Exploring Patterns of Language Use in Turkish-English Bilinguals

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Abstract

The present study aims to investigate the possible cross linguistic influence in Turkish-English bilingual children in the UK and aims to tackle the question of whether the existence, or lack thereof, cross linguistic influence would explain the bilinguals' languages development. Previous research (e.g. Yip and Matthews, 2000; Hulk and Müller, 2000; van Heuven, Conklin, Corderre, Guo and Dijkstra, 2011) has indicated that studies comparing different languages with different populations are necessary in the study of bilingual language development. This present study asked whether bilingual and monolingual comparisons could be made according to the participants' language proficiencies, according to the verbs they used, and whether cross linguistic influence was apparent in the non-canonical word orders in Turkish. The comparisons were done between seven Turkish-English bilingual primary school children (aged 8;1-10;1) from the UK, and seven Turkish monolingual primary school children (9;5-10;5) from Turkey. The participants were asked to narrate the picture story *"Frog, Where Are You?"* (Mayer, 1969), and according to the coding from the transcribed data, lexical frequencies and word order comparisons were carried out. Frequency calculation and word order comparisons suggested that there was no statistical difference and that the bilinguals' language development was similar to that of their monolingual peers; implying that the bilinguals' Turkish developed autonomous to their English.

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List of Tables and Figures

List of Abbreviations

1/2/3 PP ……. First/Second/Third Person Plural

1/2/3 PS ……. First/Second/Third Person Singular

BFLA …….. Bilingual First Language Acquisition

BL …….. Bilingual

DfE ……. Department for Education

DfES ……Department for Educational Standards

EAL ……. English as an Additional Language

GJT ……. Grammaticality Judgement Task

HLQ …… Home Language Questionnaire

L1 …… First Language

L2 …….. Second Language

LD …….. Lexical Diversity

ML …….. Monolingual

MLU …….. Mean Length of Utterance

OVS …….. Object Verb Subject

OSVO …… Object Subject Verb Object

SC …….. Sub Clause

SOV …… Subject Object Verb

SVO …… Subject Verb Object

TTR …… Type-Token Ratio

Chapter 1

Introduction

1.1 Overview and Motivations of Study

Bilingual children who grow up with two languages in a community where bilingualism is supported show different patterns (such as word order differences) of language use compared to monolinguals of the languages. These differences are mostly attributed to cross linguistic influence, which is when the first language (L1) influences the second language (L2) (Schmitt, 2010). For language and community influences, Oriyama (2011) states that even though children who receive support for their L1 outside of school, the language of the school and wider society will have an effect (*i.e.* sociocultural setting, local community, and contact with monolinguals). This leads to the premise that when studying bilingual children's language patterns, even though the bilingual children may have additional support for their L1, the language of education and wider society will influence their L1.

In languages such as German and Dutch, or Dutch and English, where there is overlap between language structures, the similarity can lead to further cross linguistic influence, especially at the lexical (word) level (van Heuven, Conklin, Corderre, Guo and Dijkstra, 2011). While van Heuven *et al.* (2011) compared language influences across three groups of languages according to their different scripts (orthography of English, Chinese, and Arabic), language overlap can also be at the structural level (word orders) even if scripts are the same (e.g. English and Somali, Russian and Mongolian). The cross linguistic influence that can be examined in languages with same orthography but different word order can show variation according to the subject, verb and object positions. The variation of the word orders can be due to the internal competition between the languages spoken by the bilingual (O'Shannessy and Meakins, 2012). According to this word order variation, languages are grouped into three major types SVO (subject, verb, object), VSO (verb, subject, object), and SOV (subject, object, verb) (Erguvanli, 1984). Turkish, being an inflectional (agglutinating) language where morphemes (smallest grammatical units of

language) can be added to words, gives the language word order flexibility. This allows six different word orders for Turkish (Slobin and Bever, 1982). Whereas English, has a strict word order and is not inflectional, thus allowing less flexibility in the SVO word order (Candan, Kuntay, Yeh, Cheung, Wagner and Naigles, 2012).

Considering the importance of studying the connection between two different languages with different characteristics and that research has stressed the need for further investigation of different language pairs (Hulk and Müller, 2000, O'Shannessy and Meakins, 2012). In studying the possible cross linguistic influence between Turkish and English, studies have investigated influence at the phonological (Oktay and Aktan, 2002), and at the syntactic (Candan *et al.* 2012, Haznedar, 2010) levels. While these studies focus on Turkish and English, the contexts of the research differ. The focus of Oktay and Aktan (2002) is on the phonological awareness of Turkish monolinguals in Turkey and Turkish-English bilinguals in the US, with participants range from 5;4 year old to 7;6 year olds. Whereas Candan *et al.* (2012) also focus on monolinguals in Turkey and the US, their participants are aged between 1-3 years old. Finally, Haznedar (2010) investigates the use of subject use in syntax and studies a Turkish-English bilingual in Turkey and a Turkish monolingual (both aged approximately 2;0 to 4;3 years old). As contexts and learning environments may influence participants and the language they use (Oriyama, 2011), studies in different contexts with different populations could show variance in findings. The motivations for this study stem from the need for research in cross linguistic influence of Turkish-English bilingual children in different populations.

As cross linguistic influence is an expected effect that is seen in the bilingual children's language development, studies across languages and different language pairs, in different contexts and communities would give further insight into cross linguistic influence at the word order level. One aspect of this study aims to focus on the word order patterns of bilingual children, examining the possible syntactic cross linguistic influence according to the narrative story telling of Turkish-English bilingual primary school children in the UK, who were between 8-10 years of age. The bilinguals' narratives are compared for the

difference between the utterances they have produced and the data collected from their monolingual Turkish peers, living and studying in Turkey. This comparison is carried out in order to comprehend whether the structures produced by the bilinguals can be explained as a natural consequence of their language development or as a consequence of cross linguistic influence.

Investigations of bilingual language development also show links between grammatical abilities of bilinguals and their lexical (vocabulary) development, stating that there is a strong association and interdependence between grammar and lexical diversity (number of different words in a text) (Simon-Cereijido and Gutierrez-Clellen, 2009). Additionally, oral proficiency is also stated to be a predictor of later reading skills (Roth, Speece and Cooper, 2002). As this study focuses on the oral language production of the Turkish of bilinguals, another aspect of their language that is analysed is the lexical diversity of verbs in Turkish. A comparison with the bilinguals' and the monolinguals' verbs in Turkish was carried out, which additionally gives us an understanding of the proficiencies of the two groups.

The theoretical findings of this study would aid in the understanding of language development of bilingual children when aspects of their language is compared to monolinguals. This would provide additional evidence for the way in which language learners in a particular population use and develop their language. As for practical implications, since this study focuses on bilingual learners in the UK, suggestions for emphasis on their existing language support can be proposed.

1.2 Outline of Dissertation

Chapter two will focus on terms and studies in the literature relating to the comparative study of bilinguals, bilingual language use, and systems in patterns of language use.

The third chapter explains the structure of the research, research questions, methods and materials that were used, as well as giving information about the participants.

The fourth chapter presents the results describing both quantitative and qualitative data.

The fifth chapter includes the discussion of both types of data and how this relates to the previous research.

The final chapter presents the conclusions of the study, where a general overview and summary of the study will be provided, followed by pedagogical implications, limitations and implications for further research.

Chapter 2

Literature Review

2.1 Bilingual Development

In the case of bilingual development there are different views as to who can be considered a bilingual, and of what bilingual development comprises. Bilingual child language acquisition encompasses different types of bilinguals and also different developmental classifications. The classifications of bilingual development are *simultaneous bilingualism*, which is when two languages are acquired at the same time, and *sequential bilingualism*, which is when one language is acquired after the other (Myers-Scotton, 2002). For Simultaneous Bilingualism, a far-reaching definition of a bilingual is given by Romaine (1995, 183-5) (seen in Table 2.1), in which different bilingual contexts are described. According to Romaine (1995) there are six types of bilinguals that have different features depending on the contexts in which the languages are acquired. These types of bilingualism illustrate the importance of both home language and community language, and how these can influence the language development process.

An issue that Murphy (2014) addresses in the differentiation between simultaneous and sequential bilingualism, a differentiation not apparent in Romaine's (1995) definitions, is when the acquisition of a language stops being simultaneous and starts being sequential. Murphy (2014) further explains this as being based on the characterisation of second language acquisition occurring after the first language has developed. That is; if the first language still has not fully developed and a second language is learned, then would this constitute as simultaneous bilingualism. A partial resolution is given to this issue, in that the term Bilingual First Language Acquisition (BFLA) (De Houwer, 1990, 2009) is used for young children developing a language that has been spoken to them since birth until the age of two. For example, if parents start speaking two different languages from the moment the child is born, this would fit De Houwer's definition of simultaneous bilingual. However, as precise age effects are not clear-cut, as Deuchar and Quay (2000) use bilingual acquisition

to refer to language exposure starting from birth or during the first year of life. Therefore early sequential bilingual development could still be considered simultaneous bilingual development in the first or second year of life. Furthermore, Genesee and Nicoladis (2006) limit simultaneous acquisition between birth and four years of age.

Table 2.1. Romaine's (1995) child bilingual acquisition types

Type of Bilingual Acquisition and Features
1 *One Parent-One Language* • The parents have different native languages and one of the parent's languages is that of the community's. Each parent speaks a native language to the child from birth.
2 *Non-Dominant Home Language/One Language-One Environment* • The parents have different native languages and one of the parent's languages is that of the community's. Both parents speak the non-dominant language at home and the child is exposed to the dominant language outside of the home.
3 *Non-Dominant Home Language Without Community Support* • The parents have the same native language, which is the non-dominant language of the community, and they speak the same native language to the child.
4 *Double Non-Dominant Home Language Without Community Support* • The parents have different native languages and both of the parent's languages are non-dominant languages of the community. Each parent speaks a native language to the child from birth.
5 *Non-Native Parents*

• The parents have the same native language, which is the dominant language of the community, but one of the parents speaks to the child in a non-native language.
6 *Mixed Languages* • While both parents are bilingual, the community may be bilingual too and code-switching and mixing can be seen while using the language with the child.

Yet, the distinctions made to define who a bilingual is do not address the role of production in bilingual development, as they only mention exposure to language and age of initial exposure and not necessarily the language skills possessed by the bilingual. As proficiencies in bilingualism can vary, bilinguals can show productive (writing and speaking skills) and/or receptive (reading and listening skills) language skills (Döpke, 1992) and different skills may be of different proficiencies in the languages that the bilingual has.

The importance of the differentiation between definitions of bilinguals is that this establishes how context dependent bilingual language development is, and that there is not solely one way of defining a bilingual. The native language of the parents, community, upbringing, and initial exposure to the language are all variables that make bilingual development difficult to generalise and fit into one explanation. Therefore, in studying bilinguals, factors that may influence the language of the bilingual should be kept in mind.

2.1.1 Bilingualism and English as an Additional Language (EAL)

In the later development of bilingualism, where a child or adult acquires a second language after acquiring the first language (sequential bilingualism), the term of second language acquisition (SLA, or L2 acquisition) comes into play (Baker, 2006). SLA is more directly concerned with later language development either by formal or informal educational means, which can be in school or the wider community. Taking into consideration the different contexts in bilingual

development, English as an Additional Language, which is an aspect of bilingualism, will be addressed.

According to Ofsted – Office for Standards in Education (1999), a bilingual child is "*one who is in regular contact with more than one language for the purposes of daily living*". Furthermore, the report states that bilingual competency is anticipated to be in one or all four skills (reading, writing, listening and speaking) and that competences could vary. The bilinguals are also identified as *developing bilinguals* and English as an Additional Language (EAL) is used as a term that only refers to the English development of the bilingual child. These students have both a first language (L1) that they use in their community – their L1 is a part of their social and cultural identity, and they also have English (as an L2 or additional language) for educational, career and life opportunities. The Department for Educational Standarts (2006a) describes an EAL learner as a person who speaks another language and is *learning* English in addition to their L1, whereas a bilingual is defined as a person who *has* more than one language at home and at school, although they may not be fully fluent in either of the languages.

In both the Ofsted and DfES definitions of EAL, it can be seen that even though contact with the languages and context is mentioned, there is no explicit distinction between sequential and simultaneous bilingual development. This could imply that the types of bilingual development are acknowledged and encapsulated in the definitions that are made. In summary, EAL learners are learners of English who have a language other than English spoken at home, with no specification as when language exposure occurs. For the purposes of this study, the term *bilingual* will be used for any child that has productive competency (speaking and writing) in both of their languages, regardless of simultaneous or sequential acquisition, or being EAL learners.

2.2 Cross Linguistic Influence

Cross linguistic influence is a normal part of young bilingual development (Murphy, 2014). Cross linguistic influence is the structural influence that one of the languages of the bilingual has on the other, which is assumed to be caused by the two language systems of the bilingual not developing autonomously (Paradis and Navarro, 2003). However, there is empirical evidence from studies where cross linguistic influence has not been seen in bilingual language structures (Paradis and Genesee, 1996; Hulk and Müller, 2000). For the Paradis and Genesee (1996) study the interference of French - English grammars of two- to three-year-old bilingual children was investigated. The fact that children in this study did not transfer verb movement from French to English, demonstrated the separate and autonomous development of both languages. The absence of influence in studies such as Paradis and Genesee (1996) could substantiate the notion that bilinguals develop like monolinguals due to the autonomous development of the bilingual grammars (Yip and Matthews, 2000). Studying the development of monolinguals would therefore help understand the language influences that are seen between the bilingual's two languages, that is, in the cases where there is influence.

The reasons as to why cross linguistic influence occurs, are explained as language dominance (the more proficient language is defined as the dominant language), overlap (structures that are the same in the bilingual's languages) and ambiguity (more than one linguistic structure in the bilingual's languages that has similar meaning) of linguistic structures, and language processing (internal strategies for language use) (Nicoladis, 2012). Paradis and Navarro (2003) also stress that influence could potentially occur due to language external mechanisms of the bilingual child, such as parental input or the community, in addition to language internal factors (linguistic processing in the child's mind).

Although cross linguistic influence will be studied in further detail in the following sections (section 2.3.2, Proficiency and Comparing Monolingual to Bilingual Development), it is noteworthy to state the importance that influence has in the

developing bilingual. As influence between the bilingual's languages is an expected part of multiple language acquisition (Döpke, 1998).

2.3 Bilingual Systems

As part of simultaneous bilingual development, especially in (BFLA), the issue of bilingual children having one or two linguistic systems in their language development has been a topic of discussion (Genesee, 1989; De Houwer, 1990; Genesee, Nicoladis and Paradis, 1995). On the one hand the unitary system of bilingualism claims that children who have been exposed to two languages since birth cannot differentiate their languages (Volterra and Taeschner, 1978)[1], on the other hand the dual systems of bilingualism show evidence that this separation of the languages occurs early in development (Genesee, 1989; Genesee *et al.*, 1995).

Volterra and Taeschner (1978) study the simultaneous bilingual development of two sisters who grew up with the one parent-one language rule, in German and Italian. Both children are studied from the age of approximately 1;2 to 3;6 years old. Volterra and Taeschner aimed to uncover the linguistic stages of these simultaneous bilinguals. Their results are classified into three stages of early bilingual development in which they state that there is one lexical system.

- The first stage is where both languages are linked to one lexical system. The children develop like monolinguals because words do not have translation equivalents, (*i.e.* two different words, one in each language to represent each referent; *la* in Italian and *da* in German both mean *there*, however at this stage *la* is used for non-visible and *da* is used for visible items). Therefore the bilingual child has one lexicon, which includes words from each of the languages.

- The second stage is when the child develops vocabulary for both languages but still bases the language on the same syntactic structure for every utterance. Even though the child is aware that a word has

[1] Volterra and Taeschner's 1978 study has been discussed in this review of literature due to their seminal work in the field of language development and their approach to the language systems of the bilingual.

translation equivalents in each language, these are used according to the context in which they were acquired. For example, when the child uses *brillen* with the mother because German is the language of that parent and *occhiali* with the father, the person the word is directed at influences the choice of words and the words are not used interchangeably. That is; *brillen* cannot be used when communicating with the father and *occhiali* cannot be used with the mother.

- The final stage of development is when the separate lexical and syntactical structures are used according to addressees. The bilingual child can produce lexically and syntactically correct utterances in both languages. Volterra and Taeschner (1978) state that at this level syntactic interference occurs (sentence structures of languages interfere with each other) due to increased communication in both languages. Additionally, this is the stage where they state that the bilingual's linguistic competence is the same as a monolingual.

Genesee (1989) proposes that simultaneous bilingual children do not have one monolingual system in which both languages are stored. Empirical examples from research in language mixing, language development concurrent with age, and the role of input in bilingual development are provided to show shortcomings of the methodologies used in studies that support the Unitary System Hypothesis. Genesee (1989) argues that children are able to separate their language systems from the beginning of language development and that they can use their languages according to different contexts. Further stating that context dependency was a methodological constraint that was not accounted for in Volterra and Taeschner (1978), where the children's language was not observed according to context and only examples of isolated utterances addressed to one parent were given. Thus it cannot be said that bilingual children have an undifferentiated representation of their two languages.

Furthermore, the Genesee, Nicoladis and Paradis (1995) study on five French-English bilingual children (aged 1;10 – 2;2) gives evidence for how bilinguals can discriminate their two languages. Out of the participants in the study, three

were raised in the one parent-one language context and the other two bilinguals mixed languages when speaking with the parents. The researcher visited each of the children, and observed interactions with each parent separately and once where the parents were together. As this study focused on the language directed at the parents, results showed that children were able to differentiate their languages and use both languages separately according to whom they were addressing. Further evidence for the Dual Language Hypothesis has also been shown in Paradis and Genesee (1996), Hulk and Müller (2000), and Yip and Matthews (2000).

In studying the simultaneous bilingualism of young children, it is important to understand the role that both languages play in bilingual development of the language systems. Establishing the extent to which language comparisons between the bilinguals' languages can be made, and recognising that the bilingual's two languages can be differentiated from very early development shows that bilingual linguistic development is similar to monolingual development, in that the languages develop separately. However, in studies where cross linguistic influence or language mixing is reported, although a decision as to whether there is one system or two has not been made, it can be said that the two language systems of the bilingual do not develop autonomously (Murphy, 2014).

2.3.1 Proficiency in Bilingualism

Studying bilingual proficiency, there are factors to take into consideration such as which skills (oral, aural or literacy) are to be observed and which context the language is used in. For example, the developmental relationship between skills can predict later language proficiency, such as oral language skills predicting later reading comprehension (Roth, Speece and Cooper, 2002). As for studies relating L1 oral skills and reading, Nation, Cocksey, Taylor and Bishop (2010) found that children who had poor comprehension skills at earlier ages (at five years of age), showed the same profile when older (at eight years of age), and that children who were weak in oral vocabulary knowledge were inclined to having poor reading comprehension. As oral proficiency in earlier language development is a strong indicator of later language skills, initial focus

should be given to bilingual oral proficiency, for implications to be drawn on the education of either of the languages of bilingual children.

Situations where the speaker is required to have basic conversational skills or use more cognitively demanding skills can determine the language the speaker uses. For example, a conversation the child has about his or her favourite television show will be different from a discussion in a science class. Cummins (1984, 2000) makes the initial distinction between these two contexts as proficiency in Basic Interpersonal Communication Skills (BICS) and Cognitive/Academic Language Proficiency (CALP). While BICS is at the surface level, and encompasses comprehension of the language and vocabulary, grammar and pronunciation skills; CALP comprises of analysis and synthesis skills, which require a deeper understanding of semantic and functional meaning. Cummins (2000) also states that in situations where learners are supported by context, conversational aspects of BICS may take approximately two years to develop to peer appropriate levels, whereas CALP skills may take up to five to seven years to develop. Therefore, a bilingual child displaying fluent L2 production may be showing proficiency in BICS, but may lack academic language fluency.

Bilingual proficiency is also addressed in Nicoladis (2012), as bilingual children tend to be more proficient in one language than the other, and stating that language proficiency may influence language production. Having mentioned context dependency and skills in the language use of bilinguals, it is important to note that bilingual proficiency is an aspect of language development that has various effects in bilingualism; such language interference and vocabulary, which are the foci of this study.

2.3.2 Vocabulary Knowledge

In studying language learners in different contexts, research on oral language development has focused on the development of vocabulary (Murphy, 2014). To know *a word* encompasses knowing the form, meaning, and use of a lexical item; and whether this knowledge is receptive or productive (Nation, 2001). Receptive knowledge is recalling the meaning of the word when the form is

presented, while productive knowledge is the capacity to produce a word in its right form and meaning, and the right context. Lexical proficiency includes lexical competence, which is the size (number of lexical entries in the memory), width (how a word relates to other lexical entries) and depth (various forms and meanings of an entry) of knowledge (Housen, Bulté, Pierrard and van Daele, 2008). The size of knowledge is directly connected to lexical diversity, sophistication (advanced vocabulary) and complexity of second language production. Furthermore, Housen *et al.*'s (2008) analytic framework for investigating second language lexical proficiency development shows that General Type-Token Ratios (TTR) and Frequency-Based Lexical Measures can be used for lexical analyses. In measuring lexical complexity *token* refers to the overall number of words used in language production, whereas *type* is the particular units that are not repeated in production (Šišková, 2002).

Measurements of vocabulary knowledge are usually done through the counting of word frequencies where words that are produced by the participants of the study are investigated and compared to a language corpus, usually focusing on the 1,000 most frequent words in the vocabulary (Daller, Milton and Treffers-Daller, 2007). Calculating lexical diversity gives estimate knowledge of the language proficiency that the person using the language has, as vocabulary size is an indicator of language proficiency. Information on the lexical diversity of bilinguals and monolinguals would further give a way for research to identify whether the language proficiency of the bilinguals compare to monolinguals of that language. For this reason, this study has focused on the TTR measurement of verbs as an indicator of proficiency and to examine whether two groups of speakers of the same language are comparable. However corpus comparisons of narrative data collected from previous narrative studies (Aksu-Koç, 1988), were not used in this study as data was collected from a monolingual comparison group in which participants were matched for age and background information could be obtained.

2.3.3 Comparing Monolingual to Bilingual Development

The need for the study of bilingual and monolingual comparisons stemmed from the Unitary System Hypothesis (Volterra and Taeschner, 1978) in which

researchers addressed the issue of whether bilinguals had one unitary or two separate grammatical systems. Studies emerging from the different views in systems, starting with Genesee (1989), provided evidence for the Dual System Hypothesis and showed that the bilingual could differentiate both languages. In comparing stages of bilingual development, studies have found that bilingual and monolingual development is similar (Paradis and Genesee, 1996; Paradis, Nicoladis and Genesee, 2000). However, the similarities in the studies of monolinguals and bilinguals language development have not necessarily shown correlation with cross linguistic influence (Hulk and Müller, 2000).

The two languages of the bilingual not being autonomous, indicates that even though the languages do develop separately they are still influenced by each other. Yip and Matthews (2000), in addressing cross linguistic influence, state that monolingual and bilingual language comparisons must be made to understand how similar or different the bilingual's languages are to monolingual productions. In doing so, target structures from monolingual examples can be drawn upon. These comparisons of monolinguals and bilinguals can be qualitative and/or quantitative (Yip and Matthews, 2000). Qualitative influence is studied by comparing bilingual productions to monolingual in order to determine structures in the bilingual utterances that are not found in monolingual development and can be explained by interference. On the other hand, quantitative influence is identified with monolingual comparisons with the frequency or productivity of utterance in the target language. For example, Yip and Matthews (2000), studying the relative clause language productions of a Cantonese dominant-English bilingual child raised in Hong Kong with the one parent one language principle, find that Cantonese influences the bilingual's English relative clause production. While English and Cantonese both have noun final word orders, for Cantonese relative clause grammatical rules, the modified phrase comes before the noun. For example, *ngóh sīk ge yàhn* (translating to *I know's people*), meaning *the people I know* (Matthews and Yip, 1994), whereas in English the relative clause phrase comes after the noun. The phrase that is given in Yip and Matthews (2000) as a qualitative influence of the bilingual child's Cantonese would be "Where's *you buy* that one motorbike?" As it can be seen, the English relative clause question is influenced by the

Cantonese and is not a structure that would be used by an English monolingual (an English monolingual would structure this as “where is the motorbike you bought?”). Quantitative influences in language development and comparisons according to Yip and Matthews (2000) are structures that would be non-target-like structures used both by bilinguals and monolinguals, but due to influence of languages, bilinguals would use more of these structures than monolinguals would. An example for this would be null objects in English being used more by the bilingual because it is a structure that exists in Cantonese. Döpke’s (1998) frequency analysis of verb placement by German-English bilinguals in comparison to monolinguals of the languages showed that the V_XP structure (verb followed by verb complement, such as direct object, prepositional object or verb particles) seen in both German and English was used more frequently in the bilingual children’s German, more than what would be observed in the monolingual acquisition of German. This would exemplify the quantitative influence in bilingual language development when compared to monolinguals. The basis that Yip and Matthews (2000) give, that to understand cross linguistic influence between languages monolingual and bilingual comparisons must be made, provides the foundation for the development of this study.

Hulk and Müller’s (2000) research focus is based on the assumption that bilingual children have separate grammars for both of their languages even at the very early stages of language development. Their emphasis is on the acquisition of syntax in language production in which they assume that bilingual children will be influenced by both of their languages when encountering problematic areas of language, such as the use of clausal structures. Adding that these areas of language may also be problematic for the monolinguals too, but at a lesser extent. Hulk and Müller, study the cross linguistic influences of two children who were Dutch/French bilingual (between the age 2;3 to 3;10) and German/Italian bilingual (aged 1;8 at the start of the study) comparing their productions to monolingual child language productions. What is noteworthy in the comparisons of these language pairings is that while Dutch and German are Germanic languages, French and Italian are Romance languages, and coming from different language families, if a structure is not evident in one language, it might not be likely in the other (Hulk and Müller, 2000).

Hulk and Müller (2000) quantitatively compare the bilingual's productions of Root Infinitives (RI) (as these cause problems in monolingual acquisition too) and object drop to the structures produced by monolinguals of the languages. They define RI's as a stage that children go through in their language development where clausal utterances that contain finite or non-finite verbs are used, where adult language would only use finite verbs (a French example given by Hulk and Müller, is *pas coupe*, not cut). Stating that because children allow the use of RIs more than adults would, it is not expected that language overlap in the grammars would occur, which would result in cross linguistic influence. They attribute the cross linguistic influence of the bilinguals' object drop in the study resulting from language internal (language that the individual attains) – not external factors (such as environmental conditions that the learner does not control). Although Hulk and Müller (2000) did not find cross linguistic influence in RI's, they support the notion that even though Germanic and Romance languages develop separately and have different developmental patterns, bilingual children develop similarly to monolinguals in Germanic languages and the same is seen in bilingual children for Romance languages. This concludes that bilinguals in both Germanic and Romance languages develop similarly to their monolingual peers, providing evidence for the two languages of the bilinguals being separate. Establishing that cross linguistic influence shows different patterns of development in languages from different families, it is undeniable that studies in cross linguistic influence with different language pairs from different language families would further understanding of cross linguistic influence. Studying the possible influence between the languages of the bilingual and comparing them to monolinguals would additionally provide insight to the discussion whether the bilingual the one system or two.

Yet apart form different language pairs and the languages that are spoken, an approach that Paradis and Navarro (2003) take is language external factors in cross linguistic influence. As they state that cross linguistic influence is expected in certain domains of language use and that language input from the family as an external factor has not been addressed in previous research. Adding that it has always been assumed that influence is an internal process of

the child's language development. Paradis and Navarro (2003) study corpus data of two Spanish monolingual children (aged 1;8-2;7 and 1;8-1;11) and one Spanish-English bilingual child (aged 1;9-2;6). This quantitative study codes and calculates both the children's and their parents' use of overt and null subjects, and finds that patterns of language use in monolingual and bilingual comparisons confirms cross linguistic influence in bilingual language production. As for answering the role of input, Paradis and Navarro (2003) state that further research into internal and external reasons need to be carried out.

Even though Hulk and Müller (2000) found that the grammars of the bilingual's languages may be separate, this does not prohibit cross linguistic influence when simultaneous language development occurs; it merely implies that there may be a different reason for the influence and the possible transfer (Yip and Matthews, 2000). To study the *systematic interplay between the developing grammars* in order to understand the linguistic diversity and generalisability of bilingual children who have different language pairs, Yip and Matthews (2000) focus on the syntactic contrasts between the Cantonese and English used in wh- interrogatives, null objects and relative clauses. Their data is based on longitudinal data collected in the form of transcripts from audio recordings and diary data, which is then measured by the calculation of Mean Length of Utterance (MLU) (calculating the number of utterances in ratio with the morphemes that are used) for the linguistic development of the child in each language. The results conclude that language development, in terms of MLUs, fluctuated throughout the period of analysis, which for English is contrary to monolingual language development. Furthermore, this variation in MLUs indicated that the interference between the languages was due to shifts in language dominance, and that the dominant language (Chinese) influenced English. Not only can the results from the Yip and Matthews (2000) study be interpreted for developing an understanding of the effects of dominance as a variable in studies of cross linguistic influence, it also draws attention to different measures of quantitative analysis in cross linguistic influence.

Another way in which Müller and Hulk (2001) expand their study on Romance and Germanic languages is through analysing the object omissions in the data

obtained from three bilinguals (Dutch/French, German/Italian, and German/French). They state that bilingual children have problems in verb second structures; full clauses, which is due to clauses connecting both syntax (word order) and pragmatics (the transfer of meaning through grammar), for example *taglia* in Italian translates to *cuts* which is used as the sentence meaning *she cuts it*. Müller and Hulk (2001) conclude that grammatical components, that are internal factors, determine when and where cross linguistic influence could be expected in languages. Explaining the process as the influence that overlap in languages has; once a structure in a language is acquired, and the other language has a similar structure to the one in the other language, then this partial overlap can explain cross linguistic influences in the languages. Consequently, cross-linguistic influence is related to the bilingual analysing both languages but not being able to map strategies and rules as quickly as monolinguals. While French/Italian monolinguals tended not to omit verbs frequently, Dutch/German monolinguals had a higher frequency of doing so. As in Hulk and Müller (2000), this study shows another way in which cross linguistic influence is effected by structural overlap of the bilingual's languages.

Van Heuven, Conklin, Corderre, Guo and Dijkstra (2011), also distinguish the aspect of similarity or difference between the bilinguals' (and in this study trilinguals') languages influencing the language interactions. Their study[2] on adult trilinguals from three different language groups that show variance in orthography and phonology (German/English/Dutch, Chinese/English/Malay, and Uyghur/Chinese/English) found that similarity of scripts alters the cross linguistic influence, in that the Stroop Effect is seen between the trilinguals' languages. Furthermore, for cross linguistic influence it was stated that monolingual comparisons gave researchers the opportunity to investigate whether bilinguals had one language system or two. Although this study is different in design to previous studies mentioned in this review of literature, it stresses the importance of monolingual comparison groups and how

[2] Van Heuven *et al.* (2011) study focuses on cross linguistic influence of language Stroop Effects which is a test used in exploring cognitive control and bilingual processing similarity. The test consists of colour words which are given in coloured ink that is different to that of the colour word's meaning (for example *green* would be written in red ink and the bilingual would be asked to name the ink colour –*red* and ignore the written word –*green*).

proficiency in the languages effects between language influences. In addition, although the focus of the present study investigates the oral language production of child bilinguals, van Heuven *et al.'s* (2011) study draws attention to how the study of different language pairs and groups, in which the similarities and differences between languages influences the cross linguistic influence that may occur. Therefore this present study of Turkish-English bilinguals (bilinguals who have two structurally different languages) were compared to monolingual peers and were attempted to be matched in proficiency.

When associated with the results from Hulk and Müller (2000), and Müller and Hulk (2001), which were supported by Paradis and Navarro (1996) languages originating from different language families or that have different scripts impacts the cross linguistic influence that is expected, in that cross linguistic influence may not be evident. The syntactic structure of the languages that are spoken also influence cross linguistic influence. Although there are no consistent findings in relation to the bilingual having one system or two, evidence from the studies mentioned above provide a way in understanding which factors are prominent in cross linguistic influence. These studies stress the need for further research in different language pairs, and language structures that do not overlap at the surface level. Looking at these studies, it can be said that comparing grammatical aspects of languages that bilinguals have, and studying the different populations in which these languages are spoken moves research towards understanding the acquisition process of bilinguals (Prevost and Paradis, 2004). The research evidence provided in this chapter supports the need for studies focusing on grammatical systems of bilinguals, thus leading to the motivations of this study.

2.4 Typology of Turkish

When a comparison of two languages is being done, it is important to know the basic morphology (language morphemes and units – roots, parts of speech, affixes etc.) and the way a language is classified. Compared to Turkish, English is an analytic language, which does not use morphology and add suffixes, prefixes or infixes to convey meaning, is known to have a strict word order (SVO –Subject, Verb, Object) (Comrie, 1989). Erguvanli (1984) defines Turkish as a

verb final agglutinative language and the most frequently used word order is SOV, although it still has a very flexible word order. It allows omissions in sentence structures, such as subject ommisions (*Okula gidiyorum*, meaning *going to school*, however a null subject is used and the subject is in the verb conjugation *–um*), and takes inflections (Candan, Kuntay, Yeh, Cheung, Wagner and Naigles, 2012).

Slobin and Bever (1982) [3] refer to Turkish word order in their study which included 37 monolingual Turkish preschool children (aged from 2;0 to 4;4) stating that 48 per cent of simple sentences were of SOV word order. Even though VSO structured sentences were the least frequent word order, they made up 6 per cent of the different word orders, while the others were SVO, OVS, and OSV. Slobin and Bever (1982) additionally emphasise that in Turkish sentences that are uninflected are considered ungrammatical due to the case inflectional system that is seen in the structure. To exemplify and compare it with English; the Turkish of the sentence *The cat scratched the boy* would be *Kedi çocuğu tırmaladı (kedi [cat-absolute/bare form], çocuğu [the boy-accusative], tırmaladı [scratch-Past Tense 3PS])* with a canonical SOV word order. While in the sentence in English, word order generates meaning, however for Turkish, case inflection of the subject and object provides the meaning. As in this example, the Turkish sentence could have the OSV order, which would not be canonical but would be grammatical and would have the same meaning (*Çocuğu kedi tırmaladı*). Whereas English, due to its strict word order, would not give the same meaning or be accepted as a canonical form if the order of the words changed (*SOV The cat the boy scratched, OSV The boy the cat scratched*).

It can be deduced that compared to English, Turkish does allow a more flexible word order. Candan *et al.*'s (2012) study investigated the effect of age and word order processing of one to three year old monolinguals of English Turkish and Mandarin. The processing of transitive sentences by the participants was

[3] Although Comrie (1989) Erguvanli (1984) and Slobin and Bever (1982) are references that seem dated, they have been used due to the stable features of language that they address. When the connection between the references and the subject is considered, their timelessness is an indispensable fact.

examined and these typologically different languages that have different word order flexibilities showed that participants were sensitive to word orders when presented with non-canonical orders in their languages. With a focus on Turkish and English language development, this would indicate that even at early stages, children are aware of canonical word orders.

Haznedar (2010), studies the cross linguistic influence of Turkish and English in the use of null subjects. The participants are a Turkish-English bilingual living in Turkey (between the ages of 2;4-4;3 during the study) and a Turkish monolingual (aged 2;0-3;10). Spontaneous utterances are recorded of both children's interactions with each other and are studied with a focus on overt and null subjects. Findings of the study indicate that the bilingual child was influenced by subject realization in Turkish and this could be evidence for cross linguistic influence from English. While Haznedar 's (2010) study indicates that cross linguistic influence may be apparent in the Turkish-English bilingual, further studies examining a different population, in a different context could provide different results. Therefore the present study aims to observe the probable cross linguistic influence in Turkish-English bilinguals, where it is apparent that further research has been stressed in previous studies investigating cross linguistic influence.

Chapter 3

Methodology

3.1 Research Design

This study adhered to a mixed methods design. Turkish/English bilingual children's use of verbs and their use of word order structures in a narrative task was investigated. The frequency of verbs used was measured, as well as whether and to what extent bilingual children's word order structures were observably a consequence of cross linguistic influence. The research comprised of asking Turkish-English bilingual students in a London primary school to narrate a picture story in Turkish and English. Monolingual Turkish students who matched the Turkish-English bilingual students in age carried out the same activity at a school in Turkey.Although the initial focus of the study was to investigate code-switching in Turkish/English bilinguals, analysis of narrative data from the pilot study showed that the bilingual students carried out the activity without a single code-switching utterance. There were, however, signs of cross-linguistic influence and due to this, the study was restructured; cross-linguistic influence became the focus and a Turkish monolingual comparison group was added. Turkish was chosen because, in addition to it being the 12th most spoken first language in England (DfE, 2012), the researcher is a Turkish-English bilingual allowing such an investigation on the cross linguistic influence in Turkish-English bilinguals; given that the study required extensive knowledge of linguistic structures in both languages. This design allows for the investigation of the following research questions:

1. Is there a relationship between the lexical diversity of verbs used by bilinguals and monolinguals? (When bilingual LD is compared to monolingual LD, what is the nature of the relationship?)

2. What word orders are manifest in the Turkish language production of the bilingual students' narrative story telling?

2a. What is the relationship between bilingual word orders and monolingual word orders and do they provide evidence for cross-linguistic influence?

3.2 Sampling Procedure

This section focuses on the recruitment procedure of both the bilingual and monolingual participants and background information of these participants.

3.2.1 Recruitment of Turkish-English Bilingual Participants

London was selected for data collection due to its unique multi-cultural and multi-lingual structure and that it provides greater potential for sample size in data collection. Therefore, a teacher in the Turkish community in London was contacted via telephone through a personal contact who had previous teaching experience in London primary schools. The teacher who was contacted worked in two separate schools in London as a mathematics teacher who also gave supplementary Turkish lessons after school. With the teacher's role as a Turkish teacher, information on schools that had a high concentration of Turkish students was obtained. Additionally, the eligibility of the school was determined according to the number of Turkish bilingual students in the school and the school being located in North London, as the area is known for its "multiculturality" (Office for National Statistics, 2001). Combining the insight from the Turkish teacher and the school's location, the head teacher of the school was contacted by email about the research and asked whether the school was willing to participate (Appendix A – Letter to Head Teacher).

The study was carried out in a primary school in Islington. According to the Department for Education, School and College Performance details from June 2015, 52.5% of the students did not have English as a first language; that is 261 out of 497 students were classified as EAL learners. As for Free School Meals, 43.2% of the students were eligible, placing the school on the High Band for Free School Meals (DfE School and College Performance Tables, 2012).

Upon agreeing to participate in the study, a meeting was arranged with both the teacher of initial contact and a Turkish support teacher that taught at the

school. Both teachers led the additional Turkish classes after school and knew the Turkish students and their families. Liaising with the teachers and explaining the study to them, the Information Sheet for Parents (Appendix B), the Consent Form (Appendix C), the Opt-out Form (Appendix D) and the Home Language Questionnaire (Appendix E) were sent to the parents whose children were in Year 3, 4, and 5 and had Turkish as a first language.

3.2.2 School Demographics for Turkish and EAL

According to research statistics provided by the DfE report of 2012, Turkish was the first language of 20,490 students in England – not including students in special schools. In the local authority report of the first languages of students in state funded primary schools, secondary schools, and special schools; students who were classified as EAL learners in the Islington area was 19,200. Of these students, 1,160 of them had Turkish as a first language (DfE, 2012). This study was carried out in one school in the Islington area, which had approximately 50 Turkish EAL students (according to personal communication with teachers). Therefore, it is only a small sample of a larger community and should be approached with caution so as not to make generalisations.

3.2.3 Recruitment of Turkish Monolingual Participants

The Turkish monolingual participants were recruited after the piloting and primary data collection from the Turkish-English bilingual students was concluded. The monolingual students were from a primary school in Turkey's third most populated city, Izmir. Initially the researcher contacted two headmasters of state primary schools through personal connections. Although both schools agreed to participate in the study, due to curriculum constraints, only one school whose students matched the majority of the Turkish-English bilingual students' age was able to participate. The previously mentioned Information Sheet for Parents, Consent Form, Opt-out Form and Home Language Questionnaire, which were sent to the bilingual students, were translated into Turkish and sent to the parents of the students. The selection criteria of the monolingual students was substantially based on the criteria that they were the same age as the bilingual participants.

Due to the differences in the Turkish educational system that was restructured in the 2012-2013 educational year (Dogan, Ugurlu and Demir, 2014), students that were born in 2005 were attending Year 4, while five out of seven of the bilinguals born in the same year were attending Year 5 in the UK. Because of this difference in the students' educational background and time limitations, the students were only matched on date of birth. Unfortunately other possible confounding variables such as SES, and language reports could not be taken into account.

3.2.4 Turkish-English Bilingual Participants

The Turkish-English participants in the study were seven bilingual students at Key Stage 2. From the seven students that participated in the study, three were female and four were male. All of the female participants were the same age, born in 2005, while two of the male participants were born in 2006 and 2007 respectively; the other two male participants were also born in 2005, which lead to a mean age of 9,5. According to the Home Language Questionnaire; the students' families had lived in the UK ranging from 13 to 30 years. Data showed that four of the students spoke both Turkish and English equally at home, while two claimed to use only Turkish, and data for one participant was missing. The questionnaires also indicated that only one male participant, who was the youngest of the bilingual participants, did not attend the additional Turkish lessons. The remaining participants stated that they attended these after school lessons at least once a week.

3.2.5 Turkish Monolingual Participants

The Turkish monolingual students were seven students in their last year of primary school according to the Turkish educational system. The group consisted of two male and five female students, all born in 2005. While all students were classified as monolingual, one of the students stated in the questionnaire that English was spoken at home. As this would have been a confounding variable in the study, the researcher investigated the background of the monolingual child. Through communication with the parents it was identified that the child had completed the identification section of the

questionnaire and there had been a misunderstanding with the parents. This investigation into the home language of the Turkish monolingual child confirmed that Turkish was actually the language spoken at home. Thus, all of the Turkish children were classified as Turkish monolingual, with no other language spoken at home.

3.3 Method and Materials

3.3.1 Questionnaire

The Home Language Questionnaire (HLQ) (Appendix E) that was sent to the parents aimed to obtain background information about the language the student used at home and to what extent it was used. The HLQ was orally administered to the students at the start of the first session and was audio recorded. The questionnaire that was used was adapted from McKendry (2013) and Paradis, Emmerzael and Sorenson Duncan (2010) and was structured to gain insight on the language interaction the students had at home and in their community, and their general first language tendencies in these contexts. The HLQ also focused on media exposure in the L1 (television, music and movies), computer use – with a focus on online social interaction (computer games, keeping in touch with family and friends, and browsing the web), home print exposure (reading habits), non-English literacy, frequencies of language interaction and abilities, and how the parents thought their child compared to their peers who spoke the same L1.

3.3.2 Narrative

The picture story *"Frog, Where Are You?"* (Mayer, 1969), known as 'the Frog Story' in research, was used for the narratives (Appendix F). It is a wordless picture book that tells a story with 29 pictures. It aims to minimise the input given by the researcher and focuses on eliciting discourse. All of the narratives by the participants were audio recorded.

The Frog Story has been used for story elicitation as a reliable and classic measure, and for investigating, comparing verb structures (among other linguistic features) in Turkish with other languages (Berman & Slobin, 1994). It

gives the participants the ability to make their own language choices when narrating (Boon, 2014). Additionally, asking the participants to narrate the story orally provides insight to their linguistic creativity in both languages (Miller, Heilmann, and Nockerts, 2006).

The transcriptions from the audio recordings of the narrative story serve as valuable input for a corpus of Turkish and English utterances of Turkish bilingual students, in addition to Turkish monolingual students. For the utterances that were examined, only verbs were considered to be relevant to the quantitative analysis. The reason why other parts of speech were not included was due to Turkish having a structure where subject and noun drop is encountered and accepted, however, verbs as a constant part of speech could not be dropped and would prove to be an accurate measure in the bilinguals' and monolinguals' narratives. It is possible for further analyses to be done on the types of nouns or the conjunctions used by the students, however due to time limitations and the scope of this study these were not included in the analysis.

3.4 Administration Procedure

The focus of this study was initially structured in order to analyse code-switched utterances of Turkish-English bilingual students. Therefore, after the consent forms were received, according to the answers given in the HLQ, a convenience sampling technique was used to select the students who took part in the pilot test. One student whose parents had selected the option 'English and the First Language Equally' and one who had 'Always/Mostly Turkish' in Section A of the questionnaire were selected to take part in the pilot study. The reason why these students were chosen was that carrying out the study with two students who claimed to use Turkish to different extents at home would expect to yield differences in their Turkish dominance and would give an estimate of the number of code-switches that could be calculated and used. This would have provided a basis for how the material could be oriented to increase the number of code-switched utterances for the students who had stated different answers for their home language. However, analysis of pilot study data implied that there were no code-switched utterances in the bilinguals' narratives. An additional

outcome of the pilot study was that it gave an estimate time for how long the sessions would last and the applicability of the task for the age group.

After the pilot study was carried out, and alterations were made to the research design, data collection commenced. The procedure was spread over a two-month period, including all stages of the study. While the initial research design for the investigation of code-switching was a narrative task followed by Grammaticality Judgement Tasks (GJTs), and pilot study data indicated that the bilinguals did not code-switch, GJTs were removed from the research focus and design, and only narratives were used as a measure for data collection. The reason for the removal of the GJT's as a measure was due to time constraints in the implementation of the research (while for further research, awareness of canonical and non-canonical word orders through GJT's could provide understanding of bilingual language development). Another alteration made to the research design, upon focus on cross linguistic influence was determined, was the addition of the monolingual comparison group.

For all of the data collection for both groups, students were taken from their classrooms to a room that the administration allocated and were tested individually. Each narrative session took approximately 10 minutes. An introductory conversation with the participant was held at the beginning of each session and the participant was informed or reminded of the structure of the study; that they would have to narrate a story about a boy, a dog and a frog. The bilingual students were not informed of the second session where they would have to narrate the story in English because it could have had effects on students' attention and that they would focus on remembering the story. It was added that this would not impact either groups' school grades. The participants were reminded that during the study if they felt uncomfortable, did not want to continue or needed a break, they could let the researcher know.

After the sessions were completed the participants were taken back to their classrooms and were acknowledged for their participation. Depending on the timetable of the teachers and the students, permission from the administration, and taking into account unforeseen delays, 2-3 sessions could be held each

day. At least seven to ten days were given between the Turkish and English narrative data collection from the bilinguals to minimise effects of remembering.

For the narrative stage the *Frog, where are you?* book was introduced and the participant was asked to narrate the events. In cases where the participant had difficulty in the task, the researcher asked questions to elicit the story telling (*i.e.*, and so, then what, anything else), however, avoiding co-construction.

3.6 Data Analysis

Qualitative influences of transfer include a comparison done with monolinguals and focus on structural language influence. As for quantitative influence, the frequencies or productivity of structures should be compared to those of monolinguals (Yip and Matthews, 2000). Therefore, both qualitative and quantitative analyses were used.

According to Šišková (2002), lexical measures focus on the number of different words used in a text, adding that length of texts have an influence on the number of different words that are used and therefore text length should be limited. In this study, as the narrative “Frog, Where Are You? book was used both the length of the stories and the possible number of words were controlled.

According to Luker (2008) coding is reducing the data according to a theme that outlines an argument, giving the researcher data units for analysis and comparison. Punch and Oancea (2014) state that reasons for reducing and displaying the data through coding are to assist the researcher in drawing conclusions. The coding and analysis method of the collected data in this study was based on frequency counts of verb phrases the participants used. After the narrative data collection was done, all of the voice recordings were transcribed. The researcher then manually coded the transcriptions. Only single word verb phrases, which featured regular verbs, were included in the coding. The participant’s self-repetitions of verbs were included if they were for emphasis, however, these were not considered if they served a function of modification (e.g. *he was go…was going*). Additionally, the verbs were not coded according to their tensed forms but were coded in their infinitive forms, as consistency in tenses was not maintained in the narratives.

Even though there were few cases of code-switched data, these verb phrases were not included in the data analysis or coding. After final coding according to the inclusion and exclusion criteria, analysis was based on 768 verbs (bilingual 359, and monolingual 409).

Although Döpke (1998) states that MLU is a valid measure for language comparisons between children, it is problematic in cross linguistic studies, as it only provides the child's progressing language abilities over a period of language development. Aksu-Koç (1988) studies three 21-24 month old Turkish children's spontaneous speech and refers to MLU as a good index for early language acquisition phases, but adds that it loses its significance as a measure of development after the age of three. For these reasons MLU's were not used as a measure for comparing monolingual and bilingual utterances. Therefore, in the analysis of the coded data, TTRs were used as a measure for lexical diversity. After coding and initial review of data, the verbs were divided into two groups according to the number of tokens (overall number of words used).

While the lexical diversity of bilingual Turkish and monolingual Turkish children could be compared using the data collected by the researcher for this specific population, the monolingual English data that was collected from two children was not enough to carry out a quantitatively comparable analyses with the bilingual English data.

The quantitative statistical analyses were carried out using IBM SPSS Statistics for Macintosh, Version 22. After TTR calculations for both the monolinguals and the bilinguals were done, an independent t-test to compare the differences between the groups' TTR's was carried out.

For the analysis of word order and parts of speech, the transcriptions for both the bilinguals and the monolinguals were coded according to their deviance from the canonical Turkish SOV word order. The coding was carried out by the researcher and a Turkish native speaker for reliability of the deviant word orders. The Turkish native speaker was a certified translator and had high proficiency of Turkish. Due to Turkish having a word order that permits different

structures, sentences that both the researcher and inter-rater determined as not being ones that would be acceptable by adult native speakers were included in the analysis.

Finally, the Home Language Questionnaires were reviewed in order to obtain background information about the participants' age, schooling background in the UK, and additional Turkish activities and lessons they attended.

3.7 Ethical Approval

The study and all of the measures and materials used in the data collection procedure received ethics approval from the University of Oxford Central University Research Ethics Committee on April 1st 2015 and was seen fit to be carried out on this population.

3.8 Methodological Limitations

The limitations of this study can be mentioned in three themes; bilingual population, period of research and English monolingual population. For limitations in the bilingual population; the study is not generalisable to the Turkish EAL or bilingual population in the UK, London, or Islington area due to the small number of participants. The limited number of participants is due to a few reasons; while there were 54 students who came from Turkish families, there were some year groups that did not or could not take part in the study. As the data collection coincided with the Year 6 students' exams, they were excluded from the study. While some students were eligible and willing to participate, consent forms were not retrieved from these students, therefore they could not take part in the study. A final reason for the limited number of participants was that although these students were identified as Turkish, their proficiency levels were not advanced enough to be able to narrate a story, as they were not considered bilinguals.

Limitations associated with the time period that the research was carried out in was that the allocated data collection duration, unforeseen events in the data collection process (such as the addition of a Turkish and the attempt to add an English monolingual control group), and the nature of the data collection and

analysis stages, sufficient time was not able to distributed to all or certain details in the study.

A final limitation was the noteworthy attempt to include an English monolingual comparison group (narrative data from two monolingual English students were collected), however, due to the educational year coming to an end, this group was excluded from the analysis due to insufficient data. Further limitations will be addressed in section 6.2.

3.8.1 Observer Effect

Having mentioned that bilingual children use code-switching to different extents depending on the communication, asking the participants to narrate the story in either of their languages could have had an effect on the participants focusing especially on their speech and being conscious of their productions. Observing their language and making the participants aware of this may have lead to code-switching not being frequently used as expected.

Although the researcher was introduced to the participants in advance of data collection, as the participants were not familiar with the researcher as they would be with their peers, family, or teachers, this also could have lead to the participants using language different from that of their usual structures or patterns.

Chapter 4

Results and Findings

This chapter, in which the analysis of the data that was collected will be reported, is divided into two sections. Initially, the quantitative analysis of the verbs that were used by the participants will be analysed. Lexical diversity and how differences and similarities between the monolinguals' and the bilinguals' verb use can be interpreted as an indication of their languages proficiencies will be approached. Second of all, the quantitative and qualitative results of non-canonical word orders of bilinguals and monolinguals in Turkish will be examined, which will lead into the Discussion and Conclusions chapter.

4.1 Lexical Diversity Comparisons

This section aims to answer the first research question of whether a relationship between the lexical diversity of verbs used by bilinguals and monolinguals existed and what the nature of this relationship was. To answer this question, the types and tokens of verbs were calculated. While a total of 768 verbs (tokens) were coded in the transcripts (bilingual 359, and monolingual 409), there were 97 verbs (type) that were used across both groups. While some verbs were used less frequently than others. Therefore, the question of whether verbs with lower frequency (those that had lower token counts compared to others) was group specific or seen across groups surfaced. If these low frequency verbs were randomly distributed across the groups then they could be held separately from the analysis. For this, a one-way analysis of variance (ANOVA) was carried out to establish whether there was a difference in the number of total verbs used according to the groups. The total number of verbs that were used by each participant are given below (Table 4.1.1).

Group								*Sum*	*Mean*	*Variance*
BL	52	37	57	47	62	57	47	359	51.285	70.238
ML	57	62	47	63	60	60	60	409	58.428	28.952

Table 4.1.1 Total number of verbs (tokens) by each participant in bilingual and monolingual groups.

According to these the ANOVA was carried out. The cut-off point for the confidence interval will be used as < .05 (Field, 2005). The one-way ANOVA showed F*(1, 12)* = 3.60*, p* = .082*.* As the p value was higher than .05, it can be said that there was no evidence of a difference between the tokens of the groups' verb frequencies. Based on this an in depth analysis of the difference between individual verb frequencies compared according to group occurrence could be calculated (Table 4.1.2).

Group								*Sum*	*Mean*	*Variance*
BL	25	24	24	20	35	24	25	177	25.285	21.238
ML	27	33	25	30	25	32	36	208	29.714	17.904

Table 4.1.2 Total number of different verbs (types) by each participant in bilingual and monolingual groups.

Again, according to the ANOVA *F(1, 12)* = 3.50*, p* = .085, it was concluded that there was no significant difference between the groups according to the types of verbs they used in their narratives too. Although these tests were not statistically significant, the fact that it is close to the cut-off point of *p* < *.05*, it could indicate a trend in the data. The fact that results indicated no significant

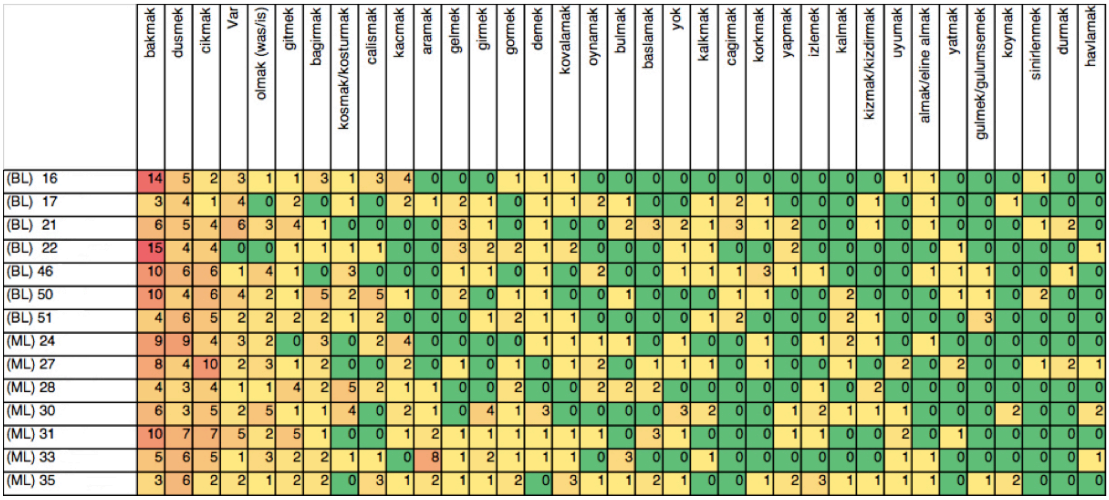
group differences in the types and tokens of verbs that were used, in order to reduce the data to provide a more detailed frequency analysis, an ANOVA was run to analyse verbs on different frequency scales (Table 4.1.3).

Group	*Freq1*	*Freq2*	*Freq3*	*Freq4*	*Freq ≥5*	*Sum*	*Mean*	*Variance*
BL	109	60	36	44	110	359	71.8	1259.2
ML	122	92	42	32	121	409	81.8	1830.2

Table 4.1.3 Frequencies of verb tokens

To summarise and explain Table 4.1.3 of frequencies of verb tokens, it can be said that the number of verbs that bilinguals used only once was 109 tokens, the number of verbs they only used twice was 60 tokens, and the number of verbs they used on more than five occurrences was 110 tokens, and similarly for the monolinguals. A single factor ANOVA carried out for these frequencies for verbs according to how they were grouped (Frequency = 1, Frequency = 2, etc.) shows that there was no significant difference $F(1,8) = .161$, $p = .69$.

The comparison of the bilinguals' and monolinguals' lexical diversity through these analyses gives an indication for the comparison of their lexical proficiencies. As it was demonstrated that the lexical proficiencies of the groups were comparable, word order comparisons between the monolinguals and the bilinguals could be carried out. (Appendix G gives a detailed view of the participants' verb frequencies).



	bakmak	dusmek	cikmak	Var	olmak (was/is)	gitmek	bagirmak	kosmak/kosturmak	calismak	kacmak	aramak	gelmek	girmek	gormek	demek	kovalamak	oynamak	bulmak	baslamak	yok	kalkmak	cagirmak	korkmak	yapmak	izlemek	kalmak	kizmak/kizdirmak	uyumak	almak/eline almak	yatmak	gulmek/gulumsemek	koymak	sinirlenmek	durmak	havlamak
(BL) 16	14	5	2	3	1	1	3	1	3	4	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0
(BL) 17	3	4	1	4	0	2	0	1	0	2	1	2	1	0	1	1	2	1	0	0	1	2	1	0	0	0	1	0	1	0	0	1	0	0	0
(BL) 21	6	5	4	6	3	4	1	0	0	0	0	3	1	0	1	0	0	2	3	2	1	3	1	2	0	0	1	0	1	0	0	0	1	2	0
(BL) 22	15	4	4	0	0	1	1	1	1	0	0	3	2	2	1	2	0	0	0	1	1	0	0	2	0	0	0	0	0	1	0	0	0	0	1
(BL) 46	10	6	6	1	4	1	0	3	0	0	0	1	1	0	1	0	2	0	0	1	1	1	3	1	1	0	0	0	1	1	1	0	0	1	0
(BL) 50	10	4	6	4	2	1	5	2	5	1	0	2	0	1	1	0	0	1	0	0	0	1	1	0	0	2	0	0	0	1	1	0	2	0	0
(BL) 51	4	6	5	2	2	2	2	1	2	0	0	0	1	2	1	1	0	0	0	0	1	2	0	0	0	2	1	0	0	0	3	0	0	0	0
(ML) 24	9	9	4	3	2	0	3	0	2	4	0	0	0	0	1	1	1	1	0	1	0	0	1	0	1	2	1	0	1	0	0	0	0	0	0
(ML) 27	8	4	10	2	3	1	2	0	0	2	0	1	0	1	0	1	2	0	1	1	1	0	1	0	0	1	0	2	0	2	0	0	1	2	1
(ML) 28	4	3	4	1	1	4	2	5	2	1	1	0	0	2	0	0	2	2	2	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0
(ML) 30	6	3	5	2	5	1	1	4	0	2	1	0	4	1	3	0	0	0	0	3	2	0	0	1	2	1	1	1	0	0	0	2	0	0	2
(ML) 31	10	7	7	5	2	5	1	0	0	1	2	1	1	1	1	1	1	0	3	1	0	0	0	1	1	0	0	2	0	1	0	0	0	0	0
(ML) 33	5	6	5	1	3	2	2	1	1	0	8	1	2	1	1	1	0	3	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	1
(ML) 35	3	6	2	2	1	2	2	0	3	1	2	1	1	2	0	3	1	1	2	1	0	0	1	2	3	1	1	1	1	0	1	2	0	0	0

Figure 4.1 Map of verb frequencies in the Frequency ≥ 5 group. (Red, verbs most used by participant > Green, verbs least used by participant)

4.2 Word Order Comparisons

This section will focus on the word order data that was collected from the bilinguals and the monolinguals. While the statistical analyses draw attention to the frequency of word order structures, descriptive analysis of specific utterances in the word orders will also be examined.

4.2.1 Statistical Analysis of Word Orders

According to the sentence structures that were determined as non-canonical to Turkish, by both the researcher and the Turkish native speaker, are given in Table 4.2.1.

Group	SVO	SOV	(S)VO	(S)OV	OVS	OSVO	S(SC)VO	Total
BL	15	5	10	5	5	0	1	41
ML	7	5	8	3	5	1	4	33
Total	22	10	18	8	10	1	5	74

Table 4.2.1 Non-canonical word order distribution

To test whether there was a difference in the comparison of the distribution in word orders of the bilinguals and the monolinguals, a Wilcoxon Signed-Rank Test, which is a non-parametric classic paired t-test (Field, 2005), was carried out in SPSS. According to the analysis, there was no significant difference between the monolingual and bilinguals' use of non-canonical word orders T = 54.4, p = .8.

4.2.2 Descriptive Analysis of Word Orders

As previously stated, the word orders that were deemed non-canonical structures that adult native speakers of Turkish would not use in their utterances, this section will focus on descriptions of these sentences. According to Figure … of word order distribution, prominent sentences that were coded from the narrative data show some distributions more likely to be seen in bilinguals (SVO, (S)VO, (S)OV), while some are equal in both groups (SOV, OVS). The following explanations will focus on these utterances according to the distribution across groups.

For the bilingual participants' Turkish sentences, when compared to those of the monolingual Turkish participants, the structure that was used most was SVO sentences. When compared to monolingual sentences, bilinguals had produced 72% of the SVO structures. However, it is interesting to note that monolinguals produced the remaining percentage, when this sentence structure was not a common structure in Turkish. An example for an SVO structure that was used by one of the bilinguals is given below.

(1) Çocuk çağırıyor kurbağayı

Boy-call [Present Simple, 3PS]-frog[accusative]

The boy is calling the frog

While the sentence (1) fits the SVO word order for English, if the sentence is restructured into the more typical Turkish word order of SOV, which would be *Çocuk kurbağayı çağırıyor –the boy the frog is calling* this would be structure

that would be more acceptable in adult language. Another example of the SVO structure seen in one of the bilingual children's utterances is;

(2) *Sonra köpek ve çocuk gördü annesi ve kurbağa*

Then-dog[absolute]-and-boy[absolute]-see[Past, 3PS]-mother[accusative]-and-frog[absolute]

Then the dog and the boy saw the mother and the frog

Although this sentence (2) contains a grammatical error in the conjugation of the verb *see*, where the Past Tense third person plural should have been used and the *frog* is missing the accusative case ending that would also need to be accusative, the sentence still adheres to the English SVO structure, rather than the Turkish. While bilinguals show use of SVO structures, this word order is also seen in the monolingual productions to some extent.

(3) *Köstebek kızıyor çocuğa*

Mole[absolute]-be cross at[Present Simple, 3PS]-boy[dative]

The mole is getting cross at the boy

(4) *Sonra* köpek sallıyor ağacı

Then-dog[absolute]-shake[Present Simple, 3PS]-tree[accusative]

Then the dog is shaking the tree

As can be seen in the two examples above, the monolinguals produce SVO structures similarly to the bilingual utterances. While the statistical analysis of word orders did not show a significant difference between the non-canonical sentences of both groups, a trend is still apparent in the bilinguals' use of the SVO sentence structure.

The second most used structure by the bilinguals, and to some extent, the monolinguals was the SOV structure. Despite this word order being the most frequently seen order in Turkish, it still may not provide a structure that is typical

to adult native speakers of Turkish. This is due to the noun phrase in the sentence being divided into different parts of speech. To exemplify:

(5) Köpek de şeyin içine bakıyor kurbağa orada mı [diye]

Dog[absolute]-also-thing[genitive]-inside[dative]-look[Present Simple 3PS]-frog[absolute]-there-mi[interrogative particle]

The dog is also looking inside the thing to see [if] the frog is there

This sentence is non-canonical for Turkish, as it does not have the conjunction *whether/if* after the interrogative particle, which is used as a sub clause in Turkish. Additionally, the typical sentence structure for (5) would be *Köpek de, kurbağa orada mı diye, şeyin içine bakıyor*, for it to be a structure that follows the SOV Turkish word order. However, this SOV structure is mostly seen by one participant (Bilingual participant 22), and occurs in similar cases of sub clause use that is non-canonical. An example from another bilingual participant who has used the SOV structure with a sub clause is given below.

(6) Sonra oğlan da her yere bakıyor kurbağayı bulmak için

Then[conjunction]-boy[absolute]-also-everywhere-look[Present Simple 3PS]-frog[accusative]-find[Infinitive]-to[postposition]

Then the boy is also looking everywhere to find the frog

This sentence (6) is an example of sub clause use by the bilinguals that follows the SOV structure but necessarily does not adhere to the grammatical rules that are typical of Turkish. However, we can also see non-canonical SOV and sub clause structures in monolinguals too.

(7) Köpek de ağaca çıkmaya çalışıyor arıların yuvasına gitmek için

Dog[absolute]-also-tree[dative]-climb[participle]-try[Present Simple 3PS]-bee[plural genitive]-nest[dative]-go[Infinitive]-to[postposition]

The dog is also trying to climb the tree to go to the beehive.

As it can be seen in both examples (6) and (7), the sub clause in the SOV structure is divided as parts of speech are used separately. While the SOV structures are not used frequently, there is a tendency for their occurrence to be associated with non-canonical sub clause sentences. Furthering the analysis, the following word order, the (S)VO structure is also a commonly occurring word order, which stems from Turkish having null subjects. As Turkish grammar includes null subjects, also known as pronoun drops (pro-drop), the subject of the verb can be inferred from the conjugated verb. This would be seen in a sentence such as *Will be back in a few hours*, where the subject *[I]* is implied. Null subjects are seen in the bilinguals' and monolinguals' productions in different word orders. Sentences (8) and (9) are examples of this subject drop in (S)VO sentences.

(8) Korkuttu çocuğu

Scare[Simple Past 3PS]-boy[accusative]

(It) scared the boy

(9) Bağırıyor kurbağanın adını

Shout[Present Simple 3PS]-frog[genitive]-name[accusative]

(He) is shouting the frog's name

As it can be seen from these sentences the bilingual participants use pro-drop for the subject. While the calculation of percentages shows that bilinguals used most of the null subjects, this structure was also apparent in the monolingual data.

(10) Bakmış aşağı

Look[Past Perfect 3PS]-down

(He) had looked down

(11) Arıyorlar kurbağayı

Search[Present Simple 3PP]-frog[accusative]

(They) are searching for the frog

As it can be seen, the null subject is used similarly in both groups. What is observable in these structures is that if the subject was not dropped, example (10) would have been:

(10a) [Geyik] bakmış aşağı

The moose had looked down

(11) would have been

(11a) [Çocuk ve kopek] arıyorlar kurbağayı

The boy and the dog are searching for the frog.

In both (10a) and (11a), when the subjects are included into the sentences, in a sentence initial position, the (S)VO structure becomes SVO. This restructuring of the pro-drop word order is still not a structure that would be accepted as canonical (due to not being an SOV structure), and further adds to the trend that is seen in the bilingual and monolingual groups' SVO structures. Following the null subject word order, (S)OV structures are also evident in the data. Examples from bilingual participants include:

(12) Sonra taşların üzerine çıkıyor kurbağayı bulmak için

Then-rock[plural genitive]-on to-climb[Present Simple 3PS]-frog[accusative]-find[Infinitive]-to[postposition]

Then (he) climbs on to the rocks to find the frog

(13) Ona bakıyorlar oturup

İt[dative personal pronoun]-look[Present Simple 3PP]-sit[participle]

(They) are sitting looking at it.

The structures used in the (S)OV structures are similar to SOV structures that were used with sub clauses, as the word orders that are seen in the (S)OV structures also use participles (*12. to find the frog, 13. sitting).* Monolingual examples of the (S)OV structure is given below.

(14) Ondan sonra ağacın üstünden çıkıyorlar köpeğiyle birlikte

And-then-tree[genitive]-over[ablative]-come up[Present Simple 3PP]-dog[accusative+with]-together

And then they are coming up over the tree together with his dog

The reason why (14) is not accepted as canonical is that the phrase *with his dog* is a part of the object, although it has been placed at the end of the sentence. Sentence (14) would therefore be restructured as *Ondan sonra* köpeğiyle birlikte ağacın üstünden çıkıyorlar. The null subject in this sentence refers to the boy. Yet, another issue in this sentence is the subject verb agreement. Due to the monolingual using a null subject in this sentence, the conjugation for person of the sentence has shifted from third person singular (3PS) to third person plural (3PP), therefore, when *the boy* is used as a subject again, there is no subject-verb agreement. Sentence (14), with its canonical word order and a subject verb agreement would be *Ondan sonra köpeğiyle birlikte ağacın üstünden çıkıyor*. As it can be seen, the sub-clause is moved next to the object and subject-verb agreement is achieved by using the 3PS. From both the monolingual and the bilingual data it can be seen that (S)OV structures used by the monolinguals are similar to the bilinguals' utterances. However, at this point it is important to examine OVS structures that do not drop the subject of the sentence. Examples to sentences bilinguals use in OVS structures are given below.

(15) Sonra yere düşürdü o

Then-ground[dative]-drop[Past 3PS]-he[personal pronoun]

Then he dropped it to the ground

(16) Sonra bir tane kurbağayı almış oğlan

Then-one-single-frog[accusative]-take[Past Perfect 3PS]-boy[absolute]

Then the boy had taken one single frog

As for the monolinguals' OVS sentences:

(17) Burada ağacın arkasına bakıyorlar köpek ve çocuk

Here-tree[genitive]-behind[dative]-look[Present Simple 3PP]-dog[absolute]-and-boy[absolute]

Here the boy and the dog are looking behind the tree

(18) Kurbağaları görüyorlar ikisi

Frog[plural accusative]-see[Present Simple 3PP]-both

Both of them see the frogs

OVS structured sentences in both groups is seen as the shift in parts of speech, where the subject is moved to the end of the sentence. Possible reasons for this shift and other explanations of the examples will be given in the next section, where the research questions will be attempted to be answered and the cross linguistic influence that is the focus of this study will be examined.

Chapter 5

Discussion

As the literature in cross linguistic influence research has stressed, there has been a need for research with bilinguals who have different language pairs in order to understand the way bilinguals use both their languages. The present study aimed to investigate the possible cross linguistic influence of the Turkish-English bilingual children living in the UK, focusing on their narrative story telling. The Turkish these children used was compared to the Turkish of their monolingual peers in Turkey. Results from the study attempt to answer the questions of whether the two groups were comparable in terms of lexical diversity, followed by how cross linguistic influence could be seen in non-canonical word orders. This chapter addresses these questions and discusses the findings of the study, and where these findings stand in the literature.

5.1 Research Question 1

Is there a relationship between the lexical diversity of verbs used by bilinguals and monolinguals? (When bilingual LD is compared to monolingual LD, what is the nature of the relationship?)

To answer the question in detail, four stages of analyses were carried out. The first two stages focused on the difference of verb frequencies between groups. The latter two stages however, focused on analysis that could provide detailed insight into the comparison of individual use of verbs by the monolinguals and bilinguals. To summarize the results of the analyses carried out the in the first stage of frequency analysis, the two ANOVA's in which the number of verb types (N=97) and the number of tokens (N=768) used by the monolinguals and the bilinguals were compared between groups showed no significant difference. This finding allowed further inspection of verb frequencies where data could be simplified and a more detailed analysis of verbs could be carried out. All of the statistical analyses at this stage further indicated that there was no difference between the two groups.

Lexical diversity, in connection to second language proficiency was seen as an essential factor in language knowledge and vocabulary development (Housen *et al.*, 2008). Therefore using TTR's and frequency based lexical measures in measuring vocabulary knowledge would give a representation of the bilingual's language proficiency. Consequently, findings in this study comparing the relationship between the monolinguals' and bilinguals' lexical diversity would suggest that the Turkish proficiencies of the two groups were similar. Looking at the home language questionnaire data, considering that the bilingual participants (except one) attended additional Turkish lessons, and Turkish was used at home (while in some cases it was used equally with English) this exposure to Turkish could have influenced the commeasurable vocabulary knowledge. As Yip and Matthews (2000) state, to study cross linguistic influence, monolingual comparisons are necessary and quantitative comparisons can be achieved through analysing the frequency of certain utterances.

5.2 Research Question 2

What word orders are manifest in the Turkish language production of the bilingual students' narratives? What is the relationship between bilingual and monolingual word orders and do they provide evidence for cross linguistic influence?

The word order analysis that was carried out indicated that there was no significant difference at the quantitative level in the non-canonical word orders produced by both the monolinguals and the bilinguals. However, according to studies investigating qualitative influence (Yip and Matthews, 2000), comparing utterances produced by bilinguals and determining how they differ from monolingual productions aid in explaining cross linguistic influence. Even though word order analysis in the present study yielded no statistical significance, there were apparent trends in the productions.

The descriptive analysis of the non-canonical word orders especially indicated more use of SVO, (S)VO structures by bilinguals. Seeing that English word order is strict in its SVO order, it is not unexpected to discover the bilinguals'

tendency to use SVO structures in their Turkish. Yip and Matthews (2000) also point out that if a structure is used in one of the bilingual's languages, and the bilingual's other language also accommodates it, then this overlap could increase the use of that structure. The bilinguals using SVO structures in Turkish (see Section 4.4.2, examples 1 and 2) would be an example of this structure being used considerably more in the bilinguals' Turkish than the monolinguals', and could suggest cross linguistic influence. The cases in which SVO word order was used by monolinguals could be explained by the flexibility of word order in Turkish, as cross linguistic influence of English is not expected to be seen in Turkish monolinguals.

However, the pattern seen in (S)VO structures, where the subject is dropped and is implied (see Section 4.4.2, examples 8, 9, 10, 11), is more consistent with Turkish grammar, in that subject drop is not a feature of English grammar. In the comparison of the groups, another finding that is observed is the monolinguals' production of subject dropped VO sentences. This finding could further state that subject drop is common in the Turkish monolinguals and that the bilinguals' Turkish use is consistent with their peers. Although the sentences where the subject is dropped are considerably less than the SVO structure in general, this would indicate a possible attempt in using Turkish structures by the bilinguals. The fact that this is paired with an English word order could be an indication of shift in dominance or external effects of language input (Paradis and Navarro, 2003).

Another structure that has been used more frequently and seen in both groups equally is the OVS structure (see Section 4.4.2, examples 15, 16, 17, 18). This is where the subject is placed at the end of the sentence. This type of sentence in Turkish is an *inverted sentence* and is usually used for emphasis/stress where the word order shifts (Erguvanli, 1984). Consistent with these examples, the fact that both groups use this structure and it is a feature of Turkish word order flexibility, the OVS structure used by bilinguals in their Turkish cannot necessarily be interpreted as evidence for cross linguistic influence from English.

Finally, other evidence in the word order analysis and comparisons between monolingual and bilingual use of the SOV, the sentences with sub clauses (S(SC)VO), and other occurrences of difference word orders (OSVO) should be reviewed. Although for the analysis these three word orders were approached separately, their common trait is that the object is used in a non-canonical manner. In all of the examples distinguishing these word orders (see Section 4.4.2, examples 5, 6, 7, 12, 13, 14), there are parts of speech that influence the non-canonical order. The participles used in (S)OV (examples 12, 13) do not adhere to the typical word order as the participle is used at the end of the sentence, where for it to fit the canonical word order, it would have to be used after the subject. Similarly, with the sub clauses used by both participant groups, non-typical word orders can be seen. As Hulk and Müller (2000) state, if clausal structures cause problems in the production of sentences in one language, they are likely to do so in the other language of the bilingual. The use of SOV, S(SC)VO and OSVO sentences by the bilinguals may be an indicator of this production trend. Yet, the prevalence of these structures in monolingual utterances and the fact that there was no significant difference found between the monolinguals and the bilinguals may indicate that these were common occurrences in Turkish language development. Hulk and Müller (2000) point out that the language development of bilinguals who have languages that are structurally different may still show similar development to their monolingual peers. Overlap of languages is stressed, in that it may inhibit or prohibit cross linguistic influence. The findings of this study further substantiate that the bilinguals' language was similar to their monolingual peers, and this could be accounted for with the bilinguals' two languages having structural differences.

An additional observation was made in the more detailed inspection of questionnaire data and word order analysis. It indicated that the youngest bilingual participant (aged 8;1 at the time of the study) and who was not attending additional Turkish lessons after school had produced 15 of the 74 non-canonical word orders. While the next participant to utter the highest number of non-canonical word orders, had used 9, and was a monolingual. It could be said that in the study of the bilingual's utterances and the extensive use of non-canonical word orders could be due to age and environment effects.

Yet, this this does not coincide with the word orders that monolinguals produced and does not provide an adequate explanation. It cannot be said that the bilingual only produced more non-canonical structures because of not attending additional Turkish lessons, and neither is there an explanation in the questionnaire that would account for the monolingual producing more non-canonical structures. At this point, differences in the number of non-typical language production can be attributed to language development and that development can show variance according to individuals (Dörnyei, 2005)

For this study, it can be said that even though trends were observable in the bilinguals' Turkish, these findings did not provide sufficient evidence for cross linguistic influence from English. Consequently, the utterances and non-canonical word orders that were produced by the bilinguals were qualitatively similar to their monolingual peers. Following the implications that Paradis and Genesee (1996), Hulk and Müller (2000), and Müller and Hulk (2001) make, and is supported by the findings of this study is that even though cross linguistic influence may be expected in languages with different structures, it may not occur. Another deduction to made for the absence of cross linguistic influence would imply autonomous development of the bilinguals' two languages, which would support the Dual System Hypothesis, proposed by Genesee (1989). Additionally, detailed examination of particular utterances by the bilinguals could support Nicholadis (2012), in cases of structural overlap and language dominance, and Paradis and Navarro (2003) in the external mechanisms influencing language use.

Chapter 6

Conclusion

This study asked whether cross linguistic influence in bilinguals of Turkish and English was apparent. As evidence showed, the absence of cross linguistic influence when bilingual language production was compared to monolinguals' established that the languages might be developing autonomously. This implied that the two languages of the bilingual, the Turkish and the English developed separately. The reasons for the absence of cross linguistic influence however could be attributed to input and external language effects. Yet, limitations are applicable in this claim and will be further mentioned.

Another aspect of bilingual language use that this research approached was the comparison of lexical diversity of the verbs used by monolingual and bilingual participants. Comparisons of the groups showed that both groups had similar lexical diversity and could thus be stated that their proficiencies were of comparable standards. Reasons for the bilinguals' proficiency showing no significant difference to their monolingual peers could be attributed to their exposure to Turkish through lessons, in their community and at home.

Considering both of the aspects that this research tackles, it can be concluded that the bilinguals' Turkish showed strong signs of autonomous development from English, and their oral proficiency and vocabulary knowledge was in fact comparable to Turkish monolinguals.

6.1 Pedagogical Implications

Analysing and understanding the data obtained from this study, the bilinguals' oral language proficiency being in line with monolingual peers could help draw pedagogical implications. As indicated by Murphy (2014), studies on the vocabulary development of bilinguals focus on oral proficiency and this proficiency is a predictor of later language skills (Roth, Speece and Cooper, 2002). Additionally, as the bilinguals attended (six out of seven participants) additional Turkish lessons, although the scope of the lessons was not observed, it can be assumed that these lessons had an influence on the

bilinguals' overall Turkish proficiency. Thus, it could be concluded thatadditional support for bilingual students for their language other than English could increase their proficiency to a similar level of their monolingual peers.

6.2 Limitations

In addition to the limitations mentioned in Chapter 3, there are minor limitations. As the scope of this study focused on word orders as an indicator of cross linguistic influence, investigation of different aspects of the language used by the bilinguals could yield different results.

A general remark to be made in the limitations of this study would be the approach to cross linguistic influence research in the field, as it is an area that is widely studied. An attempt to carry out a study that addressed an extensive spectrum of studies was made, however, due to the scope of current research in the field and limited time given for the study, there is the possibility of various evidence in research being overlooked.

Finally, although the language background questionnaire was administered, further detail to be obtained concerning the bilinguals' language background could further explain the cross linguistic influence, or lack thereof.

6.3 Directions for Future Research

According to the results of this study and the pedagogical implications, further research directions should be addressed. Although the lexical diversity of the bilinguals showed no statistical difference to the monolinguals', the vocabulary knowledge of these two groups could be approached. A focus on word frequencies and how they would compare to corpus data and a comparison with the most frequent words in Turkish, and how these participants' lexical diversity can be associated with these frequencies could further the understanding of bilingual proficiencies.

In accordance with Candan *et al.* (2012), who found that awareness of canonical and non-canonical word orders in Turkish and English was apparent

in the monolingual language development of 1-3 year olds, further research could focus on the sentence processing of bilinguals with the same language pairs, with an approach on word orders. The possible addition of sequential bilinguals could also reflect on the language development of varying populations and how they process language and canonical forms.

Additionally, as mentioned in the limitations, studies including English monolingual participants would aid in the perception of possible cross linguistic influence in bilinguals. All of these aspects combined, the approach to bilingual language education in the UK could be tackled, focusing on the importance of the education of both the languages the bilingual has.

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Appendices

Appendix A – Letter to Head Teacher

University of Oxford
Department of Education
15 Norham Gardens, Oxford OX2 6PY
Research in English as an Additional Language
Director: Professor Victoria Murphy
Tel: +44 (0)1865 274 042

Nitsa Sergides
Grafton Primary School,
Eburne Road, London N7 6AR
01 May 2015

Dear Nitsa Sergides,

Berke Andic, in association with the University of Oxford, would like to conduct a research project in your school. Berke Andic is currently a Masters student at the University of Oxford, Department of Education. She and her supervisor, Professor Victoria Murphy, are interested in children who are learning English as an Additional Language (EAL) in the UK. The research project aims to explore how the EAL learners use both their languages in informal settings, and what they consider grammatical while doing so. This will help us understand what the dominant features in their language use is and give insight to their alternating sentence structures at a grammatical level.

Provided that you see fit your school participate in the study, the researcher (Berke Andic) will come to the school to carry out a two-stage test with year 3-4-5 students (7-10 year old). There will be two separate tests the students will perform individually. The first one will last approximately 30 minutes and will consist of a narrative story told by the student. The second task will be made up of a 10-minute session where the student will be given sentences and asked whether these sentences are ‘correct’ or not.

Parents will be asked to fill in a questionnaire about the languages they speak at home after they have agreed that their child participate in the study. The research will be carried out with approval from the University of Oxford Ethics Committee.

Having previously contacted Mr Ozguven for information about the school and he kindly accepted to help with the research, adding that you had also approved of participating in the study. I would like to thank you for agreeing to participate and also like to add that if you need more information you need not hesitate in contacting me. You may also contact my supervisor, Professor Victoria Murphy, if you have any further questions or would like to discuss the project. I appreciate the time you have taken to read this letter and your decision to participate in the research project.

I have attached an Information Sheet about the project, which gives more insight into the research.
Coordinating with Mr Ozguven we agreed on my coming to the school on the afternoon of Tuesday, May 5th would be best. I hope this day suits you too as I could answer any questions you may have, and have the opportunity to meet you in person.

Sincerely,

Berke Andic
Candidate, MSc in Applied Linguistics and Second Language Acquisition
Department of Education, University of Oxford
Tel: +44 (0) 7918 525 594 Email: berke.andic@kellogg.ox.ac.uk

Victoria A. Murphy, PhD
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Appendix B – Information Sheet for Parents

University of Oxford
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Tel: 07918 525 594
http://www.education.ox.ac.uk/research/applied-linguistics/r-e-a-l/

Study on Language Patterns

Information for Parents

In partnership with the University of Oxford, your child's school has agreed to take part in a study to investigate the language patterns of Turkish children who have English as an Additional Language. I would like to invite you to take part in this study.

Title 'Exploring patterns of language use in Turkish-English bilinguals' perception of grammar.'

What are we trying to find out?
The aim of this study to investigate the language patterns used in Turkish-English language alternations by English as an Additional Language (EAL) learners and how they can be explained with regards to grammatical models. The study is important in helping researchers understand the dominant features in Turkish-English language alternations in grammar.

What will happen if my child takes part?
If you decide that you are happy with your child taking part in the study, you will be asked to fill in a questionnaire about the languages you speak at home. The researcher will visit the school on two occasions where your child will be asked to narrate a children's story from a book (lasting no more than 30 minutes). For the second visit, your child will be asked to read some sentences and give their opinion (lasting approximately 10 minutes).

What happens to the results of the study?
The recorded data for each child will be kept strictly confidential. A code number will identify the children and their data will be stored anonymously. Regular

summaries of the study will be available for the school and to the families that are interested in the study.

Statement of any benefits or risk

Who is conducting the research?

The research project is organized by Berke Andic of the Department of Educational Sciences at the University of Oxford and is under the supervision of Professor Victoria Murphy. This project has been reviewed by, and received ethics clearance through, the University of Oxford Central University Research Ethics Committee and the researcher has full police clearance to work with children.

What if there is a problem?

If you have any questions or concerns about the study before deciding on participating please do not hesitate to contact the researcher or her supervisor. The researcher should acknowledge your concern within 10 working days and give you an indication of how he/she intends to deal with it. If you remain unhappy or wish to make a formal complaint, please contact the chair of the Research Ethics Committee at the University of Oxford (Chair, [Social Sciences and Humanities/Medical Sciences] Inter-Divisional Research Ethics Committee; Email: ethics@medsci.ox.ac.uk; Address: Research Services, University of Oxford, Wellington Square, Oxford OX1 2JD). The chair will seek to resolve the matter in a reasonably expeditious manner.

What should I do next?

If you agree to participate in this study please fill out the attached Consent Form and Opt-in Form and return it to your child's class teacher. At anytime would like to withdraw your child from the study you may do so by letting the researchers know of your decision. The study will not have any penalty for non-participation or withdrawal.

Yours sincerely,

Berke Andic
Candidate, MSc in Applied Linguistics and Second Language Acquisition
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15 Norham Gardens, Oxford OX2 6PY
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Appendix C – Consent Form

University of Oxford
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Tel: 07918 525 594
http://www.education.ox.ac.uk/research/applied-linguistics/r-e-a-l/

Study on Language Patterns Consent Form

Your child's school has agreed to take part in a study run by the University of Oxford looking at the language patterns bilinguals use. If your child takes part, a researcher will come and visit them at school and will ask them to do some language related tasks. If you are happy with your child taking part, please fill this form and return it to your child's class teacher as soon as possible. To find out more about the study please read the attached information sheet. You can also email the researcher Berke Andic at berke.andic@kellogg.ox.ac.uk or her supervisor Professor Victoria Murphy at victoria.murphy@kellogg.ox.ac.uk if you have any questions.

- I have read and understood the information sheet for the study, have had the opportunity to ask questions and am aware that I can contact the researcher if I have any further questions.
- I understand that participation in the research is voluntary and my child and I are free to withdraw at any time without giving any reason, and without my child's education being affected in any way.
- I understand that the data will be stored anonymously and will only be accessed by the researcher and her supervisor. I give permission for those individuals to have access to the information provided.
- I understand that this project has received ethics clearance from The University of Oxford's ethical approval process for research involving human participants.

I agree to my child and I to take part in the study.

Child's Forename-Surname _____ Date of Birth _____

Class Name/ Teacher _____

Parent/guardian Forename-Surname _____

Parent/Guardian signature _____ Date _____

Appendix D – Opt-out Form

University of Oxford
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Email:
berke.andic@kellogg.ox.ac.uk
Tel: 07918 525 594
http://www.education.ox.ac.uk/research/applied-linguistics/r-e-a-l/

Research in English as an Additional Language

Study on Language Patterns

OPT-OUT FORM

If you would **NOT** like your child to participate in the study, please fill in the form and return it to your child's teacher.

If you are happy with your child participating in the study, you do not have to fill in any part of this form.

I DO NOT want my child to take part in the study.

Child's forename-surname _____

Parent/Guardian/Carer's forename-surname _____

Parent/Guardian/Carer's Signature _____

Date _____

Appendix E – Home Language Questionnaire

University of Oxford
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http://www.education.ox.ac.uk/research/applied-linguistics/r-e-a-l/

Home Language Questionnaire

Child's Name: _____
Child's Date of Birth (day/month/year): _____
Which languages are spoken at home? _____
Who lives in the household? (Tick boxes as appropriate)
Caregiver 1/ Mother
Caregiver 2/ Father
Brothers Number of brothers _____
Sisters Number of sisters _____
Other Please specify _____

INTERPERSONAL INTERACTION (Section A)

Please tick/fill the option that applies most	Always/ Mostly English	English and First Language Equally	Mostly First Language	Other (Please specify)
A1. Which language does Caregiver 1/ Mother speak at home?				
A2. Which language does Caregiver 2/ Father speak at home?				
A3. Which language does your child use when interacting with Caregiver 1?				
A4. Which language does your child use when interacting with Caregiver 2?				

A5. Which language does your child use when interacting with brother(s)?				
A6. Which language does your child use when interacting with sister(s)?				
(If you have reported that your child interacts with other adults/members of the family in the household please answer question A7. If not go to question A8)				
A7. Which language does your child use when interacting with other adults/members of the family in the household?				
A8. Overall, which language is mostly used in the house?				
A9. Are there any other children in your child's school who speak Turkish?			Yes	No
(If 'Yes', complete question A9a. If 'No' go to question A10)				
A9a. To your knowledge, which language does your child use when playing-interacting with these children at school?				
A10. Are there any other children outside of the family and school that your child plays-interacts with who speak Turkish?			Yes	No
(If 'Yes' complete question A10a and A10b. If 'No' go to question A11)				
A10a. To your knowledge, which language does your child use when playing-interacting with other Turkish-speaking children outside of the family and school?				
(If you have reported that your child has any other siblings please answer questions A5 and/or A6. If not go to question A7.)				

A10b. How often does your child spend time with other Turkish-speaking children outside of the family and school?

i. More than once a week
ii. Once a week
iii. Once a month or more
iv. Less than once a month
v. Other _____

A11. How many years have you and your family been living in the UK? _____

A12. Was your child born in the UK? Yes_____No_____

(If 'No' complete questions A12a and A12b. If 'Yes' go to question A13)
A12a. Where was your child born? _____
A12b. How many years did they spend in that country before coming to the UK? _____
A13. Did your child start his/her education in the UK? Yes____ No_____
(If 'No' complete question A13a. If 'Yes' go to Section B)
A13a. Where did your child start his/her education? _____
A13b. Which grades/years did he/she complete there? _____

NON-ENGLISH LITERACY (Section B)
B1. Is your child learning to read in Turkish? Yes_____ No_____
(If 'Yes' complete questions E1a and E1b. If 'No' go to Section C)

B1a. Who is teaching your child to read?
- i. Teacher
- ii. Family member
- iii. Non-family member who comes to the home
- iv. Other (provide explanation) _____

B1b. How often is your child taught?
- i. More than once a week
- ii. Once a week
- iii. Once a month or more
- iv. Less than once a month

LANGUAGE INTERACTION AND ABILITIES (Section C)
C1. Please tick or fill in the tables according to the activities you do with your child. Please write how often you or your child (on their own) engages in these activities per week.

	ESTIMATED TIME PER WEEK				
ACTIVITY	Everyday	2-4 Days	Once	Never	Other
C1a. Reading in English (books, magazines, religious books, comics, newspapers etc.)					
C1b. Reading in Turkish (books, magazines, religious books, comics, newspapers etc.)					
C1c. Storytelling in English					
C1d. Storytelling in Turkish					
C1e. Writing in English					
C1f. Writing in Turkish					

C1g. Other activities (please specify)

C2. How often does your child use Turkish for the following activities?

	Never	Rarely	Occasionally	Sometimes	Frequently	Very Frequently	Always
C2a. Counting							
C2b. Reasoning							
C2c. Expressing emotions							

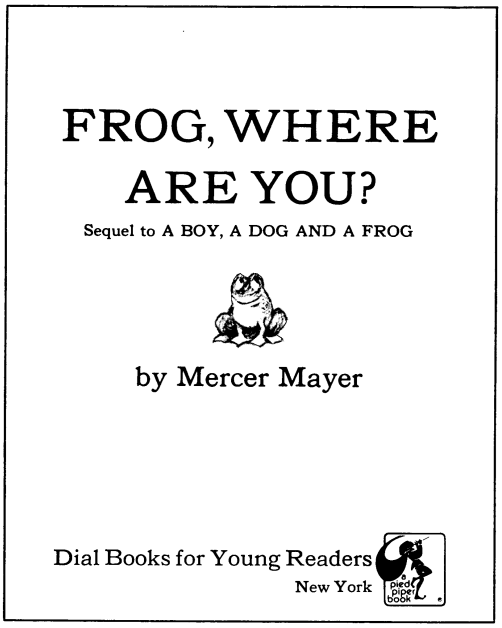
C3. In terms of language, compared to your child's peers who speak Turkish, how well do you think your child;

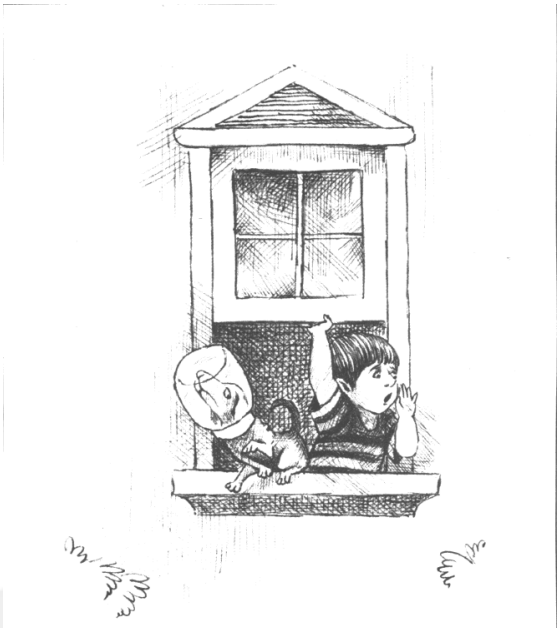
	Not very clear/well	Sometimes not clear/well	Same	Most of the time clear/well	Very clear/well
C3a. Expresses him/herself					
C3b. Pronounces words					
C3c. Reads out loud					
C3d. Produces correct sentences					
C3d1. In terms of grammar					
C3d2. In terms of vocabulary					
C3d3. In terms of complexity					

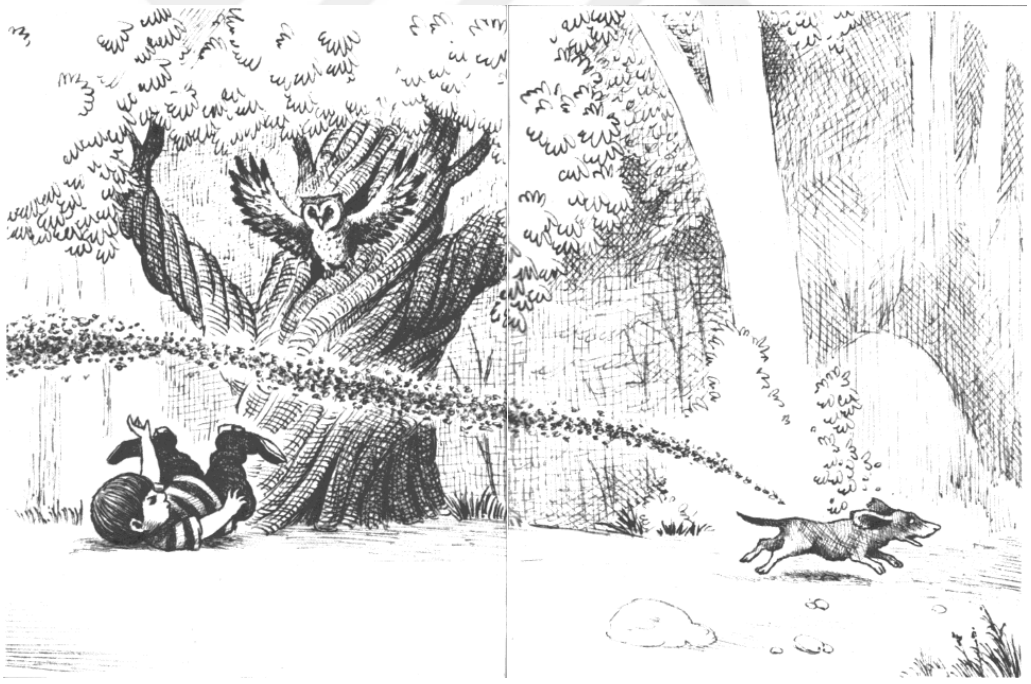
ADDITIONAL COMMENTS (Section D)

D1. Is there anything else you would like to add that you feel is interesting about your child's language background or language use that has not been mentioned here?

Appendix F – Story Used for Narratives: *Frog, Where Are You?* (Mayer, 1969)

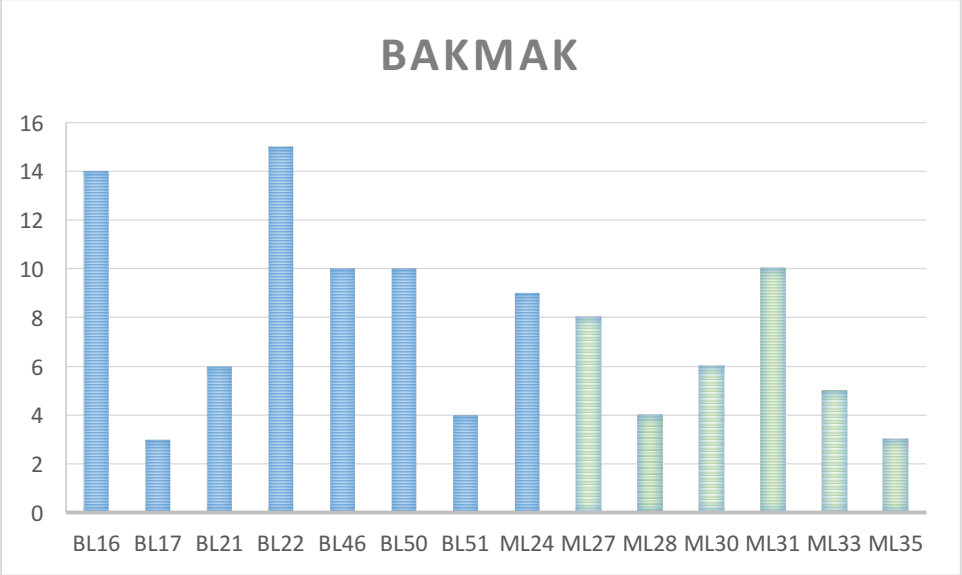




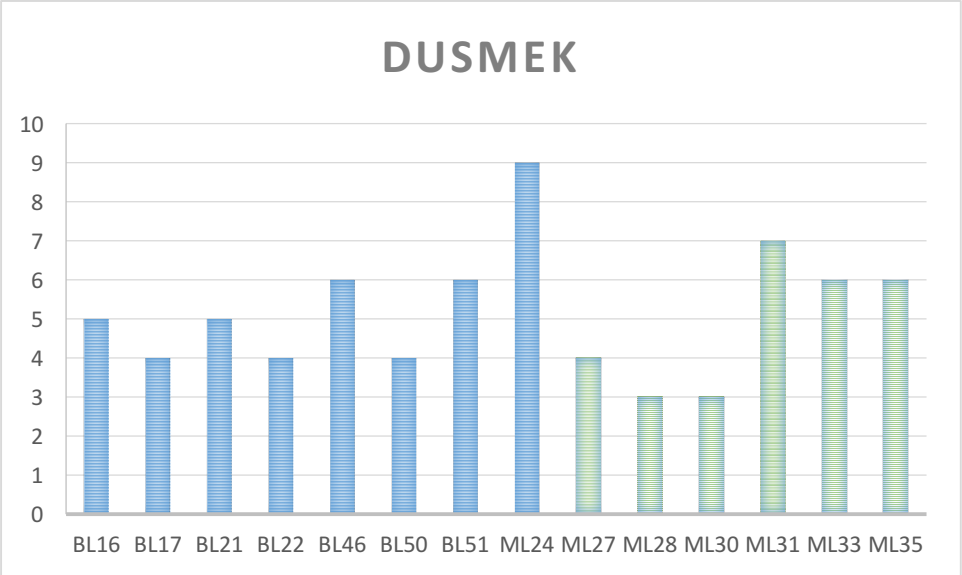


Appendix G – Participants' Word Frequencies for Individual Verbs (N=35)

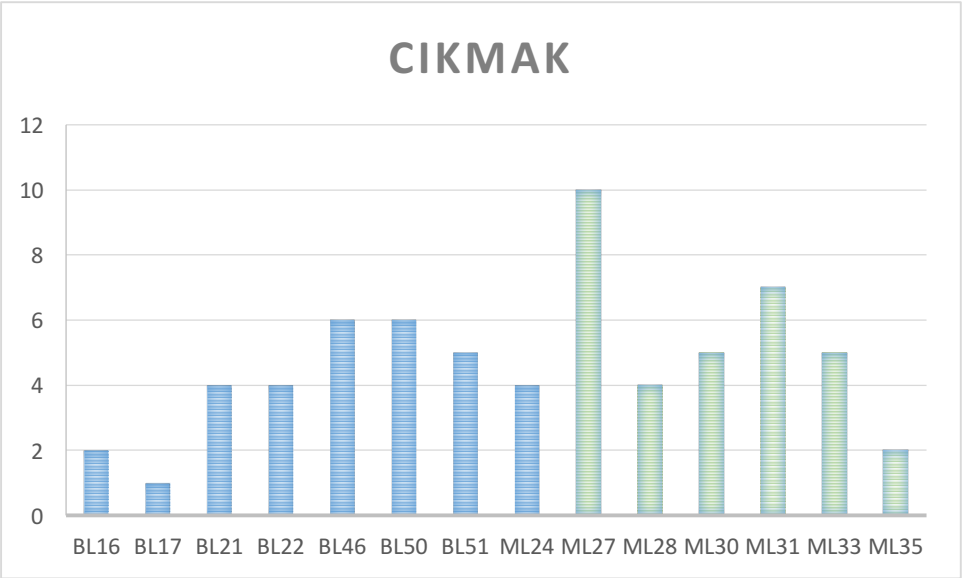
Bakmak- To look



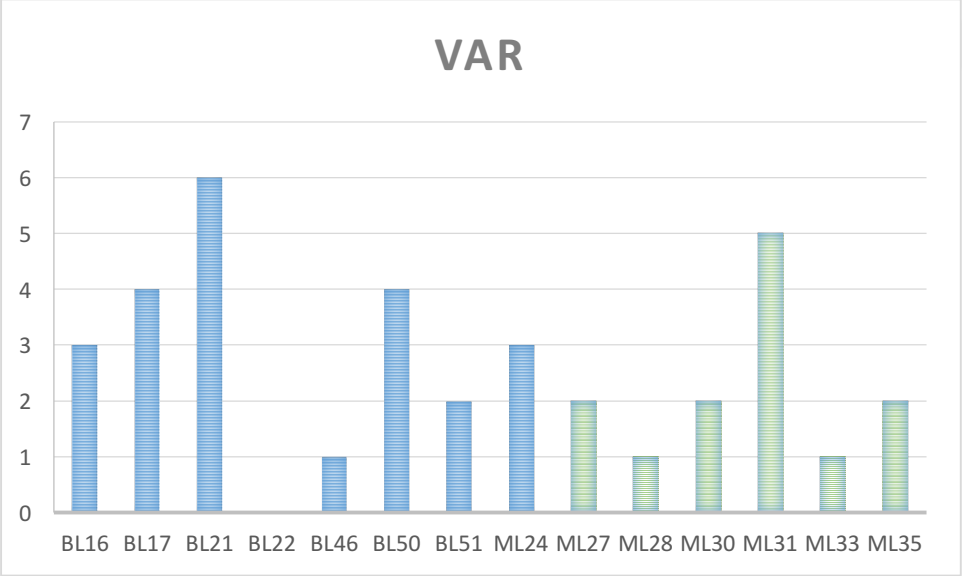
Düşmek- To fall



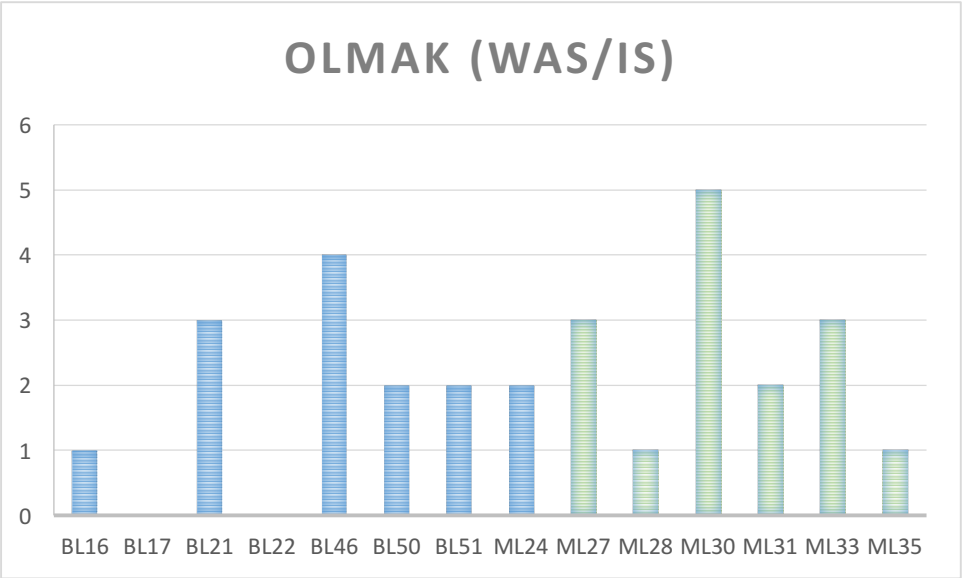
Çıkmak- To get out



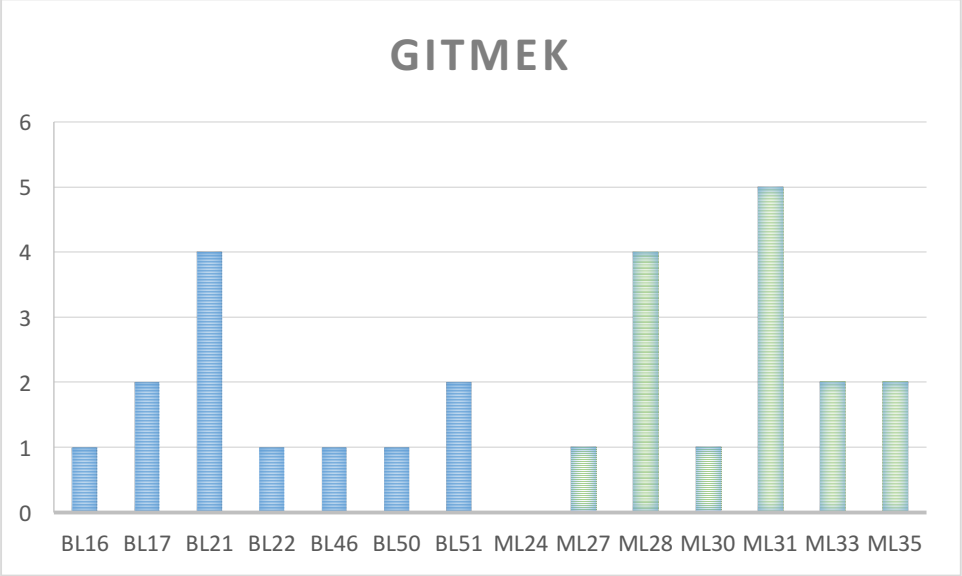
Var- (there) Is



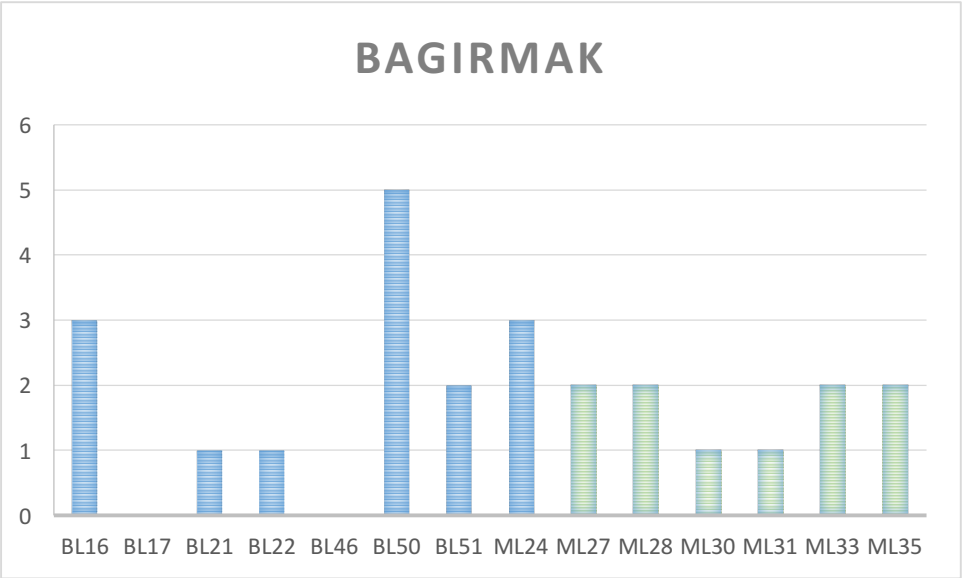
Olmak- To be



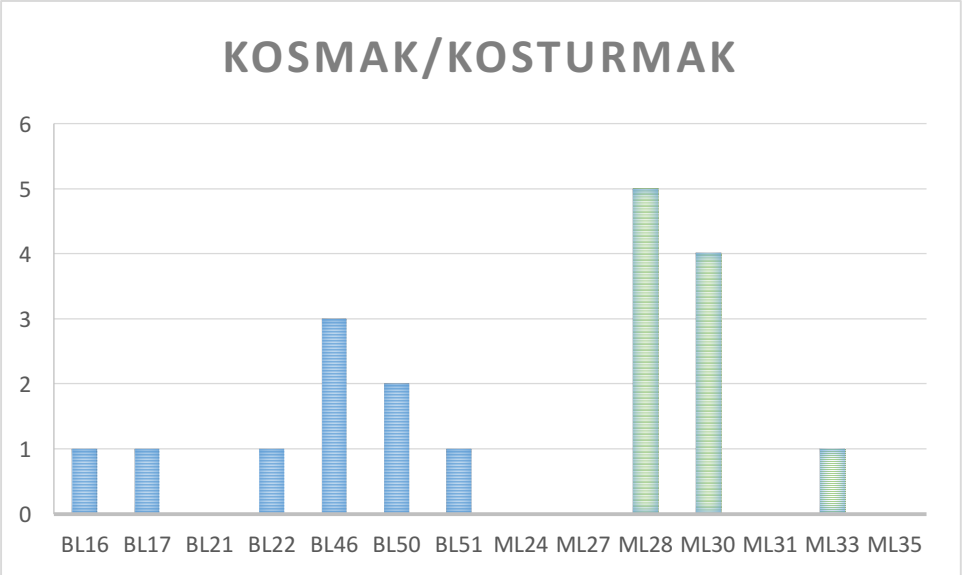
Gitmek- To go



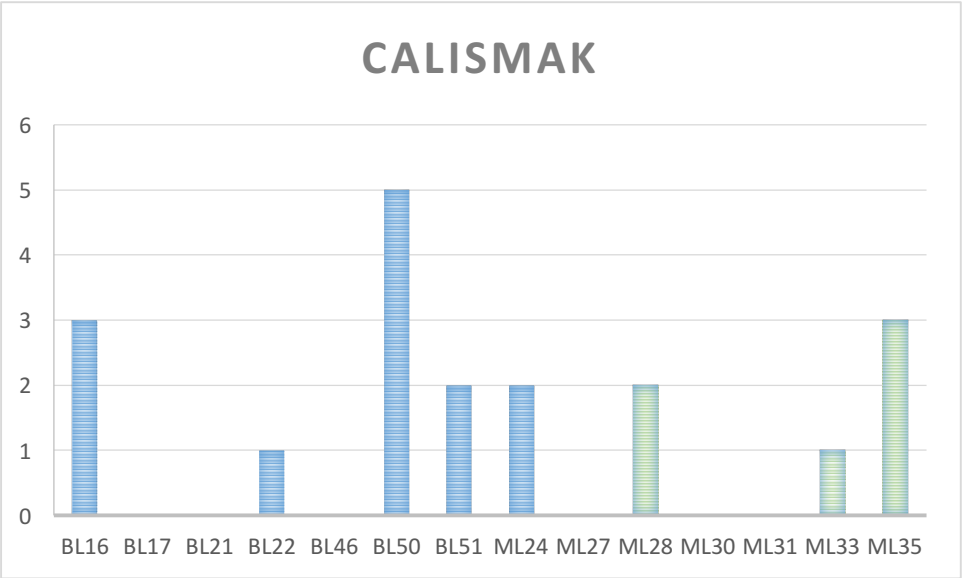
Bağırmak- To shout



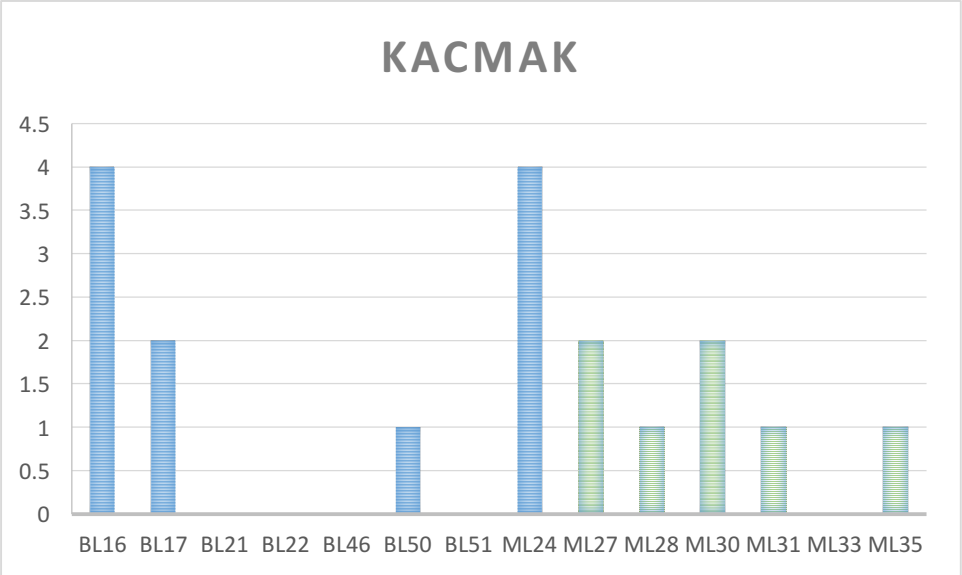
Koşmak- To run



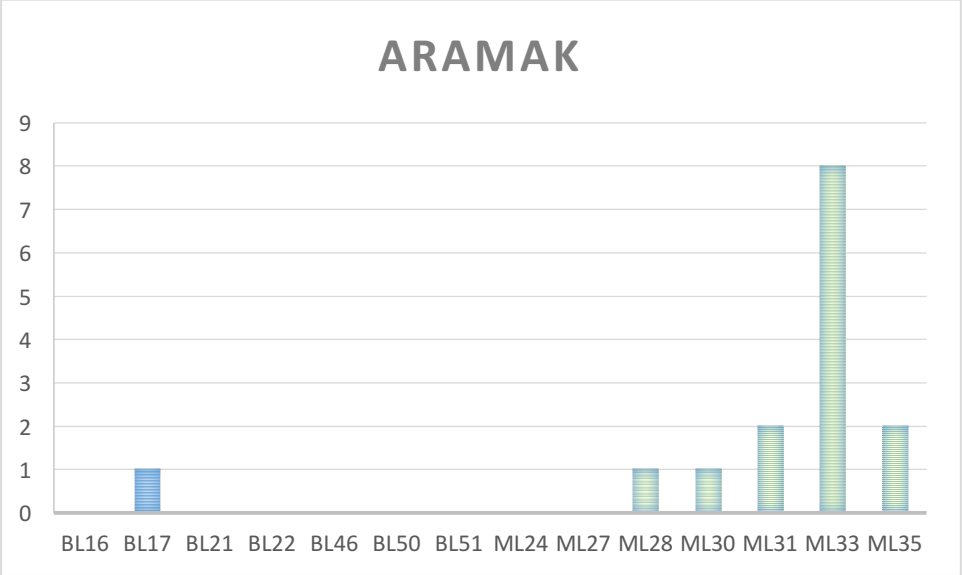
Çalışmak- To try



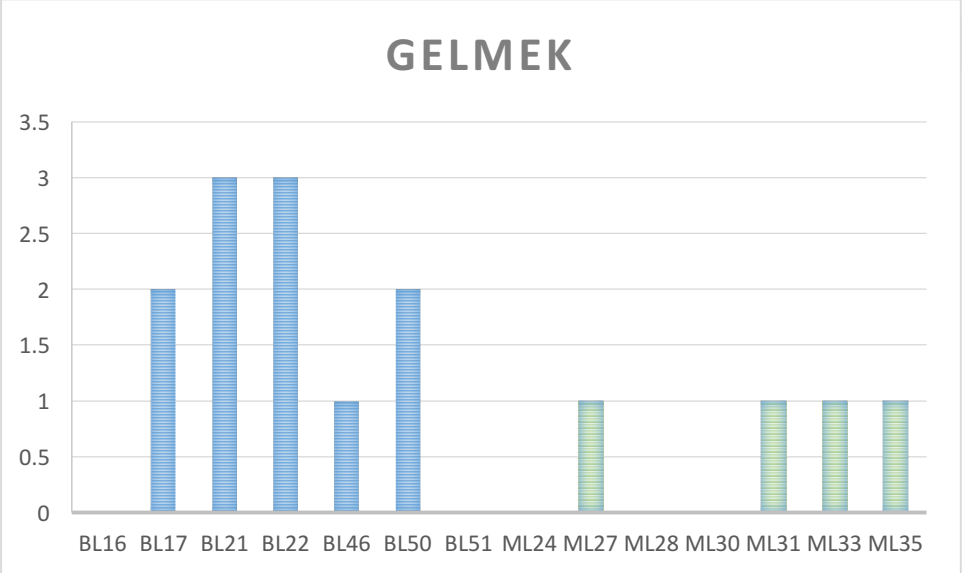
Kaçmak- To run away from



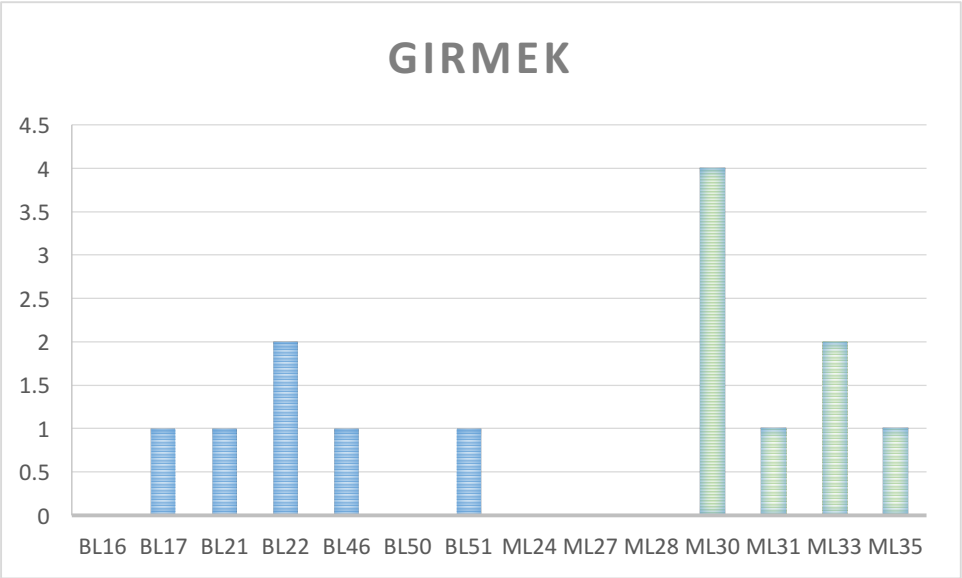
Aramak- To search



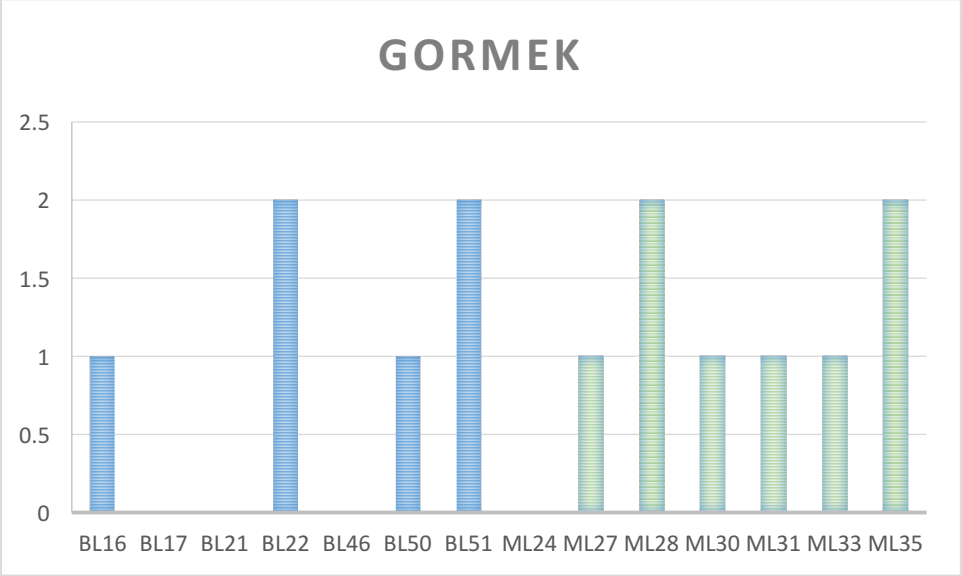
Gelmek- To come



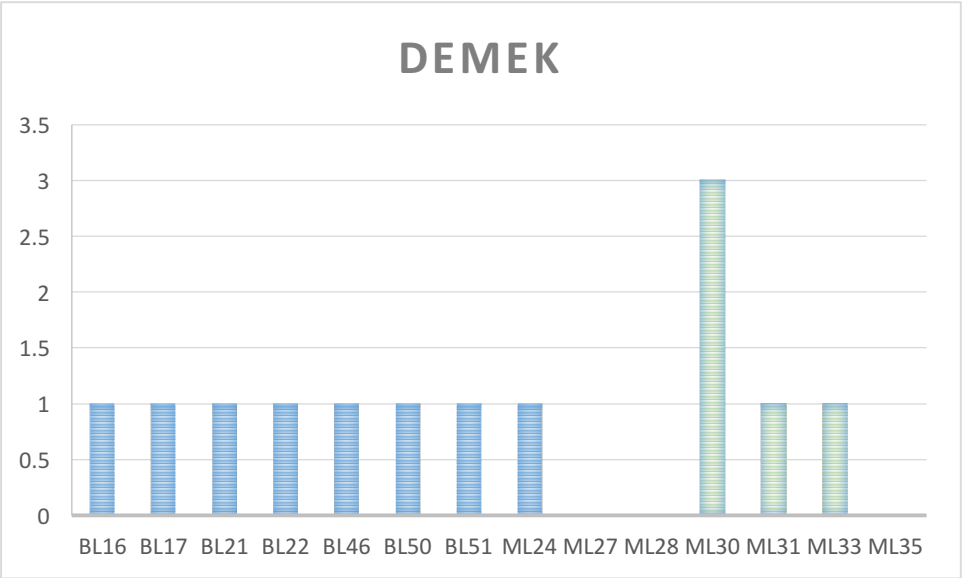
Girmek- To go in



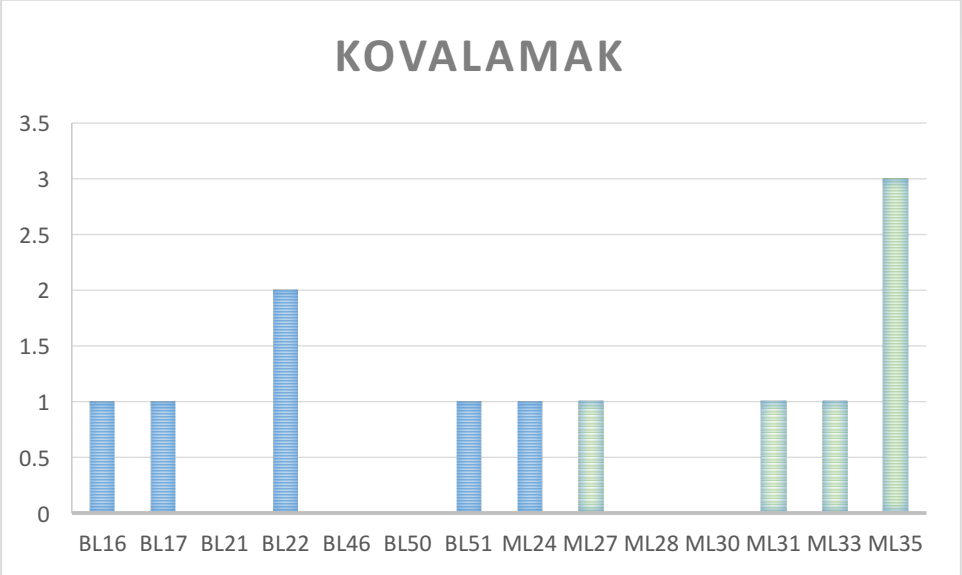
Görmek- To see



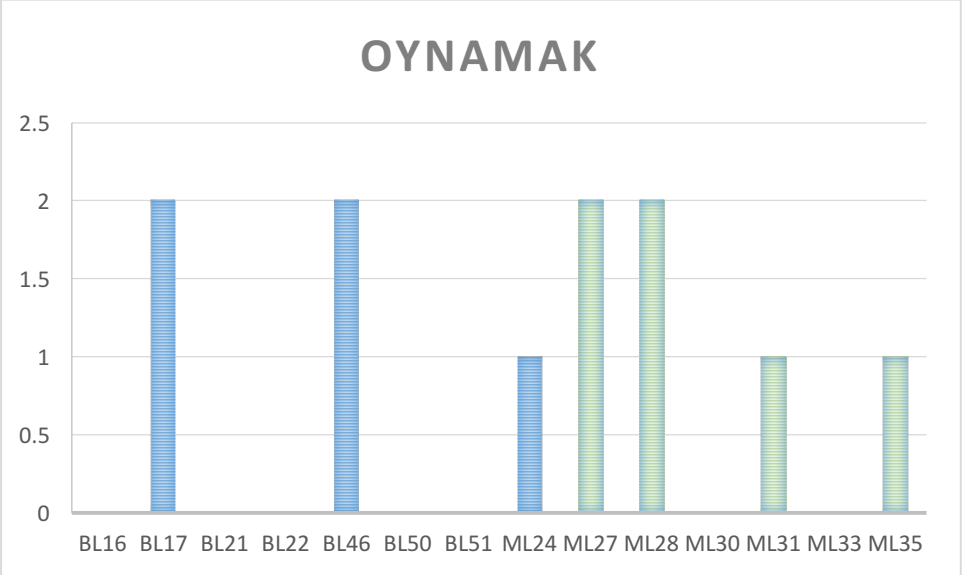
Demek- To say



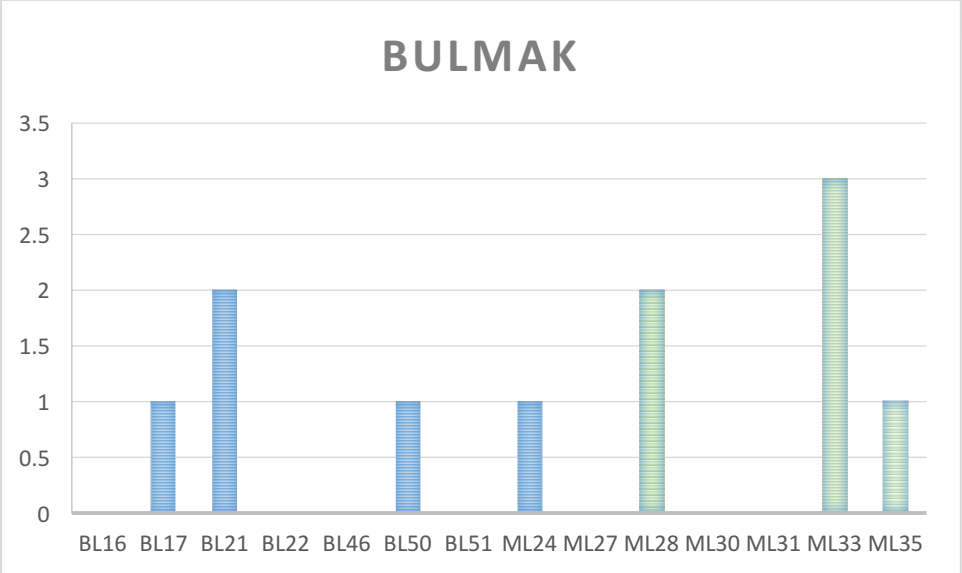
Kovalamak- To chase



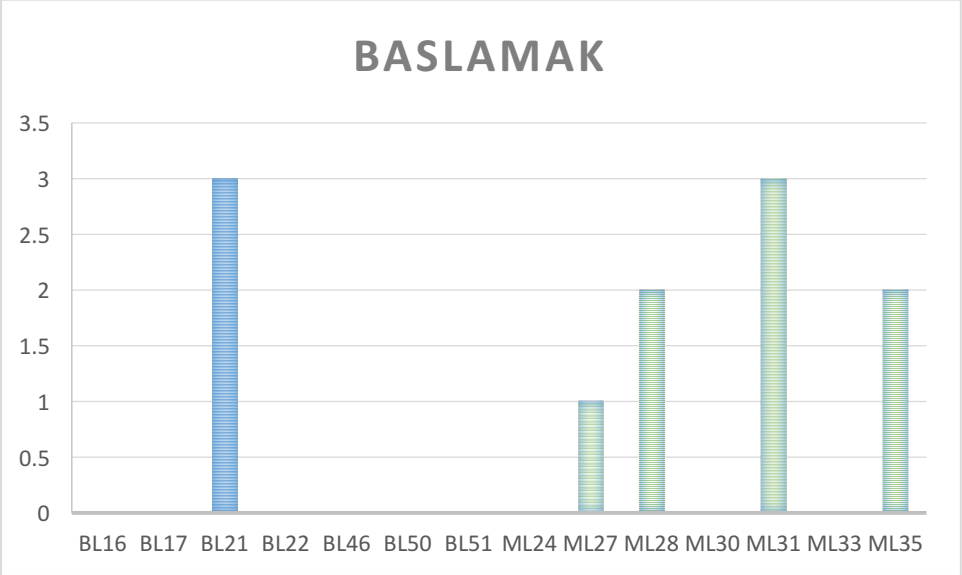
Oynamak- To play



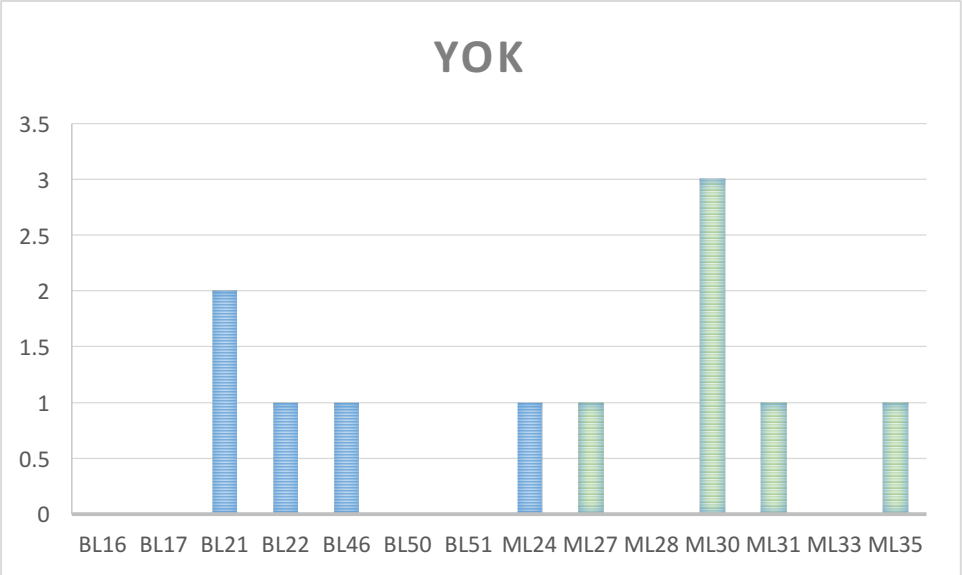
Bulmak- To find



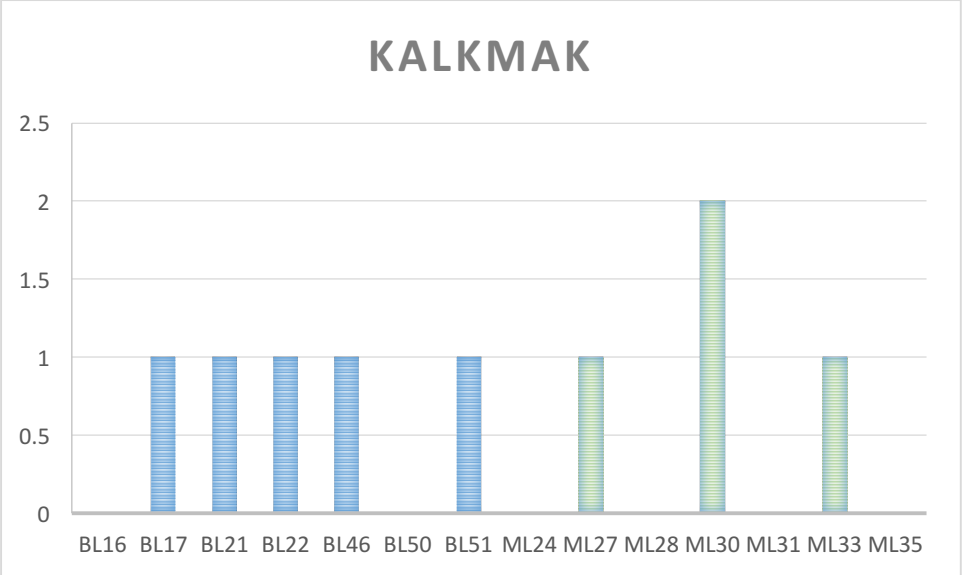
Baslamak- To start



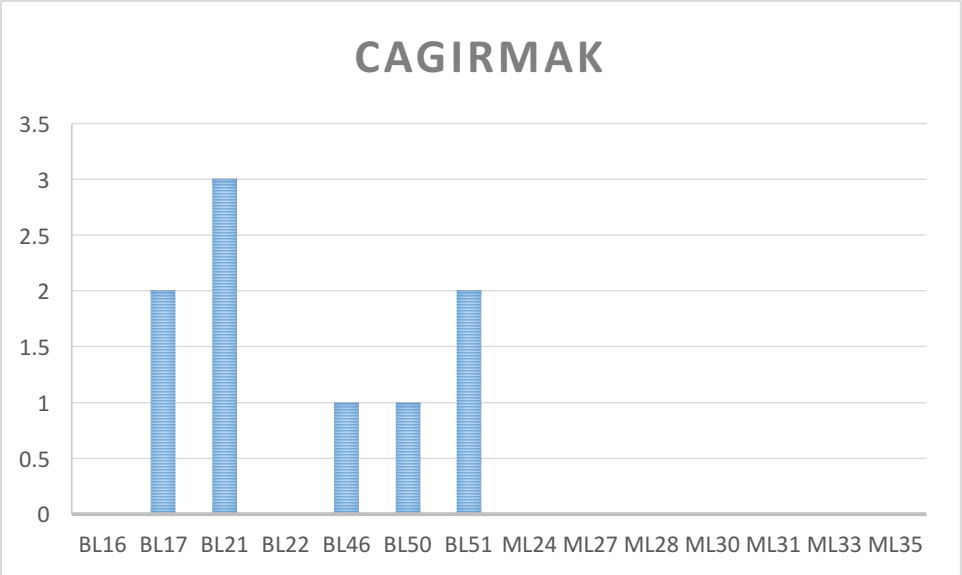
Yok- (there) Is not



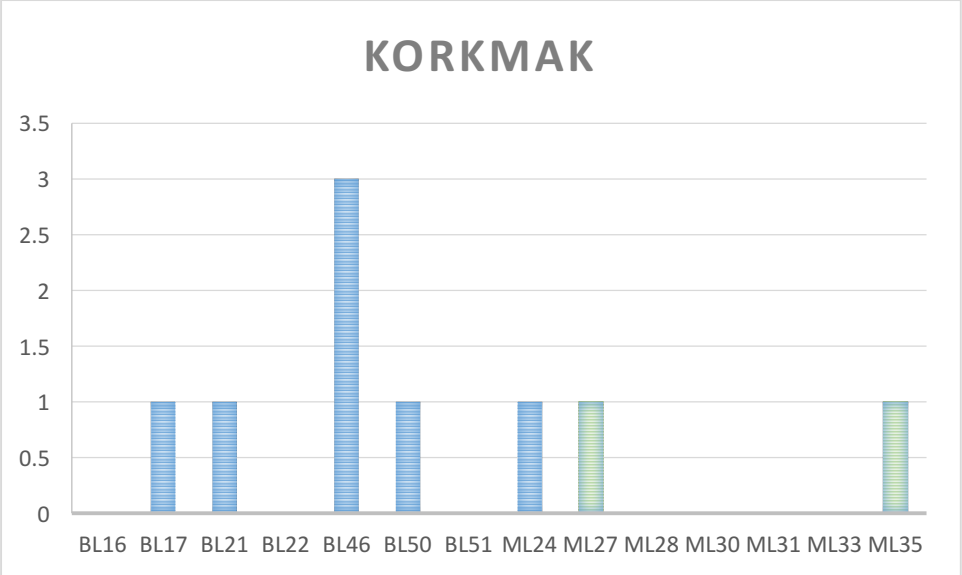
Kalkmak- To get up



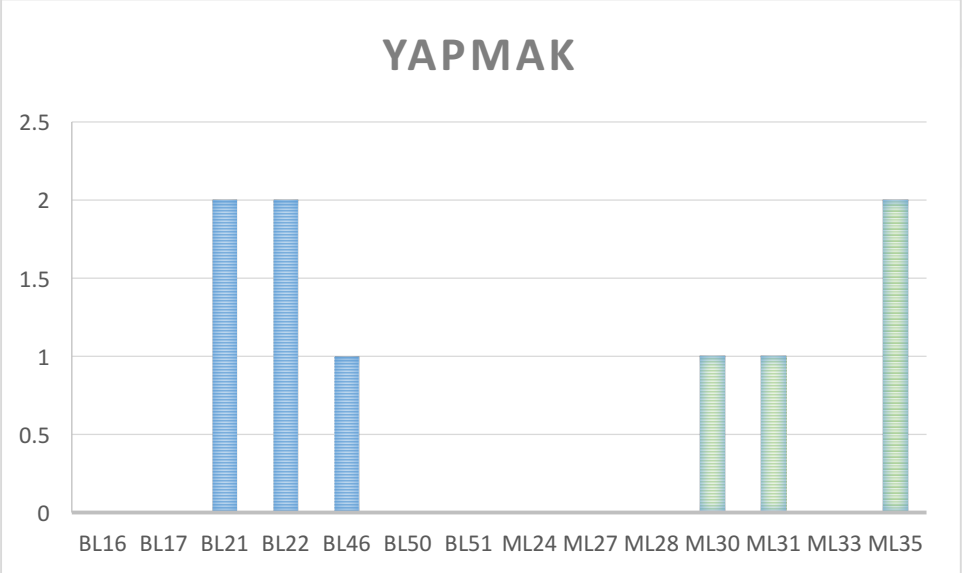
Çağırmak- To call



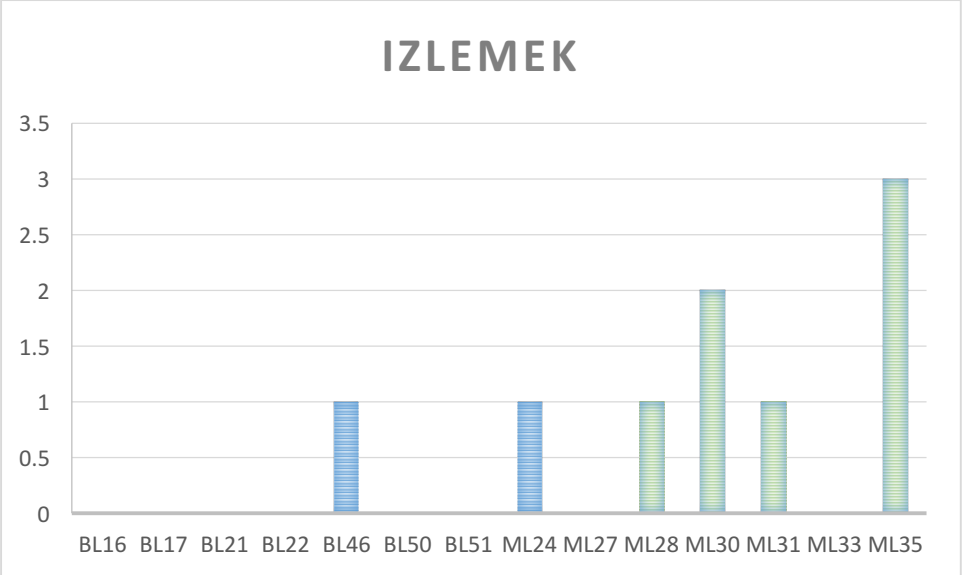
Korkmak- To be scared



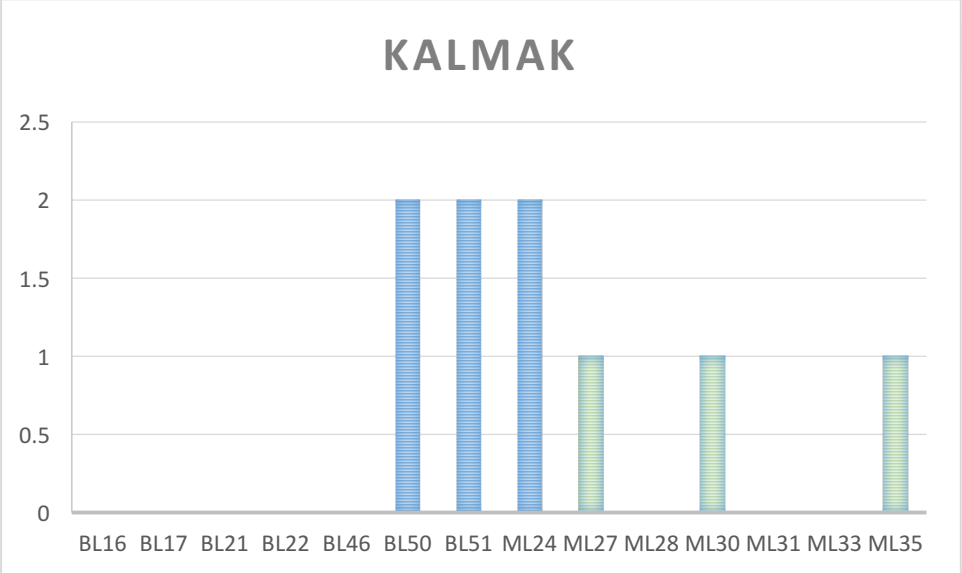
Yapmak- To do



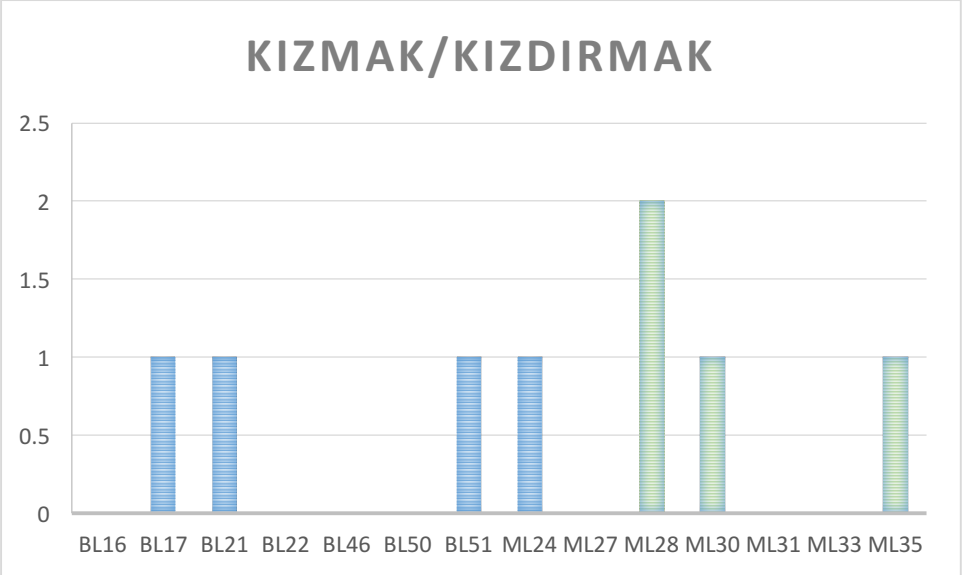
Izlemek- To watch



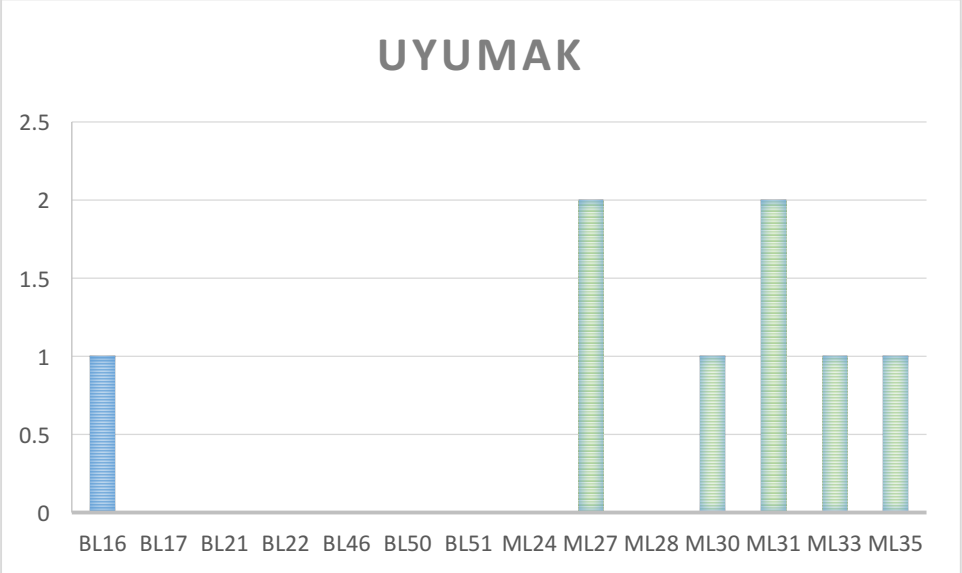
Kalkmak- To get up



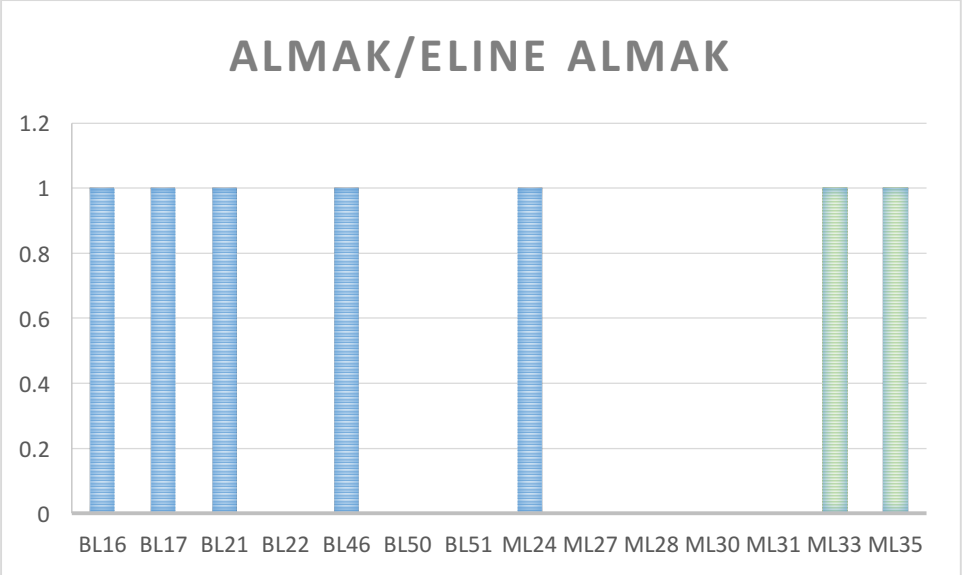
Kızmak/Kızdırmak- To be angry/To get somebody angry



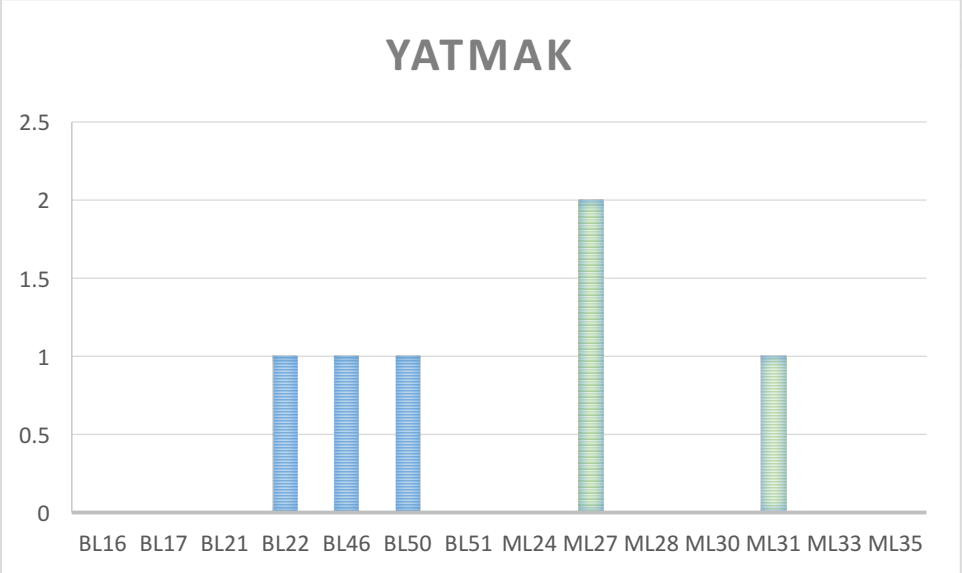
Uyumak- To sleep



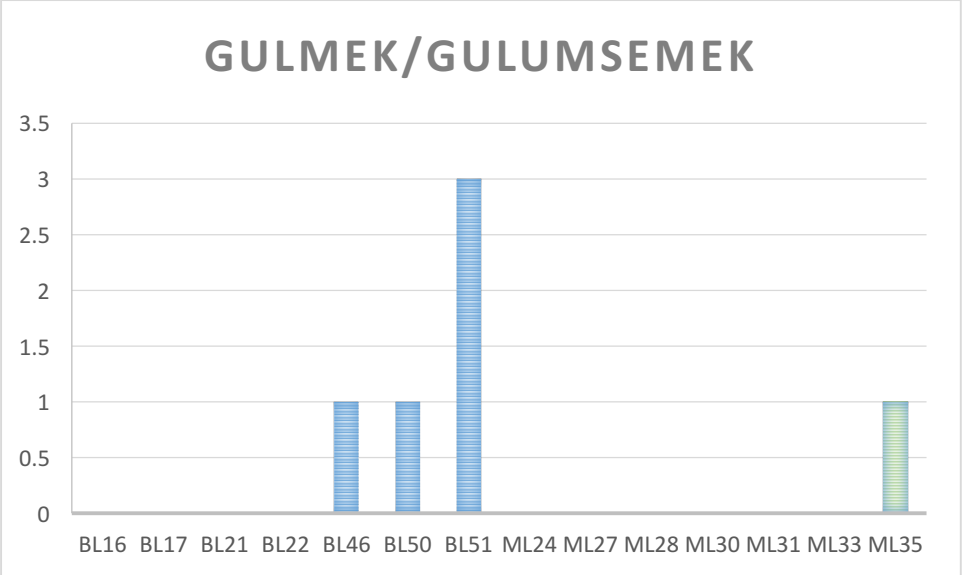
Almak/Eline Almak- To take/to hold



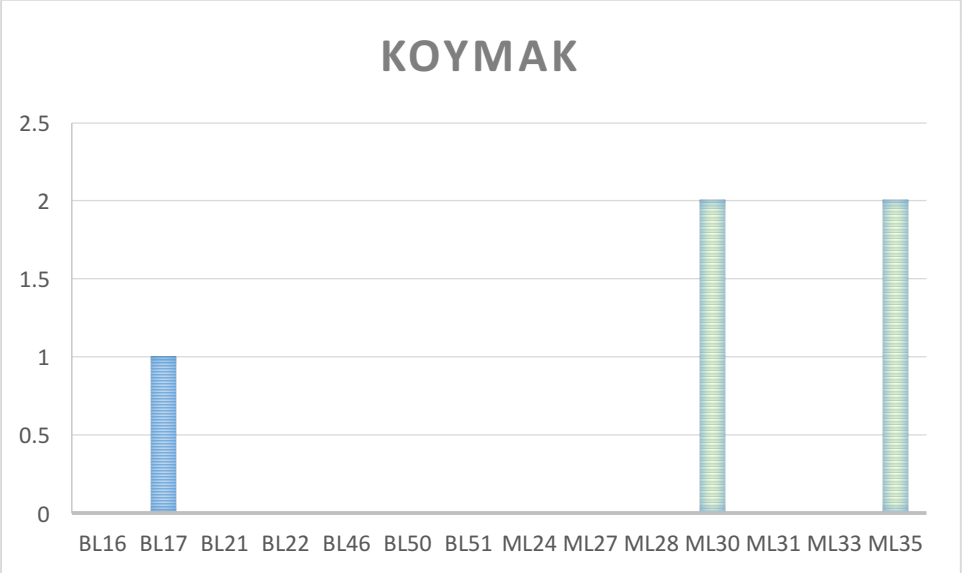
Yatmak- To lie down



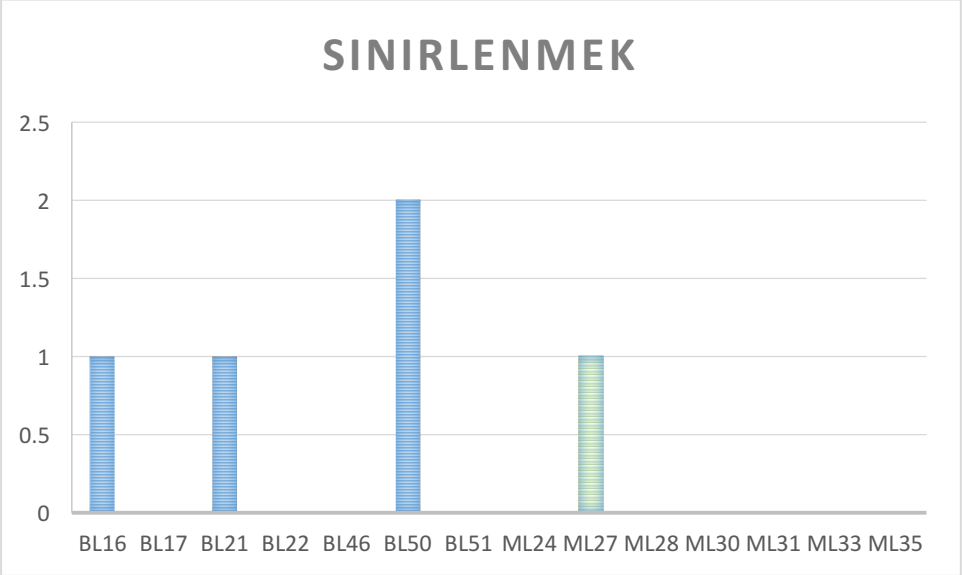
Gülmek- To laugh



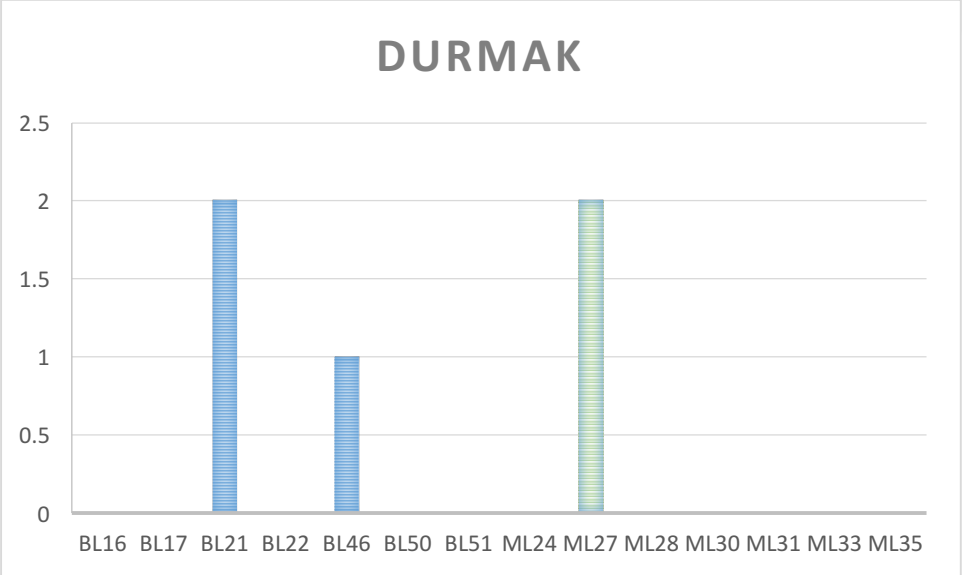
Koymak- To put



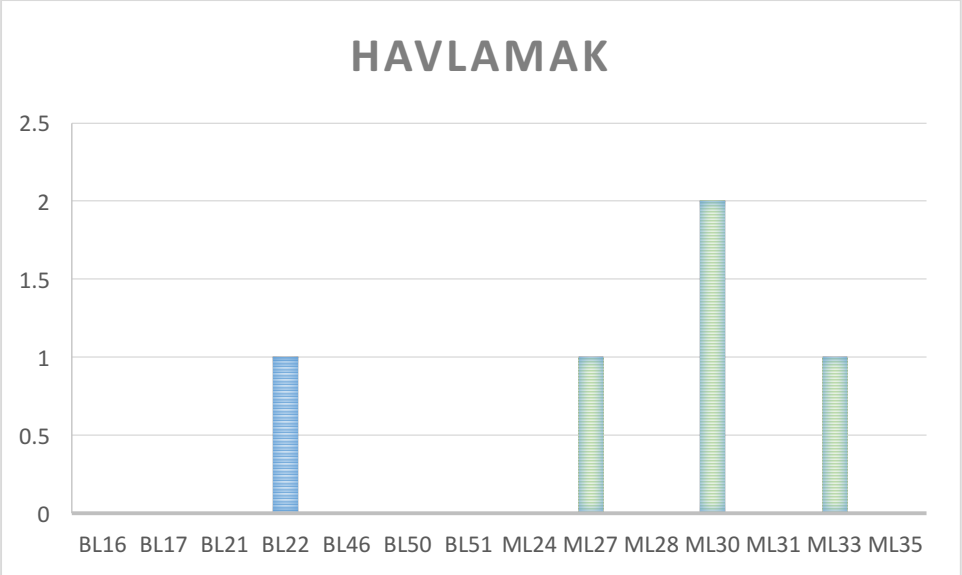
Sinirlenmek- To get angry



Durmak- To stop



Havlamak- To bark



Appendix H –CUREC Approval

Inbox 18 March 2015 07:09

Dear Berke,

Formal note of

Application Approval

Title: ***Exploring patterns of language use in Turkish-English bilinguals' perception of grammar***

The above application has been considered on behalf of the Departmental Research Ethics Committee (DREC) in accordance with the procedures laid down by the University for ethical approval of all research involving human participants.

I am pleased to inform you that, on the basis of the information provided to DREC, the proposed research has been judged as meeting appropriate ethical standards, and accordingly, approval has been granted.

If your research involves participants whose ability to give free and informed consent is in question (this includes those under 18 and vulnerable adults), then it is advisable to read the following NSPCC professional reporting requirements for cases of suspected abuse http://www.nspcc.org.uk/globalassets/documents/information-service/factsheet-child-abuse-reporting-requirements-professionals.pdf Should there be any subsequent changes to the project which raise ethical issues not covered in the original application you should submit details to research.office@education.ox.ac.uk for consideration.

Good luck with your research study.

Yours sincerely

Liam

Dr Liam Francis Gearon
Associate Professor
Department of Education
Senior Research Fellow
Harris Manchester College
University of Oxford

Appendix I –Notification of Title

UNIVERSITY OF OXFORD
DEPARTMENT OF EDUCATION

Notification of Title Form

All MSc Students

Please provide the proposed title for your dissertation below, approved by your supervisor, and return this form **electronically** to the Higher Degrees Office by the end of **Week 8, Hilary Term.**

Once the title has been approved, any further changes must be notified using form for Application for Change of Thesis Title. You may not submit change of thesis titles later than 1st of August.

NAME OF STUDENT:	Berke Andic
NAME OF SUPERVISOR:	Victoria Murphy
COURSE:	ALSLA
TITLE OF DISSERTATION: Exploring patterns of language use in Turkish-English bilinguals' perception of grammar	
KEY METHOD OF DATA COLLECTION Questionnaire - Narratives - Grammaticalty Judgement Test	
SUPERVISOR APPROVAL Please check this box to confirm you have discussed this title with your supervisor and received his/her approval for it: ☒	

Appendix J –Change of Title

UNIVERSITY OF OXFORD
DEPARTMENT OF EDUCATION

Notification of Change of Title Form

All MSc Students

Please submit this form **electronically** to the Higher Degrees Office. Please do not submit it later than the 1st of August, or it will not be accepted.

NAME OF STUDENT:	Berke Andic
CANDIDATE NUMBER:	327662
NAME OF SUPERVISOR:	Victoria Murphy
COURSE:	ALSLA
PREVIOUS DISSERTATION TITLE: Exploring patterns of language use in Turkish-English bilinguals' perception of grammar	
PROPOSED NEW TITLE: Exploring patterns of language use in Turkish-English bilinguals	
SUPERVISOR APPROVAL Please check this box to confirm you have discussed this title with your supervisor and received his/her approval for it: ☒	