind, they tend to overgeneralize the rule "add -ed to the verb stem". However, they also learn past forms of irregular verbs in spite of errors they make. The reason why they overgeneralize may be the effect of their mother tongue-Turkish- which has a rule based structure in past tense inflection. The phonological similarities observed in producing the past forms of regular and irregular verbs may show a transfer from Turkish since the past tense suffix /dI/ should follow two phonological rules in order to inflect past tense: final devoicing and vowel harmony. Secondly, similar to children acquiring English, they may be overgeneralizing rules as they are able to apply rules to the verb stem and produce novel and rule-governed forms. However, when all the errors were analysed in detail, it was observed that they were not only explained by the effect of first language as there were errors apart from phonological and semantic similarities. In this respect, it is difficult to propose that the reasons for the errors of participants who have a totally rule governed language system result from direct transfer.

The data revealed that participants regularized the verbs more often than irregular forms. In this respect, we may explain this situation by focusing on the language learning setting and the techniques and methods applied in language teaching in classrooms. The

general tendency in the language classrooms is to present new structures in the form of formulas and have the students memorize the words by repeating and writing them many times. As for presentation of the past tense, the regular and irregular forms are taught at different times, regular forms following irregular forms. For that reason, we have observed very few incorrect forms. Therefore, both the rule-governed system of Turkish morphology and the methodology in teaching may have an effect on the acquisition of English in classroom setting.

5.2 Implications for English Language Teaching

Research on second language acquisition has focused on the complexity and ambiguity for the learners. As Ellis (2004) remarks, “Second language acquisition is a complex, multifaceted phenomenon and it is not surprising that it has come to mean different things to different people.”(in Adamson, p.616) In this study, we aim to investigate the morphological development of L2 learners who have a totally rule governed system. The participants in our study are on the way to learn how to apply the rules in inflectional morphology of English. However, they still lag in English structure and they committed errors in the development of morphological knowledge. In order to eliminate the errors, teachers may focus on the differences between two languages. Using more authentic materials in the classrooms and bringing activities in the classroom setting related with the production of the learners may influence their learning in a productive way. Students should have the opportunity to practice the language in classroom setting.

In order to assist teachers to develop a systematic, coherent, and relevant classroom setting, Kumaravadivelu(in Adamson, 2004) proposes ten macro-strategies for teachers to employ. Although they might not be applicable in all contexts, they may offer new methodological insights and help teachers in the language education classrooms. These are:

- 1 *Maximize learning opportunities* by taking account of the local context and specific needs, interests, and abilities of all the learners.
- 2 *Facilitate negotiated interaction* by actively involving all learners in classroom discourse.
- 3 *Minimize perceptual mismatches* by closing the gap between the implemented and the experienced curriculum.
- 4 *Activate intuitive heuristics* by encouraging learners to make educated guesses in inferring grammatical rules.

5 *Foster language awareness* by raising the learners' sensitivity to language and its role in human life.

6 *Contextualize linguistic input* in order to provide essential pragmatic clues to meaning.

7 *Integrate language skills* as they are interrelated and mutually reinforcing.

8 *Promote learner autonomy* by helping learners to understand and utilize effective learning strategies.

9 *Raise cultural consciousness* by valuing the contributions of learners as cultural informants.

10 *Ensure social relevance* by making learners aware of the social, political, economic, and educational environment in which language learning takes place.

All in all, using different methods and creating solutions to the problems that students faced while learning a language different from their mother tongue may shape the classroom learning efficiently and affect the students' positively.

5.3 Suggestions for Further Studies

This study dealt with the presentation of the second language (L2) verbal inflections namely past tense, three -s morphemes: plural, possessive, 3rd person singular, copula and auxiliary *be* by the elementary level university students learning English in classroom setting. It is difficult to make any concrete generalization due to the errors of the participants in this study. In order to see the development of L2 morphological system in classroom setting, the same students may be observed in different times with different tasks. Moreover, it might be worthwhile to investigate different participants with different levels to see if they develop a morphological knowledge in second language.

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