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A STUDY ON ACADEMIC TURKISH VOCABULARY

■ Mustafa DOLMACI

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Foreword

This book was derived from the doctoral dissertation entitled “A Corpus Study of Academic Turkish Vocabulary: Implications for Teaching Turkish as a Foreign Language” by Dolmaci, M. (2015) at Gazi University Graduate School of Educational Sciences.

Vocabulary knowledge is solid bedrock, upon which other language skills can be built. Wilkins (1972) asserted that “without grammar very little can be conveyed, without vocabulary nothing can be conveyed” (p. 111). Therefore, this study focuses on academic Turkish vocabulary and also aims to investigate the basic vocabulary that any Turkish language learner should have before starting to learn academic vocabulary. First, *the General Turkish Wordlist* containing 2000 words was developed. Second, *The Academic Corpus* derived from undergraduate textbooks and *the Academic Turkish Wordlist* containing 1010 words developed from *the Academic Corpus* were acquired. Third, *the Academic Vocabulary Test* was developed utilizing *the Academic Corpus* and *the Academic Wordlist*. *The Academic Vocabulary Test* was answered by 196 students learning Turkish at the Turkish Teaching Centers offering Turkish as the medium of instruction. Lastly, 41 undergraduate non-native Turkish students studying at universities offering Turkish medium instruction were interviewed in order to discover opinions of foreign students on their knowledge of academic Turkish vocabulary and the qualitative data from interviews was analyzed to elaborate the opinions of the participants. The results showed that 1) the first 1000 words of *the General Turkish Wordlist* covered nearly half of the corpus it was generated from, 2) *the Academic Turkish Wordlist* covered nearly one third of *the Academic Corpus*, so it should be included in academic Turkish courses, 3) the overall vocabulary knowledge level of the participants regarding *the Academic Corpus* was low for *the sufficient comprehension level* (Hu & Nation, 2000), 4) Although, students are more or less successful in communicating through Turkish language in and out of the classroom atmosphere, their problems regarding being a student studying at a university with Turkish as the medium of instruction mainly result from having a low mastery of Turkish and from psychological or individual factors. This study is unique since it is the first research study suggesting *the Academic Turkish Wordlist* in the field of Turkish for academic purposes.

Definitions of Some Key Concepts

Corpus: A corpus is a body of written text or transcribed speech which can serve as a basis for linguistic analysis and description (Kennedy, 1998, p. 1).

Academic Corpus: A corpus derived from journal articles, book chapters, textbooks, laboratory manuals, and course notes that are representative of the academic genre and written for an academic audience.

The General Turkish Wordlist: The list of most frequent 2000 Turkish words (lemmas) that includes the basic vocabulary that any learner should have. In this study, the General Turkish Wordlist was developed from the most frequent 11000 words of the Turkish National Corpus (Aksan et al. 2012).

The Academic Turkish Wordlist: The first academic Turkish wordlist developed from the Academic Turkish Corpus compiled from Turkish undergraduate textbooks in this study.

Token: Token is a “word” within a corpus. It is used most often to talk about word count and the size of a corpus (Tang, 2015).

Type: A unique word form in a corpus. Types are placed in a word list arranged most often in order of frequency or alphabetical order, and usually shown with frequency count (Tang, 2015).

Lemma: “A set of lexical forms having the same stem and belonging to the same major word class, differing only in inflection and/or spelling” (Francis & Kucera, 1982:1)

Word Family: “A word family is defined as the base form of a word plus its inflected forms (third person –s, -ed, -ing, plural –s, possessive –s, comparative –er, and superlative –est) plus derived forms made from certain uses of the following affixes (-able, -er, -ish, -less, -ly, -ness, -th, -y, non-, un-, -al, -ation, -ess, -ful, -ism, -ist, -ity, -ize, -ment, in-)” (Hirsh & Nation, 1992, p.692). Inflected and regularly derived forms of a known base word are thought to be known words if the learners have a good knowledge of the affixes.

Textbook: A book used as a standard work for the study of a subject. They are generally produced according to the demands of educational institutions. In the current study, “textbook” refers to the books that have been written to be used at the undergraduate programs.

Coursebook: A Coursebook is a book that is printed for the use of students and teachers as they study a particular subject and it is the primary classroom material in many foreign language classrooms.

INTRODUCTION

Since the pioneering research of Michael West (1953), in which he presented a list of roughly 2000 words called The General Service List (GSL), there have been many attempts to make up different corpora like the British National Corpus, Corpus of Contemporary American English, Bank of English or Australian Corpus of English. Similarly, many academic or general wordlists have been published in English or in other languages (Academic Vocabulary List [Gardner & Davies, 2013], Academic Wordlist [Coxhead, 2000], New General Service List [Browne, 2014]). On the other hand, the lack of a Turkish General and Academic Wordlists which meet the academic criteria such as being collected from a valid corpus has made this research necessary in the field of teaching Turkish as a foreign language.

In consideration of the things mentioned above, the purpose of the present study is to form a General Turkish Wordlist (GTW) and an Academic Turkish Wordlist (ATW) from an academic corpus which has been made up from university textbooks and to discover whether foreign students learning Turkish in order to study at undergraduate and graduate programs in Turkey need academic vocabulary support in order to fully pursue their courses in Turkish.

Compared to Teaching English as a Foreign Language (TEFL), Teaching Turkish as a Foreign Language (TTFL) is on the bottom rung of the ladder, and Çakır's (1989) dissertation was the first phd study on teaching of Turkish as a foreign language. Karababa (2009) points out that the most important problem in TTFL is the inadequate curricula and studies and states that in order to solve this problem, there is a need for a suitable curriculum and books and materials prepared in accord with this curriculum and the level of the students. This situation is more crucial when teaching Academic Turkish is addressed due to the lack of sufficient course materials in terms of teaching Academic Turkish.

Brown (2001) identified language for academic purposes as a term "that is very broadly applied to any course, module, or workshop in which students are taught to deal with academically related language and subject matter" (p. 123) and it aims to raise the learners to a point where they are capable of getting the most out of their coming course of study (Scrivener, 2011, p. 315).

Vocabulary knowledge allows students to use the language, and language use fosters the increase of vocabulary knowledge. While it is a known fact that vocabulary knowledge helps learners in every language skill act effectively, it should not be forgotten that having sufficient vocabulary does not make everything a piece of cake (Nation & Waring, 1997).

Foreign language learners already have the concepts in their minds and are able to produce these concepts using their mother tongue. Learners have great difficulty in expressing these concepts or ideas in another language mainly because of the linguistic structure of the target language. Knowing the equivalents of utterances in the target language is a prerequisite followed by presenting them using the appropriate grammar form, and vocabulary learning is seen as the most important and time consuming activity by language learners although it is only one component of language skills.

Currently, descriptive analyses of corpora largely inform not only vocabulary teaching, which is a prominent part of language teaching, but also teaching materials such as coursebooks, which are the main source of foreign language teaching courses. Moreover, language learners, teachers and also coursebook writers need a comprehensive and authentic language database to present information in addition to what they could gather from reference books. At this point, a well prepared corpus could help them with its frequency list or concordance outputs.

According to Hu and Nation (2000), the minimum amount of vocabulary coverage for a comprehensible reading of a text is clearly above 80%. Furthermore, if the percentage of known words in a text is 98%, comprehension and incidental vocabulary learning through reading are likely to increase (Nation, 2001).

The problem of this research is whether the vocabulary instruction applied in Turkish Teaching Centers (TTC) of universities in Turkey is efficient enough for students who have learned Turkish as a foreign language to study at universities offering Turkish courses. In line with this situation, another question arises: What is the general Turkish vocabulary wordlist that should be aimed for a general Turkish course and what is the academic Turkish wordlist that students need to acquire for their undergraduate programs?

There were three coursebooks used at the Turkish Teaching Centers of universities, where the Academic Vocabulary Test made up from the Academic Turkish Wordlist (created in the current study) was administrated. These coursebooks were: 1) İstanbul Üniversitesi Dil Merkezi İstanbul Seti (İstanbul Series), 2) Gazi Üniversitesi TÖMER Yabancılar İçin Türkçe Seti (Gazi Series), 3) Ankara Üniversitesi TÖMER Yeni Hitit Yabancılar İçin Türkçe Öğretim Seti (Ankara New Hitit Series). It is automatically assumed that these coursebooks would provide enough input for the students in order to follow their courses in Turkish at the universities in Turkey and to use Turkish for general purposes. Although these coursebooks are not intended

for academic purposes, it is important to find out their usefulness on university education since most of the students learning Turkish as a foreign language at Turkish Teaching Centers aim to study at Turkish Universities which offer Turkish medium instruction. These coursebooks are supposed to prepare students for academic studies because students complete the C1 level (Effective Operational Proficiency) before they finish their courses. According to Common European Framework (Council of Europe, 2001), a student who is at the C1 level “can use language flexibly and effectively for social, academic and professional purposes” (p. 24) Therefore, another question is how much ready these students are for their undergraduate programs in terms of vocabulary knowledge.

The current study is significant for several reasons. This pioneering study focuses on academic Turkish vocabulary, and it also aims to investigate the basic vocabulary that any Turkish language learner should have before starting to learn academic vocabulary. None of the earlier studies has tried to develop an academic Turkish corpus or an academic Turkish wordlist and evaluated its efficacy for the students studying Turkish as a foreign language. Therefore, this study is unique since it has been the first research study in the field of Turkish for academic purposes which suggests: a) a general Turkish wordlist, b) an academic Turkish wordlist, and c) a research on the knowledge level of foreign students studying Turkish regarding academic Turkish vocabulary.

As the creator of the AWL (Academic Wordlist), Coxhead (2000) points out:

The use of this research method, however, does not imply that language teaching and learning should rely on decontextualised methods. Instead, the AWL might be used to set vocabulary goals for EAP courses, construct relevant teaching materials, and help students focus on useful vocabulary items (p. 227).

Additionally, Gardner & Davies (2013) state that “any well-conceived list of high-coverage words brings some order to what otherwise would be vocabulary chaos (Where do we start? What can our learners focus on now, next, etc.?)” (p. 6). Therefore, it is apparent that there is a need for a general Turkish wordlist and an academic Turkish wordlist in order to select the words to teach and develop the contents of courses and evaluate students’ products in Turkish, and this study will fill this gap in the field of teaching Turkish as a foreign language and it should also be noted here that this study will be the first attempt to create an academic wordlist in Turkish for foreign undergraduate students. The wordlists developed in this study will also be made available for further research in the field.

The lack of a general Turkish wordlist that includes the basic vocabulary any learner should have before starting to learn academic vocabulary makes it necessary to make up a general Turkish wordlist that consists of more than half of the general texts in Turkish in the first phase of the study (the GSL covers up to 75% of nonfiction texts [Hwang, 1989], and up to 76% of the Academic Corpus

[Coxhead, 2000]). Therefore, it can be said that this General Turkish Wordlist (or some parts of it) is the one that students learning Turkish as a foreign language should learn before they start their academic studies. We needed a general Turkish wordlist in order to achieve an academic wordlist using Coxhead's research design in which she excluded the first 2,000 most frequently occurring words of English, as represented by West's (1953) GSL (in our study the first most frequent 300 words from the General Turkish Wordlist are excluded). This wordlist could also give language practitioners the idea of where to start or which words should be taught first regarding general Turkish vocabulary acquisition studies.

In the second phase of the study, an academic Turkish wordlist was formed. In order to achieve this, an academic corpus was derived from the E-books on the E-Learning Portal of Anadolu University. It was preliminarily assumed that the Academic Turkish Wordlist would account for 10% of the total tokens in the Academic Corpus. 10% of the total tokens was targeted since Coxhead (2000) points out that "the AWL (the Academic Wordlist in English) contains 570 word families that account for approximately 10.0% of the total words (tokens) in academic texts." (p. 213)

In the third phase of the study, the Academic Vocabulary Test consisting of 30 items chosen from the Academic Turkish Wordlist was answered by 208 participants studying at the Turkish Teaching Centers of Selçuk, Gazi, Konya Necmettin Erbakan, Karatay, Düzce, Niğde and Abant İzzet Baysal Universities.

Last but not the least, 41 undergraduate students who had previously studied Turkish as a foreign language at the Turkish Teaching Centers were interviewed in order to discover their opinions on their Turkish language competency.

The aim of implementing the Academic Vocabulary Test and holding an interview with undergraduate foreign students was to find out whether students studying Turkish as a foreign language with a goal of attending an undergraduate or graduate program need additional academic Turkish vocabulary instruction before they start studying at a university with Turkish as the medium of instruction.

The current study addresses the following research questions:

1. What is the basic Turkish vocabulary that could be aimed at before starting to learn academic vocabulary in terms of Turkish as a foreign language?
2. What are the most frequent academic Turkish words that need to be known in order to be able to follow courses at universities offering Turkish medium instruction in Turkey?
3. To what extent do students studying Turkish at the Turkish Teaching Centres know the words for academic Turkish?
4. Do foreign undergraduate students who studied Turkish at the Turkish Teaching Centers need academic Turkish vocabulary instruction to improve their Turkish vocabulary knowledge so that they can follow academic courses?

A Concise History of Corpus Linguistics In Relation With SLA

Since the late 1980's, corpora, which is defined as the bodies of written or spoken texts, have been considered in the field of linguistics. Since the advancement of technology, their use in research has only grown and more than ever. With the assistance of technology and software programs, its data is effortlessly and easily transcribed, compiled, and analyzed. The corpora can also be specifically designed for its particular usage. Corpus has been defined in a number of ways by different scholars: "bodies of texts assembled in a principled way" (Johansson, 1995, p. 19), "a collection of texts, written or spoken, usually stored in a computer database" (McCarthy, 2004, p. 1) and "a collection of texts based on a set of design criteria, one of which is that the corpus aims to be representative" (Cheng, 2012, p.3). Over its relatively short life corpus linguistics has experienced many changes. In comparison with other sub-fields of linguistics, Bonelli (2012) cites one of his previous work which classifies the history of corpus linguistics into three generations:

1. from 1960 to 1980, there were no electronic materials and a corpora which contained up to a million words;
2. from 1980 to 2000, the invention of a new method and device called "scanner" which allowed the investigators to build corpora containing up to twenty million words;
3. and from 2000 to the present, in which unlimited amounts of corpus data has been made available;

Advances in technology have also allowed scholars to have virtual access to the information needed for corpora studies. Moreover, corpus linguistics began as a methodology for describing natural language data since the impetus behind corpus linguistics has changed with the times as well, largely due to the rise of technology and the quantities of information available. The methodology has also taken a different shape. It has changed from a top-down to a bottom-up approach. In doing so, the data (e.g. corpora) are already given, and the researcher describes the patterns of usage that already exist. This is different from other research methodologies in linguistics, in which researchers set out to gain certain data from their participants or target discourses.

Bonelli (2012) describes the transition from a methodological approach (mainly qualitative) in corpus linguistics to a theoretical one that has happened thanks to a quantitative explosion that has "shaken the underlying assumptions behind many well-established theoretical positions in the field" (p. 17). To put it in a nutshell, the expansive improvements in technology have allowed corpus linguistics to literally explode as a field, and in exchange, researchers are now capable of observing patterns of change in language use through accessing huge amounts of data that have not been observed before.

Corpus research has generally been growing since the 1960's. Granger (2002) discusses that the kind of corpus research which included the Second Language Acquisition (SLA) has only been active since the 1980's. It is designated as a way corpus linguistics can be used to provide evidence of how speakers use language. Before the subject started to rise in popularity of usage, corpus linguistics and second language research were not connected at all and had never been incorporated in regards with research. However, later on, the SLA research in the field of corpus linguistics proved that techniques used within corpus linguistics could be trustworthy and valid devices for analysis.

Methodological approaches to SLA elicit data from generally a small number of texts or resources which can be participants in some research studies. Corpus linguistics employs the kind of language as it is used naturally in speech and writing from many participants or textbooks from any resources at any level of discourse. 'Learner corpora' are found either in qualitative and quantitative analysis, both of which are of primary significance in the world of empirical research. To put it in detail, a learner corpus is built from data gathered from different learners learning different languages. In these corpora, scholars tend to analyze the language that learners produce in natural ways and situations, and thus they can attempt to arrive at conclusions from a large cloud of data about such subject as patterns of usage and frequency of occurrence of a particular linguistic item. This can take place in both written and oral basis.

Most learner corpora are cross-sectional, providing data at one point in time. Longitudinal and quasi-longitudinal data are much less common, as it is difficult and time-consuming to collect these across time. Despite the short history of corpus linguistics, if the data are collected locally, the type of data gathered from learner corpora can facilitate to inform classroom teaching and help to improve instructional methods.

One of the main usages of learner corpora is in the field of second language pedagogy (O'Keeffe, McCarthy, and Carter, 2007). With the assistance of corpus data, applied linguists with particular interest in second language education have started to explain how learners acquire and use language. These kinds of analyses of learner corpora can result in important implications in how second language development is taking place and how it is identified, including the language used in classrooms and the academic discourse which emerges in writing activities as well as spoken exercises. O'Keeffe et al. (2007) maintain that the study of corpora could change long-held notions of education and pedagogy. In the same fashion, it can also bridge the gap between the science of cognition in linguistics and many other areas including teaching, structural studies, translation techniques, and sociolinguistics.

Research findings from the previous studies have been successful enough to bridge this gap. Amy Tsui, in *How to Use Corpora in Language Teaching* (Sinclair,

2004), explains some of the prominent studies done in corpus linguistics, which have investigated the following four fields: lexical collocation, genre analysis, syntactic patterning, and discourse structure. The mentioned research studies include analyses conducted with corpora such as the Brown Corpus (Francis & Kucera, 1982) and Carter & McCarthy's Spoken English Corpus (Carter & McCarthy, 1997).

It is worth noting that any learner corpus consists of a framing and classifying of learner language or interlanguage (Selinker, 1972). Interlanguage (IL) can be defined as a system of language used by second language learners that activates them to gain a sense from the second language, and which resonates the learners' momentary guesses and hypotheses about the target language. An interlanguage, thus, shows a framed and regular rule governed use of language. Although the language is non-native-like, it includes errors which reflect natural processes of language acquisition. Transfer from the first language or overgeneralization of certain second language rules (Selinker, 1972) can be named from among those mistakes and errors.

The more the understanding of the linguists increases and the more they make sense of a range of concepts of interlanguage, the less unlighted second language instruction will be. This understanding and process would lead to producing more proficient and 'native-like' language learners in classrooms.

To give an example of an effective way of producing native-like language learners, the use of prefabricated patterns can be addressed. They are also called multiword items (MWIs), in general also referred to as 'multiword expressions' (Baldwin, 2005). Cobb (2003) states that MWIs permit the speaker to plan ahead and cognitively get ready for a discourse. In addition, MWIs in general is that they are idiosyncratic in their lexicon, syntax, semantics, as well as pragmatics. They give the meaning that they are due when assumed as a whole and they are not meaningful when the words are translated individually. The meanings are always the same, and they carry predictable meanings and are predicted to be always put together. The euphemism "to kick the bucket", which conveys the semantic meaning of "to die" can be considered as an example.

The Concept of "Word" and Its Designation In Corpus Studies

Words are the core components of a language, and a large amount of word knowledge is fundamental for the mastery of a language. Therefore, 'word', as a key concept, needs to be defined accurately. In this context, word form, lemma, and word family are three relevant perceptions which need clarification.

Word Form, Lemma and Word Family

Word form, lemma and word family are three important concepts that shape corpus studies. While some studies such as Gardner and Davies (2013) use lemmas, others such as Coxhead (2000) use word family structure to produce pedagogical word lists:

Word form: it is any orthographical form of a word.

Word families: a word family consists of a root word and all its derivatives and inflections which can be understood by a learner without having to learn each form separately.

Lemma: it can be defined as the head word in a dictionary without any morphological changes.

Hence, in the following example, there are four word forms (*happy, happiness, happily, and unhappy*), four lemmas (the adjectives *happy* and *unhappy*, the noun *happiness*, and the adverb *happily*) and one word family (*happy*):

When I saw her I thought that she was happy and the happiness in her face was clear and then we talked happily about the thing which had made me unhappy the day before that day.

Thus, it becomes clear that ‘word’ can vary from treating all inflections having a single root, to treating whole orthographic word forms clearly separate and different. Thereof, in analyzing any text the limit of analysis must be elucidated. For this purpose, Bauer & Nation (1993) set up different levels “with a focus on recognition of written words”:

Level 1: *Each form is a different word.* At this level the assumption is that learners consider ‘book’ and ‘books’ as two distinctive word forms. Gardner (2007) believes that this is a pessimistic view since the primary assumption is that the learners do not have knowledge about morphological relationships.

Level 2: *Inflectional Suffixes.* At this level, learners comprehend that words with the same base and inflections are members of the same word family.

Level 3: *The most frequent and regular derivational affixes.* Words are considered members of a single lexical unit provided that they have the same base and contain inflections and/or derivational affixes. Suffixes such as –*able, -er, -ish, -less, -ly, -ness, -th, -y, non-, and un-* fall in this category.

Level 4: *Frequent, orthographically regular affixes.* At this stage, whether an affix is frequent is more important than whether it is productive or not. The same is true for orthographic criteria which are considered more crucial than phonological criteria.

Level 5: *Regular but infrequent affixes.* A number of less frequent affixes whose behavior is regular are welcome at this level. (e.g. *-age, -al, -an, -hood, -let, anti-, arch-, and bi*).

Level 6: *Frequent but irregular affixes.* Those affixes which cause problems of segmentation are included in this stage. Orthographic modifications to the base are necessary in order to let the affixation to occur. Affixes at this level are *-able, -ee, -ic, -ify, -ion, -ist, -ition, -ive, -th, -y, pre-, and re-*.

Level 7: *Classical roots and affixes.* As the title suggests, this stage belongs to the classical roots which are numerous in English. Also this level includes prefixes which are frequent, for example *ab-*, *ad-*, *com-*, *de-* *dis-*, *ex-*, and *sub-*. (p. 258-262)

So far, it has been believed that understanding inflectional and derivational morphology enables language learners to extract the underlying meaning from words without too much effort. A great support for this comes from the findings of a study by Nagy, Anderson, Schommer, Scott, and Stallman (1989). They examined the role of morphological relatedness in word recognition using a lexical decision task, and revealed the considerable impact of inflectional and derivational family frequency on the speed and accuracy of recognition of stems.

Mastery of a great deal of derivatives, though, is considered challenging. As a result, many scholars maintain that two factors play a pivotal role in deciding which unit of analysis must be used: 1) the aim of the word list (e.g., receptive vs. productive) and 2) the target user group's proficiency level and learning background.

Taking the goal of learners from manipulating word lists into account, it has been proposed that in order to maximize the amount of receptive vocabulary, a comprehensive definition of the word family is needed as the basis for the word lists (Coxhead, 2000; Nation, 2001; Nation & Webb, 2010).

On the other hand, for developing productive abilities, lemma, as a less comprehensive unit of analysis, is relevant. As claimed by Nation & Webb (2010), learners do not necessarily acquire various forms of a word by solely using one form of it.

Language learners' proficiency level is the second influential factor in the selection of unit of analysis. Knowing this, Gardner (2007) puts the emphasis on issues related to language learners and offers a brief amalgamation of research findings relevant to morphological acquisition:

1. *Base Forms + Regular Inflections:* younger children; low general English proficiency; low English literacy skills; no specific morphological training.
2. *Base Forms + Regular Inflections + Irregular Inflections + Derivational Prefixes:* older children and adolescents, intermediate general English proficiency, intermediate English literacy skills; some morphological training.
3. *Base Forms + Regular Inflections + Irregular Inflections + Derivational Prefixes + Derivational Suffixes (regular) + Derivational Suffixes (irregular):* adults, high general English proficiency; high English literacy skills; extensive morphological training or experience (p. 258-262)

It can be inferred from Gardner's implications that his major idea was that the lower the language proficiency is and the less the morphological intake is, the lower

expectations we should have regarding a learner's ability to distinguish and realize the relationships among word forms and families.

The most efficient word lists have been established on word families. Davies and Gardner's Frequency Dictionary of American English (2010) consists a 5000-word list, which is one example of a list that is not based on word families and these five thousand words comprise lemmas, using Francis and Kucera's (1982) definition of lemma: "a set of lexical forms having the same stem and belonging to the same major word class, differing only in inflection and/or spelling" (p. 1). For example, the lemma *BASE* (n.) has the members *base*(n.) and *bases* (n.); the separate lemma *BASE* (v.) has the members *base* (v.), *bases* (v.), *basing* (v.), *based* (v.). In their introduction to this list, Gardner and Davies (2013) introduce lemma as the unit of analysis, based primarily on the collocational information we would lose from a more inclusive unit.

A number of additional benefits of using the lemma as the unit of analysis was offered by Schmitt (2010), and two of them are particularly relevant to this study:

1. "The unit is relatively straightforward, which means that consumers of research studies will know what it means."
2. "It takes a lot of vocabulary to function in a language, and estimates based on word families may give the impression that less is necessary than is the case, especially as many consumers may simply interpret word family figures as 'words'." (p. 193)

As Gardner (2007) and Schmitt (2010) discuss, there are certain disagreements regarding the use of lemmas and word families. Schmitt reminds that, by deploying word families as the unit of analysis, we are considering that the students have a great deal of morphological competency. To give an example we are considering that a learner who comprehends the word *form* is able to realize the common root and properly use the meaning of suffixes/infixes/ prefixes to the following word family members: *former*, *formation*, and *formative*. This idea most probably overestimates knowledge, thus alludes the fact that the learners know more than you might be able to consider and faints the challenge that they should possess to learn more.

The Number of Words Needed For Sufficient Comprehension

In order to know the disposition and nature of vocabulary learning, and to set certain goals to achieve in designing a curriculum and a teaching methodology, research has emphasized that some questions (research strands) has to be posed. The mentioned trend in vocabulary research has sought to figure out how many words are necessary to fulfill some tasks that learners hope to attain. There are two primary questions in the mentioned fields of study. Once we answer these two questions, we can begin to estimate the number of words learners require to achieve the required level of comprehension.

1. What kind of task are the learners trying to accomplish?
2. What proportion of lexicon coverage is needed for sufficient comprehension?

Several vocabulary researchers such as Nation & Waring (1997) have classified tasks in order to determine whether they are *comprehension* or *production* based. The division is primarily made based on the fact that the mode of input can differ between ‘aural’ (i.e., listening comprehension tasks) vs. ‘written’ (i.e., reading comprehension tasks). Furthermore, comprehension tasks are typically classified by genre (e.g., listening to television programs vs. watching movies; reading newspapers vs. novels).

In connection with reading tasks, it was believed that a receptive vocabulary which allows for 95% text coverage will be adequate for a suitable and acceptable level of comprehension. This figure was related to a study by Laufer carried out in 1989. It had a strong impact on practitioners’ belief in a way that for many years they believed that it is the right estimation for the amount of words needed for coverage of a passage.

Laufer (1989) carried out a research using Israeli EAP students as participants. She had them underline unknown words in a passage and then answer comprehension questions which were related to the text. She then probed the relationship between the number of unknown vocabulary underlined and reading comprehension marks. She used 55% comprehension as the measure for sufficient comprehension level. She concluded that significantly those participants who scored 55% could better understand words accounting for 95% or more of the passage. Therefore, she resulted that knowing 95% vocabulary of a certain text stands for the threshold level of adequate reading comprehension.

This vocabulary threshold for a sufficient understanding of a text was later changed to 98% by Hu & Nation (2000). They approached “adequate comprehension” in a different way: reading comprehension test scores equal to those earned by test takers who had vocabulary knowledge providing 100% text coverage (a score of approximately 71% when scores on two comprehension tasks were averaged). They used 71% comprehension as the measure for sufficient comprehension level. They concluded that significantly those participants who scored 71% could better understand words accounting for 98% of the passage.

Schmitt, Jiang, and Grabe (2011) ran a much better-designed investigation regarding the relationship between vocabulary levels and reading comprehension. They asked the participants to identify their knowledge of vocabulary items doing a yes/no checklist test format. The information gained was compared with their performance on a reading comprehension test. Their findings implied that the vocabulary coverage percentage needed to gain an adequate comprehension of a text is closer to the figure proposed by Hu & Nation (2000): to achieve over 68%

comprehension, participants are required to have vocabulary knowledge that covers at least 98% of the text.

A number of other studies have also attempted to distinguish how many words are needed to attain adequate comprehension. For example, Laufer (1992) compared the vocabulary size of EAP students with their reading comprehension scores to determine what level of vocabulary knowledge would allow for adequate comprehension. Participants needed a receptive vocabulary of 3000 word families to achieve this score as adequate comprehension was operationalized as a score 56% or better on a reading comprehension test. It was also found that for every additional 1000-word level that participants tested at, their comprehension scores would increase by approximately 7%.

Nation & Waring (1997) asserted that 95% coverage of written texts could be reached with 3000-5000 word families, based on text coverage of the Brown Corpus (Francis & Kucera, 1982) and of a corpus of adolescent fiction (Hirsh & Nation, 1992).

Adolphs and Schmitt (2003), six years later, researched the vocabulary level required to take part in everyday spoken conversation or any kind of discourse. They suggested a tentative figure of nearly 3000 word families (or 5000 individual word forms) as a reasonable target (i.e., approximately 96% word coverage) for participation in everyday spoken discourse (p. 433). They investigated text coverage in two spoken corpora: the 10-million word spoken component of the BNC and the five million-word Cambridge and Nottingham Corpus of Discourse in English (CANCODE). They certified that “there may be no one lexical coverage figure which would supply an adequate amount of vocabulary in every situation” (p. 433).

Another way of calculating vocabulary size needs for language learners in order to accomplish various tasks is to base estimations on the BNC sub-lists (Nation, 2006). The BNC lists consist of a series of 1000-word lists arranged in order of frequency of occurrence. To meet the desired coverage (e.g., 98%), the coverage of a text or a corpus provided by the BNC 1K, BNC 2K, etc. is evaluated. For example, researchers conclude that a vocabulary of 5000 words is required to comprehend a kind of text if 98% coverage of a that kind of text is met at the BNC 5K level.

Using this methodology, Nation (2006) proposed that to read a novel or a newspaper a vocabulary of 8-9000 words is required, and that a vocabulary of 6000-7000 words is needed to understand a children’s movie or unscripted spoken interaction.

Corpus-Based Language Learning

A corpus is a large collection of language as it occurs naturally which is collected systematically and is usually stored and processed digitally. Corpora existed before computers and were created primarily for linguistic research. Since then, the

volumes of corpora have become bigger and bigger (about several hundred million words), and the possibilities of using corpora have changed and gone beyond the simple linguistic research to language teaching and research.

Corpora are identified often either large amount of texts generalized or small amount of texts which are specialized corpora. In order to make broad claims generalized corpora are often used and are related to language use. They generally include multiple sub-corpora composed of large parameters like register, spoken vs. written form, or location. The 100-million-word British National Corpus can be categorized as corpora which is normally used and is generalized. It includes an even broad proprietary corpora deployed by publishers as means of investigation tools for corpus-based dictionaries, grammar, and textbooks. However, specialized corpora, such as MICASE (Michigan Corpus of Academic Spoken English), pertain to a narrower focus and are usually smaller. These technical and specialized corpora are often produced for particular aims. Some of the targets then can be introduced here are such as conceptualizing EFL or ESL learners' use of idioms or phrases or analyzing the word diversity in a small scale corpus (i.e. a corpus of newspaper or magazine summaries). The names of useful lists of corpora, including either generalized or specialized corpora which are accessible, are given in Bennett (2010) and O'Keefe, McCarthy, and Carter (2007).

The technology developed over time and corpus-based language learning received an increasing amount of attention. Teachers and researchers believe that it is an influential second and foreign language teaching approach facilitating course design, teacher training, material development, classroom implementations, learners' writing skills, writing feedback, vocabulary, grammar, reading and the transfer of learned vocabulary knowledge to writing.

In language teaching, corpora have also been utilized in writing dictionaries (such as the Collins COBUILD English Language Dictionary) and developing concordancers, or computer programs to be used with ESL and EFL teaching. Today, some corpora and concordancers are available online.

The use of corpora in language education can provide not only a way to discover about a language and its culture, but also chances for using it communicatively and interactively, while focusing on meaning and not form. Thus, they suggest that using corpora in second and foreign language education can be a beneficial tool to develop reading and writing skills and understand and produce particular types of texts.

From the view of the language learner, corpus-based second and foreign language instruction can provide an important tool by which language learners can increase their motivation and make themselves more autonomous (Aston, 2001; Woolard, 2000).

Accessing the authentic language can be mentioned as one of the benefits of using a corpus for second and foreign language education, which is not possible

through using a traditional dictionary. In most dictionaries limited and artificial sentences are used as examples to clarify meanings. The use of concordancing is suggested referring to the aforementioned fact. Some of the recent studies can be named here as follows: collocation learning (Howarth, 1998; Sun and Wang, 2003), lexical acquisition (Cobb, 1999), writing (Sun, 2007; Tribble, 2001), critical literary (Louw, 1997), stylistics (Kettemann, 1995), and grammar (Sun, 2000, 2003).

To put it in a nutshell, the learners not only benefit from the corpus-based instruction for their linguistic knowledge correction, but the instruction also promotes their lexico-grammatical awareness. Further, the more the students get imposed and familiar with corpora the more independent and confident language producers they become. Thus, the issue of practicality of corpus comes into question and becomes of major concern. Hereafter, the issue of corpus-based language learning will be discussed more in detail addressing its most important elements along with the relevant research. It will focus on more on the problems and how it does not meet the teachers' needs as the core element putting the idea of corpus-based learning into practice.

Related Studies

Farr (2003) used a corpus of spoken English derived from an Irish university setting to examine how engaged listenership was signaled in meetings between tutors and graduate students. The various linguistic devices employed by both parties for this purpose were quantified and functionally analyzed. The three strategies examined in the study included minimal response tokens (e.g. mm hm, mm, yeah), non-minimal response tokens (e.g. really, right, fine, good), and simultaneous speech and interruptions. These items were found to differ quantitatively and functionally and were shown to be highly relevant for the effective functioning of students in such a spoken EAP context.

Harwood (2005) explored the various anti-textbook arguments in the literature to determine their relevance to the field of EAP. He distinguished between a strong and a weak anti-textbook line, then reviewed the corpus-based studies which compare the language EAP textbooks teach with corpora of the language academic writers use. After sorting out the methodology of some of the studies, he claimed that the weak anti-textbook line most accurately described the state of the EAP textbook market. Although this view was not against textbooks per se, it held that the current state of commercial materials was highly unsatisfactory, and that publishers and materials writers must make greater efforts to ensure that research findings were put into use in textbooks.

Cookson, Hunter, Jackson, and Sick (2005) presented an overview of the criterion essay management system in the context of an English for Academic Purposes Writing course. They discussed student and teacher productivity, providing feedback on student writing, using corpus linguistic techniques in conjunction with Criterion,

and learning outcomes. The first semester of English for Academic Purposes Writing course, which was a compulsory course for English literature and language students at Obirin University, focused on expository writing, typical of the TOEFL[R] writing exam. The second semester focused on writing about literature. To facilitate their writing all students were provided with a user account for Criterion, a web-based essay management system. Essays submitted to Criterion were evaluated by computer, and returned to the writer in approximately one minute. Submitted essays were kept on the Criterion server, where they could be accessed and evaluated by teachers, and further revised by students.

Flowerdew (2015) investigated current corpus-based research on written academic English and illustrated the tight links that exist between corpus research and pedagogic applications. She first explicated Sinclair's concept of the 'lexical approach', which sustains much corpus research and pedagogy. She then discussed studies which focus on individual lexical items, phraseology (including lexical bundles) and rhetorical functions. Finally, she examined studies that combine Swalesian move structure analysis with corpus analysis. Throughout the paper, she underlined the importance attached to lexis in both corpus research and pedagogic applications of corpus findings in the realm of written discourse in English for Academic Purposes (EAP), covering both general and more specific purposes.

Since previous studies were mainly focused on corpus use in classroom settings, more research was needed to reveal how students react to using corpora on their own and what should be provided to help them become autonomous corpus users, considering that their ultimate goal is to be independent scholars and writers. In a study conducted by Chang (2014) in an engineering lab at a Korean university over 22 weeks, data on students' experiences and evaluations of consulting general and specialized corpora for academic writing were collected and analyzed. The findings showed that, while both corpora served the participants well as reference sources, the specialized corpus was particularly valued for its direct help in academic writing because, as non-native English-speaking graduate engineering students, the participants wanted to follow the writing conventions of their discourse community. The participants also showed disparate attitudes toward the time taken for corpus consultation due to differences in factors such as academic experience, search purposes, and writing tasks. The article concluded with several suggestions for better corpus use with EAP students regarding the compilation of a corpus, corpus training, corpus competence, and academic writing.

Tribble and Wingate (2013) reported on the first phase of a discipline-specific academic writing project at King's College London. They believe that the instructional approach takes as its starting point the assessed academic genres which students have to write. Working within the tradition of genre-based approaches to academic writing instruction, they used the KCL Apprentice Writing Corpus to

provide a databank of exemplars. These texts, along with grading and feedback information from academic departments, and input from disciplinary specialists, have provided the basis for discipline-specific writing courses which focus on strategically important assessed disciplinary genres (Critical Assignments in Applied Linguistics, and Laboratory Reports in Pharmacy). They discussed issues in corpus compilation, the selection of exemplars, and the rationale which has informed the development of the teaching resources. They also provided examples from the workshops offered as part of the courses. They concluded with a brief account of the evaluation of the courses with a discussion of how corpus informed materials were being developed to extend the project in its second phase.

Vincent (2013) demonstrated an approach based on findings from phraseology which can be used to identify potentially useful phrases in a text by starting with continuous or discontinuous sequences of very frequent words. These combinations were then searched in a corpus of academic texts to find their common collocates and ascertain whether the particular wording chosen in the text was an exemplar of a recurrent phrase. The phrases identified were also evaluated in terms of whether they were worthy of pedagogic attention bearing in mind their distinctiveness to academic prose and their functions. The approach thus offers practitioners of English for Academic Purposes (EAP) a way of identifying and evaluating common phrases in their own texts. Pedagogic materials were also presented which were based on the findings of such searches and which aim to raise learner awareness of phraseology in academic English.

Charles (2012) reported on the feasibility and value of an approach to teaching EAP writing in which students constructed and examined their own individual, discipline-specific corpora. The approach was trialed in multidisciplinary classes of advanced-level students (mostly graduates). The course consisted of six weekly 2-hour sessions. Data were collected from initial and final questionnaires, which provided background information and asked students to evaluate the corpus work. Data from 50 participants were presented and showed generally positive results. Over 90% of students found it easy to build their own corpora and most succeeded in constructing a corpus of 10-15 research articles. Most students were enthusiastic about working with their own corpora: about 90% agreed that their corpus helped them improve their writing and intended to use it in the future. This suggests that even corpora of this size and type can provide a useful resource for writing discipline-specific texts. They discussed the data on participants' attitudes and experiences and considered the issues and problems that arose in connection with do-it-yourself corpus-building. She also argued that this approach need not be restricted to small groups of well-resourced students, but can be implemented in mainstream EAP classes.

The study by Krishnamurthy and Kosem (2007) summarizes the processes and factors to be considered in the design and compilation of an EAP corpus (e.g., the

selection and acquisition of texts, metadata, data annotation, software tools and outputs, web interface, and screen displays), especially one intended to be used for teaching. Such a corpus would also facilitate EAP research in terms of longitudinal studies, student progression and development, and course and materials design. Their study was informed by the preparatory work on the EAP sub-corpus of the ACORN corpus project at Aston University.

Hyland and Tse (2007) considered the notion of academic vocabulary: the assumption that students of EAP should study a core of high frequency words because they are common in an English academic register. They examined the value of the term by using Coxhead's (2000) Academic Word List (AWL) to explore the distribution of its 570 word families in a corpus of 3.3 million words from a range of academic disciplines and genres. The findings suggested that although the AWL covers 10.6% of the corpus, individual lexical items on the list often occur and behave in different ways across disciplines in terms of range, frequency, collocation, and meaning. The results suggested that the AWL might not be as general as it was intended to be and, more importantly, questions the widely held assumption that students need a single core vocabulary for academic study. They also argued that the different practices and discourses of disciplinary communities undermine the usefulness of such lists and recommend that teachers help students develop a more restricted, discipline-based lexical repertoire.

Richard (2003) discussed that most previous work in EAP has focused more on the content of teaching than on the methodology. By examining reports of EAP teaching practice, he identifies six key approaches to the teaching of EAP: inductive learning, process syllabuses, learner autonomy, authenticity, technology, and team teaching. Reasons for the emphasis on these approaches were given. The paper concluded by arguing that a greater emphasis needs to be placed on methodology in EAP.

Taking a corpus-based perspective to the analysis, Eniko (2006) compared the language of university classroom talk to academic prose and face-to-face conversation, positioning university classroom talk on the language continuum of speech and writing. More specifically, looking at a large number of linguistic features working together, she described the language of 196 university class sessions (1.4 million words) collected at six universities across the United States. The analysis was based on Biber's multi-dimensional analytical framework (Biber, 1988). Overall, the results indicated that in these classrooms language features associated with both informational focus (as in academic prose) and involved discourse (as in face-to-face conversation) were equally present. Hence, this evidence-based research supported the argument that North American university classrooms exhibit language that can be treated as an interface on an oral–literate continuum.

Read (2002) focused on the form of the input for EAP listening tests. He assumed that while there was a great deal of interest currently in the use of visual media for listening assessment, it was likely that tests with purely auditory input will continue to have a significant role. The article reported on the development of a test in two audiotaped versions: a scripted monologue and an unscripted discussion of the same topic by three speakers. The test was applied to two matched groups of learners taking an intensive pre-session EAP course and it was found out that the monologue version was significantly less difficult than the discussion. Various possible reasons for the difference in findings were demonstrated and it was concluded with a consideration of what can be learned from the research for the design of listening test tasks with interactive input.

Grant (2011) investigated the frequency and functions of 'just' in British academic spoken English. It adopted the meanings of 'just' established by Lindemann & Mauranen, 2001, taken from the occurrences of 'just' across five speech events in the Michigan Corpus of Academic Spoken English (MICASE) to see if they also apply to occurrences of 'just' in the British Academic Spoken English (BASE) corpus. One fifth of the mostly monologic lecture data and one fifth of the more interactive seminar data was examined across the four disciplines of the BASE corpus. Results from corpus examples showed that as in MICASE, 'just' occurs most in academic spoken English as a minimizer or mitigator, across all four disciplinary groupings, often in metadiscursive or 'teacher talk' frames. Although the highest frequency of 'just' was in Physical Sciences, there was little difference in the function of 'just' among the different disciplinary groupings. There was, however, some difference between student and lecturer use of 'just', showing that there was a place for the teaching of 'just' in English for academic purposes classes for students preparing for university study.

Focusing on the use of two functional categories (articles and prepositions) and three content categories (nouns, adjectives and verbs), Genç (2013) in his study compared a small, spoken non-native speaker corpus (10973 words) with a smaller, spoken native speaker corpus (2331 words). Participants in both groups were assigned a speaking task, the result of which produced the non-native speaker and native speaker corpora and those corpora were analyzed quantitatively with the help of computer software titled Concordance. The results indicated that due to the limited number of choices, there was a large overlap in the use of articles and prepositions; close similarity between the use of nouns and verbs; and a remarkable difference in the use of adjectives.

Wood & Appel (2014) assert that some studies have examined which units might be of greatest utility for teaching English for academic purposes (EAP), dealing with corpora of academic language and it is a known fact that most EAP programs focus on preparing students for first year university courses, in which textbooks

play the key role. They used a corpus analysis method focusing on units called multiword constructions (MWC), and addressed three hitherto unexplored key issues for EAP teachers and materials developers: What MWC existed in first year textbooks used in business and engineering, the most popular EAP student majors at a large Canadian university; whether the first year textbook MWCs were present in the reading texts in popular EAP textbooks; whether the EAP textbooks contained pedagogical treatment of MWC. The results showed that the MWC were weakly present in the EAP materials, and that they were not dealt with pedagogically.

Reviewing the literature, it is important to note that the advancement of technology has enabled the researchers to easily compile large-scale corpora (both generalized and specified). It is done as an authentic way of collections of electronically-stored language texts and information which are analyzed quantitatively. A concordancer or a computer technology can be used for linguistic analysis, in order to distinguish the frequency of particular words and expressions. As Svartvik (1990) mentions, computer/corpus-based applied linguistics yields “more academic cross-fertilization and fresh approaches to old problems” and leads to “a better understanding of the complexities of natural language and the marvel of human language processing.” (p. 85)

Briefly reviewing the related studies carried out in the field suggest the fact that more researchers in the fields of TEFL and SLA have recognized the potential pedagogical and practical importance of learner corpora. However, less studies have been carried out to fill the gap of learning English in Turkey as an EFL context.

Corpus Studies In Turkish Context

Middle East Technical University (METU) has proposed a Turkish Corpus which is a collection of two million words of post-1990 written Turkish samples. It is said on the website that “the words of METU Turkish Corpus were taken from 10 different genres. At most 2 samples from one source is used; each sample is 2000 words or the sample ends when the next sentence ends.” (METU, n.d.)

TS Corpus (2012) is “a general-purpose corpus containing 491 million tagged tokens”. The data of TS Corpus is web-based and it is derived from the internet such as newspapers, instructions on the university pages, meeting reports, The Grand National Assembly of Turkey reports. Unlike other corpora in Turkish, this corpus serves a Turkish Corpus which

- presents a tagged corpus
- provides open access on internet and user-friendly sign up via internet
- presents a platform free (Mac OS, Linux, MS Windows, etc) corpus
- is compatible with all modern browsers
- is accessible by desktop PCs, net-books, tablet computers or smart phones (TS Corpus, 2012)

In another research carried out at Mersin University, a corpus called Turkish National Corpus (TNC) has been made up. It is “designed to be a balanced, large scale (50 million words) and general-purpose corpus for contemporary Turkish” and Aksan et al (2012) claim that TNC generally followed the framework of British National Corpus. For that reason, this corpus is used in the current study as the basis for creating the General Turkish Wordlist and a list of words (e.g. pronouns) that will be excluded from the Academic Turkish Wordlist. It is a 50-million-word corpus consisting of written texts (98%) across a wide variety of genres covering a period of 20 years (1990-2009). 2% of TNC consists of transcribed spoken data. It is suggested that TNC is a balanced and a representative corpus of contemporary Turkish in which the distribution of number of words is determined proportionally for each text domain, time and medium of text (Aksan et al, 2012).

Using suggestions from “Dictionary of Word Frequency of Written Turkish” (Göz, 2003) for words to be taught to the students in basic level, Açık (2013) developed a vocabulary list for basic level Turkish vocabulary instruction. Although her list could have been used as a General Turkish List that is aimed in this study, it was not chosen because the source of her list, Dictionary of Word Frequency of Written Turkish, was thought to be inappropriate for the current study.

There are also several dissertations on corpus. In her study, Kurtoğlu (2013) analyzed values to be taught in Turkish textbooks using corpus-based discourse analysis method. Her main aim was to show how corpus-based discourse analysis can be used to decide whether the Turkish textbooks serve to achieve the values in the objectives and principles of Ministry of Education.

Yıldız (2012) investigated the predicates in the introduction and conclusion sections of Turkish academic texts that are written in humanities, basic and applied sciences; the frequencies and the clusters of them as verbs, nouns, adjectives and adverbs; the similarities and differences among their usages in the disciplines; and the effects of them in constituting academic genre.

Şanal’s research (2007) addressed “multidimensional lexical aspects of a machine-readable corpus of the writing of Turkish students of English as a foreign language.” His doctoral dissertation aimed at discovering: “1) learners’ lexical complexity and richness, 2) how far the learner corpus is deviant from the reference corpus in terms of the features and percentages of the top most 200 frequent tokens, 3) what are the most salient and stereotype features of the learner corpus? And how far the learner corpus influenced by the learners’ L1.” Findings in his study showed that: “1) the learner corpus is much less complex in terms of lexical diversity and density than the reference corpus. 2-3) Learners’ top 200 tokens are markedly characterized by vague lexica, underuse and overuse of some lexica, resulting from the influence of the linguistic and rhetorical features of learners’ L1.”

Ağçam's study (2014) "intended to cover the epistemic stance devices used in conveying author stance in Academic English". It was investigated that whether there is a statistically significant difference across the doctoral dissertations authored in English by native, Spanish-speaking and Turkish-speaking candidates with respect to the use of these devices. A total number of 136 doctoral dissertations written by native and non-native speakers of English were analyzed. Epistemic stance devices found in the dissertations were identified and examined in four groups (epistemic adjectives, epistemic adverbs, epistemic nouns and epistemic verbs).

Thus, this research intends to answer how the TFL learners receive input that has sufficient quality and quantity. It will also find an answer suggestive of some of the weak points and strong points of teaching Turkish as a foreign language situation in Turkey. The research will be following the way to discover answers that will help the teachers fill this gap by providing the right corpora and general/academic wordlists. Another question which remains unanswered is whether the TTCs provide the foreign students with adequate opportunity to employ whatever they learned in independent reading. It should also be analyzed to see if the texts which are used in the textbooks are representative of the sample texts available in the field. Additionally, it is necessary to know whether the number of the words needed for a successful academic life brought in the textbooks correspond well with what their common uses are.

METHODOLOGY

In second language learning, vocabulary is the essential part of all comprehension both in authentic tasks such as checking out in a hotel and in academic reading, which is in turn fundamental for the academic success of language learners. Instructors in content area classes frequently teach content specific vocabulary, but they need to be aware of the obstacles that can occur when students do not know the basic words. Therefore, this study focuses on both basic words and academic words.

Preliminary Considerations

Wordlists such as General Service List (West, 1953), The Academic Word List (Coxhead, 2000), and Academic Vocabulary List (Gardner & Davies, 2013) were created to assist students and teachers regarding English language teaching. Similar to these wordlists, using suggestions from "Dictionary of Word Frequency of Written Turkish" (Göz, 2003) for words to be taught to the students in basic level, Açıık (2013) developed a vocabulary list for basic level Turkish vocabulary instruction. Although her list could have been used as a General Turkish List that is aimed in this study, it was not chosen because the source of her list, Dictionary of Word Frequency of Written Turkish, was thought to be inappropriate for the current study and the main reason for that was that Açıık's list was lack of the spoken data since Dictionary of Word Frequency of Written Turkish did not contain any transcribed spoken data. Therefore, the first 11000 most frequent words from Turkish National

Corpus (Aksan et al, 2013) were used as the basis for generating the General Turkish Wordlist since this corpus is “a balanced and a representative corpus of contemporary Turkish” with a size of nearly 50 million words and “consists of samples of textual data across a wide variety of genres covering a period of 20 years (1990-2009)”.

Research Design

This research was designed as a mixed-method research study employing quantitative and qualitative approaches. However, it was administered with a more focus on quantitative aspect. An Academic Vocabulary Test was created and implemented in order to describe TFL learners’ knowledge of Turkish academic vocabulary. So, a quantitative method was used and the results were statistically analyzed.

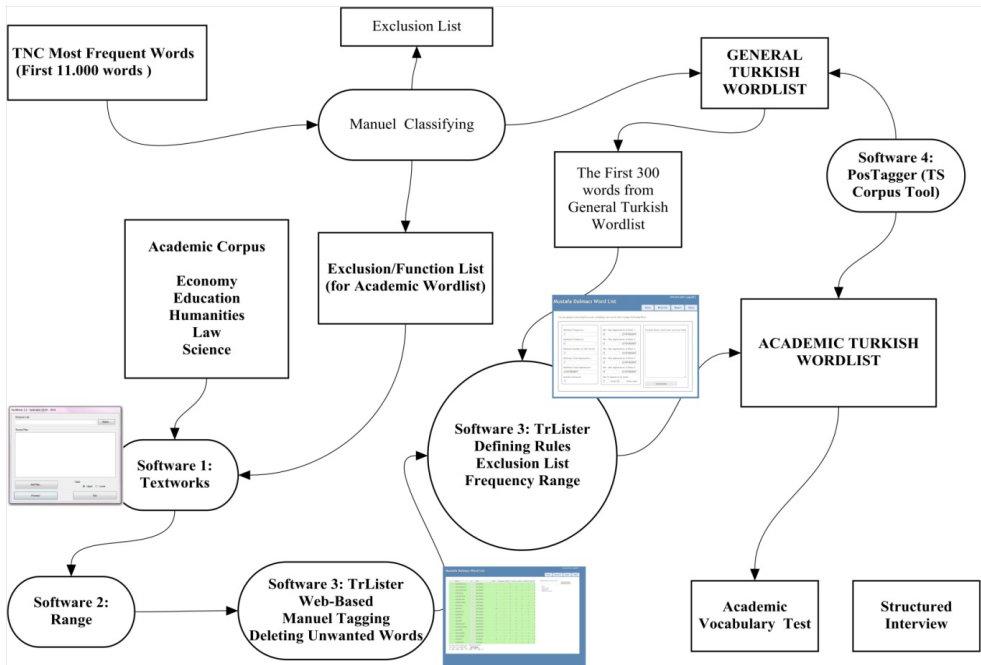


Figure 1. Research design of the current study

The qualitative aspect of the study, on the other hand, involves qualitative examination of the interview forms to expand and elaborate the quantitative results. The design of the study is illustrated above in Figure 1. The steps of creating general and academic wordlists will be explained in the subsequent sections.

Developing The General Turkish Wordlist

Using a frequency list derived from a comprehensive corpus is the most logical way to create a general language wordlist. Therefore, as mentioned in the previous sections, prior corpus studies in Turkish were reviewed beforehand and the first 11000 most frequent words from Turkish National Corpus were used to create the

General Turkish Wordlist. In English, grouping the inflections of the words under lemmas is a relatively easy process because inflectional suffixes are not confusing and limited in number. On the other hand, Turkish is an agglutinative language so a frequency list does not give us the most common lemmas easily. The most frequent 11000 words from Turkish National Corpus were selected to make a list of lemmas as the unit of analysis. In other words, the most frequent 11000 words of Turkish National Corpus were manually grouped together under lemmas differing only in inflectional forms and belonging the same major class.

Lemmas, or the groups of lexical forms with the same stem that belong to the same word class, (Francis & Kucera, 1982) are used for the creation of the General Turkish Wordlist and Academic Turkish Wordlist. They are understood by learners as follows: words with the same base and inflections are members of the same word family as defined by Level 2 of Bauer and Nation's (1993) scale. An example of the verb *kullanmak* (to use) can be seen in Table 2.

As it can be seen in the table below, the verb *kullanmak* (to use) has 27 different inflections whereas the same verb form in English has only 4 different inflectional forms (use, used, using, uses).

Table 2. Inflectional Forms of the Verb “kullanmak”

	Word	Frequency	Lemma	Total Frequency
1	kullanan	2210	kullanmak	45524
2	kullanarak	3499	kullanmak	45524
3	kullandı	1127	kullanmak	45524
4	kullandığı	2607	kullanmak	45524
5	kullandığımız	563	kullanmak	45524
6	kullandıkları	891	kullanmak	45524
7	kullanılabilir	1449	kullanmak	45524
8	kullanılacak	1074	kullanmak	45524
9	kullanılan	8466	kullanmak	45524
10	kullanılarak	1586	kullanmak	45524
11	kullanıldığı	1390	kullanmak	45524
12	kullanılır	2838	kullanmak	45524
13	kullanılıyor	833	kullanmak	45524

14	kullanılmaktadır	1831	kullanmak	45524
15	kullanılması	2819	kullanmak	45524
16	kullanılmasına	525	kullanmak	45524
17	kullanılmasını	540	kullanmak	45524
18	kullanılmaya	639	kullanmak	45524
19	kullanılmış	811	kullanmak	45524
20	kullanılmıştır	1498	kullanmak	45524
21	kullanır	765	kullanmak	45524
22	kullanıyor	1019	kullanmak	45524
23	kullanma	1973	kullanmak	45524
24	kullanmak	2288	kullanmak	45524
25	kullanması	527	kullanmak	45524
26	kullanmaya	1077	kullanmak	45524
27	kullanmayı	679	kullanmak	45524

While finding out lemmas, some words were omitted from the list. The words excluded from the General Turkish Wordlist were:

- 1) All proper names (*Rıza, Afrika, Akdeniz* etc.)
- 2) All numbers including ordinal numbers and years
- 3) Abbreviations (*ABD, yıl, YÖK* etc.)
- 4) Letters and misspelled words
- 5) Question Particles (*mi, midir, mısın* etc.) and exclamations

A full list of these words can be seen in Appendix 1.

Building The Academic Turkish Corpus

Researchers who have compiled academic corpora included a variety of academic texts. As it can be seen in Table 3 below, Coxhead's corpus includes "414 academic texts by more than 400 authors, containing 3513330 tokens (running words) and 70377 types (individual words)" in four subcorpora: arts, commerce, law, and science. Her academic corpus contains articles from academic journals, university textbooks or coursebooks and texts from some other corpora.

Table 3. Composition of Coxhead's (2000) Academic Corpus

	Discipline				Total
	Arts	Commerce	Law	Science	
Running Words	883214	879547	874723	875846	3513330
Texts	122	107	72	113	414
Subject Areas	Education	Accounting	Constitutional	Biology	
	History	Economics	Criminal	Chemistry	
	Linguistics	Finance	Family and	Computer	
	Philosophy	Industrial	Medicolegal	Science	
	Politics	Relations	International	Geography	
	Psychology	Management	Pure Commercial	Geology	
	Sociology	Marketing	Quasi-commercial	Mathematics	
		Public policy	Rights and remedies	Physics	

Another study entitled “A new academic vocabulary list”, carried out by Gardner & Davies (2013), used the academic portion of the Corpus of Contemporary American English (COCA) (<http://corpus.byu.edu/coca>). The academic section of COCA contained the following nine disciplines with 120 million words: 1) Education 2) Humanities 3) History 4) Social science 5) Philosophy, religion, psychology 6) Law and political science 7) Science and technology 8) Medicine and health 9) Business and finance.

In the light of the studies mentioned above, the textbooks currently used at the undergraduate programs of Open Education Faculty of Anadolu University were used in order to build a sample *Academic Turkish Corpus* since undergraduate foreign students learning Turkish as a foreign language are the target population in this study. They need to learn Turkish in order to follow their courses at Turkish Universities offering Turkish-medium instruction. Therefore, listening especially understanding the lecturers, reading comprehension, and writing are the most important skills in their academic lives and their textbooks are their primary instructional material.

Corpus Design and Compilation

Similar to the studies mentioned previously (Coxhead / Gardner & Davies), textbooks which had open-access in the 2013-2014 academic year and could be downloaded from the website of Open Education Faculty of Anadolu University were chosen across five different categories. These categories were: 1) Humanities 2) Education 3) Economy (Commerce) 4) Law 5) Science. Textbooks were selected in different numbers to ensure a fair distribution across the number of words in each category. While 30 textbooks were added to the categories of Education, Economy and Law (10 for each), 11 textbooks were added to Humanities and 16 to Science. The details of the Academic Turkish Corpus can be seen in Appendix 2 and Appendix 3.

Developing The Academic Turkish Wordlist

Developing the Academic Turkish Wordlist was a really painful process. To make it better understood, the whole process is elucidated as below:

1) 57 textbooks containing 4032442 words (tokens) were put under five different categories. The parts not required such as the front and back cover, table of content and references were extracted one by one using Foxit PDF Editor V. 2.0 computer software package.

2) The textbooks in the same category were merged, and one pdf file for each category was obtained. Table 4 shows the number of pages of these pdf files in each category. Each pdf file was processed using AbbyyFineReader 10.0.software. This software was used to convert PDF files in each category into txt file format.

Table 4. The Number of Pages in Each Category

Category	The number of textbooks	The number of pages
Economy	10	2121
Education	10	2124
Humanities	11	2446
Law	10	2028
Science	16	3020
Total	57	11739

3) At this point, txt files had many unwanted letters, numbers or misspelled words. Therefore, another software was needed to extract these unwanted words and to organize remaining words as word per line format. Upon request, a computer programmer wrote a small scale program (software) called Textworks, which has three main functions:

- a) Deleting some of the unwanted words automatically
- b) Excluding the list of words prepared beforehand.
- c) Organizing words as word per line format

To delete some of the words automatically, Textworks uses some principles. The first principle is to delete all the numbers in the input file. The second is to delete the words which have letters that do not exist in Turkish alphabet (The letters of *q*, *w*, and *x*). Textworks can leave out the list of words from the input file. While generating the General Turkish Wordlist, two exclusion lists were formed. The first exclusion list was the list of the words which were excluded from the first 11000 words of TNC which was previously mentioned in the section of “Developing the General Turkish Wordlist” (Appendix 1). The second exclusion list was formed at same time to exclude function words from the Academic Turkish Corpus. This second exclusion list therefore was called the Function list. Function list or the

second exclusion list contained pronouns, determiners, exclamations, some certain conjunctions, adjectives and the nouns which were considered inappropriate to be included in the Academic Corpus. Pronouns, determiners, exclamations and some certain conjunctions in the Function list were thought to be directly associated with grammar and the Academic Wordlist was intended to include content words. The function list is given in Appendix 4. The last and the most important function of Textworks is to organize words as word per line format. We needed input files (txt files in five categories of the Academic Corpus) as word per line format for two reasons. The first reason is that the software, RANGE (Heatley, Nation, and Coxhead, 2002), which is used in the next step of the study, needs input files as word per line format. The second reason is that when the words are in word per line format, it is easier to leave out the misspelled or unwanted words. For that reason, Textworks was written to sort the words firstly in alphabetical order and then according to the number of the letters in each word. In this way, the longest words, probably the misspelled ones, appeared at the end of the output file and were deleted manually afterwards. Presented in Figure 2 is the interface of Textworks.

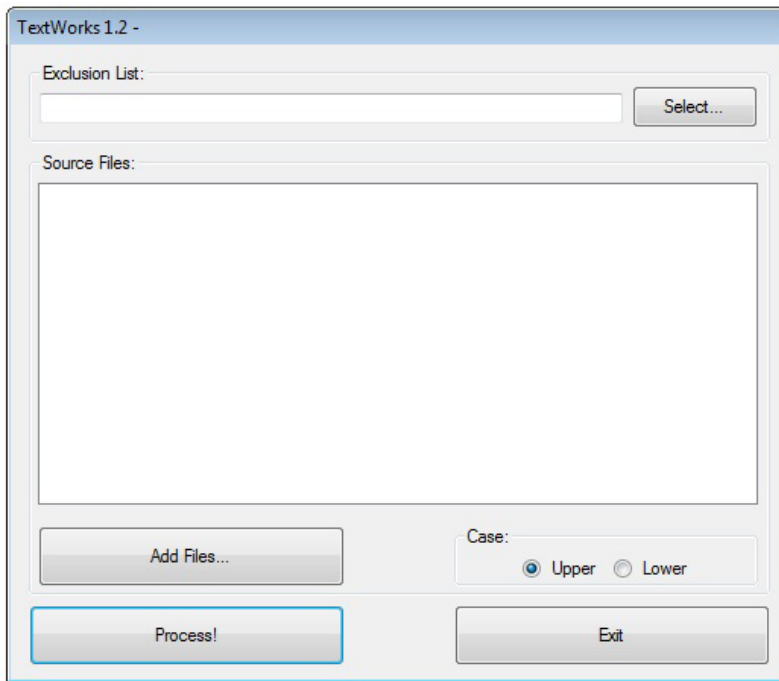


Figure 2. The interface of Textworks

4) After having mostly organized five categorical txt files that are free from numbers, most misspelled words, most abbreviations, most function words, and most proper nouns, another software RANGE (Heatley et al, 2002) was used to generate a frequency list of these txt files in one txt file. All the words in 5 categorical txt files

were grouped and sorted out in an alphabetical order using RANGE. Sample output file from RANGE can be seen in Table 5. In the table, F1, F2, F3, F4, and F5 show the categories in the corpus, “Range” shows how many categories the word exists in and “Freq” shows how many times the word occurs in all categories.

Table 5. Sample Output File From RANGE

TYPE	RANGE	FREQ	F1	F2	F3	F4	F5
ABAJUR	1	2	2	0	0	0	0
ABAKÜS	2	2	0	0	1	1	0
ABAKÜSLERİN	1	1	1	0	0	0	0
ABAKÜSÜ	1	1	0	0	0	1	0
ABANOZ	1	3	0	0	3	0	0
ABANT	1	1	1	0	0	0	0
ABARTABİLİR	1	1	0	0	1	0	0

The RANGE output file has 172156 types of words. It means that 172156 different words having different frequency rates exist in the Academic Corpus.

5) Using RANGE output file to make a wordlist in English would be very easy to make a frequency-based one. As mentioned earlier, grouping the words under lemmas is relatively comfortable in English. Table 6 shows an example of the inflections of a word in English and Turkish:

Table 6. Inflections of The Word “Vehicle” (Araç) in The Academic Turkish Corpus

	Inflections	Total occurrence
English	vehicles	1
Turkish	araçla, araçlar, araçlara, araçlarda, araçlardaki, araçlardan, araçlardandır, araçlardır, araçları, araçlarıdır, araçlarıdırlar, araçlarımız, araçlarımızın, araçların, araçlarına, araçlarında, araçlarındaki, araçlarından, araçlarındandır, araçlarını, araçlarının, araçlarıyla, araçlarla, araçsa, araçta, araçtaki, araçtan, araçtı, araçtır, araçtırlar,	30

The English word *vehicles* is a noun that is inflected for number, specifically to express the plural by adding the suffix *-s*; these two morphemes (*vehicle* and *-s*) together form the inflected word *vehicles*. Since Turkish is an agglutinative language in which extensive use of suffixes is common, it is not surprising to encounter 30 inflections of the word “vehicle” (*araç*) in the Academic Turkish Corpus. Under these circumstances, another computer program was needed to help us connect the words to lemmas. Two computer programmers were asked to develop a web-based program to classify (connecting inflections of a word to a lemma) 172156 tokens (RANGE output file) and an internet-based software called TrLister, which runs on a server, was written for the current study.

Developing TrLister took weeks and the cooperation with the computer programmers was needed in every step while designing the program. Finally a program with the following features came out:

- Content-specific, misspelled, and unwanted words are listed out by clicking on a button next to the words.
- Lemmas are added manually and words are listed under the lemmas by checking the box next to the words and then clicking on the *Add to Root* button.
- Deleted (listed out) words are colored red and words listed under lemmas are colored green. That makes everything easier to understand at a first glance.
- TrLister keeps log and calculates the number of lemmas, the number of words connected to lemmas and the number of excluded (listed out) words.
- After all the words are manually connected to lemmas, TrLister reports all details according to the preferences of the user and gives the results in xls format. The user adjusts minimum and maximum frequency rates of total occurrences of the words, and the number of categories each lemma must exist in. (see Figure 3 below)

The screenshot shows the 'Report' page of the TrLister application. The page is titled 'TrLister' and includes a user greeting 'Welcome md! [Log Off]'. Navigation buttons for 'Home', 'Word List', 'Report', and 'About' are visible. The main content area displays a message: 'You are going to download an excel containing root words which comply following filter:'. Below this message is a form with three columns of input fields. The first column contains filters for 'Minimum Frequency' (1), 'Maximum Frequency' (5), 'Minimum Number of Sub Words' (1), 'Minimum Total Appearance' (1), 'Maximum Total Appearance' (2147483647), and 'Include Subwords' (unchecked). The second column contains five 'Min - Max Appearances In Book' filters for books 1 through 5, each with a minimum of 0 and a maximum of 2147483647, and a 'Has To Appear In At Least' filter set to 1 books and 0 times each. The third column is a text area for excluding words, with a 'Generate' button below it.

Figure 3. Report page of TrLister

f) TrLister can exclude a list of words from the report page. (See Figure 3) (See more for the Technical Specifications of TrLister in Appendix 15)

6) As soon as TrLister was ready to work on a server, the RANGE output file which had 172156 types to be connected to lemmas manually was installed on the program and 3 undergraduate students studying at the Turkish Education Department of Konya Necmettin Erbakan University helped the researcher to associate the 172156 types of words with the lemmas which were typed in manually. There were 8608 pages to be processed on TrLister (see Figure 4 for a sample page), so it took weeks to connect all the words to lemmas.

The screenshot shows the TrLister web interface. At the top right, it says 'Welcome md! [Log Off]'. Below that are navigation buttons: Home, Word List, Report, and About. The main content is a table with columns: Word, X, Root, Total, Frequency, Count 1, Count 2, Count 3, Count 4, and Count 5. The table lists 20 words, each with a checkbox, a root, and various counts. Below the table, there is a section for 'Add selected words to root:' with a text input field and an 'Add to Root' button. Further down, there are statistics for 'Text:', 'Word count:', 'Frequency:', and 'Total Occurrence:'. At the bottom, it shows 'Showing words between 7141 - 7159 of total 172156' and 'Page 358 of total 8608 358' with a 'Go To Page' button and a list of page numbers: < 355 | 356 | 357 | 358 | 359 | 360 | 361 | >>

Word	X	Root	Total	Frequency	Count 1	Count 2	Count 3	Count 4	Count 5
<input type="checkbox"/> ARAŞTIRABLECEĞİ	X	ARAŞTIRMAK	1	1	0	1	0	0	0
<input type="checkbox"/> ARAŞTIRABİLİRLER	X	ARAŞTIRMAK	1	1	0	0	1	0	0
<input type="checkbox"/> ARAŞTIRABİLİRSİNİZ	X	ARAŞTIRMAK	1	1	1	0	0	0	0
<input type="checkbox"/> ARAŞTIRACAK	X	ARAŞTIRMAK	5	3	0	1	3	1	0
<input type="checkbox"/> ARAŞTIRACAKTIR	X	ARAŞTIRMAK	1	1	0	1	0	0	0
<input type="checkbox"/> ARAŞTIRACAĞIM	X	ARAŞTIRMAK	1	1	0	0	0	1	0
<input type="checkbox"/> ARAŞTIRACAĞIMIZ	X	ARAŞTIRMAK	1	1	0	0	1	0	0
<input type="checkbox"/> ARAŞTIRALIM	X	ARAŞTIRMAK	5	2	3	2	0	0	0
<input type="checkbox"/> ARAŞTIRAN	X	ARAŞTIRMAK	64	4	5	0	41	13	5
<input type="checkbox"/> ARAŞTIRANLAR	X	ARAŞTIRMAK	1	1	0	0	1	0	0
<input type="checkbox"/> ARAŞTIRARAK	X	ARAŞTIRMAK	13	4	2	1	2	8	0
<input type="checkbox"/> ARAŞTIRDI	X	ARAŞTIRMAK	2	2	0	0	1	1	0
<input type="checkbox"/> ARAŞTIRDIK	X	ARAŞTIRMAK	1	1	0	0	0	0	1
<input type="checkbox"/> ARAŞTIRDIKLARI	X	ARAŞTIRMAK	4	2	0	0	2	2	0
<input type="checkbox"/> ARAŞTIRDIKLARINDA	X	ARAŞTIRMAK	3	1	0	0	0	3	0
<input type="checkbox"/> ARAŞTIRDIĞI	X	ARAŞTIRMAK	8	2	0	0	7	1	0
<input type="checkbox"/> ARAŞTIRDIĞIMIZ	X	ARAŞTIRMAK	1	1	0	0	0	0	1
<input type="checkbox"/> ARAŞTIRDIĞINIZ	X	ARAŞTIRMAK	1	1	1	0	0	0	0
<input type="checkbox"/> ARAŞTIRICI	X	ARAŞTIRICI	10	3	5	0	1	4	0
<input type="checkbox"/> ARAŞTIRICILAR	X	ARAŞTIRICI	1	1	1	0	0	0	0

Figure 4. A sample page from TrLister

7) After all lemmas were added to the program, it was time to define the rules to pick out the Academic Turkish Wordlist. Frequency (ratio) and range (the number of categories each lemma has to occur) were taken into consideration similar to the other studies in literature [(Coxhead, (2000), Gardner & Davies, (2013), Brezina & Gablasova, (2013)]. On the other hand, there is no concrete way to set up rules to make a wordlist from corpora in the literature. Gardner & Davies (2013) describe the procedure of finding a rule of frequency for their academic wordlist as follows:

There is nothing particularly special about the 1.5 Ratio, as there is no commonly accepted value for this measure. We performed extensive experimentation with values as high as 2.0 and as low as 1.2, and simply observed which words entered into and left the academic core list as we adjusted the values. At too high of a figure

(e.g. 2.0) we would lose words like *system, political, create, require, and rate*, all of which we would argue are representative words for an academic core. On the other hand, if we set the Ratio too low, then we would pull in too many general high-frequency words. (p. 11)

Therefore, the report page of TrLister was used to define the rules and the frequency rate was initially adjusted to 100. It meant that a lemma had to occur at least 100 times in each category. And then other frequencies of occurrence (50, 40, 30, and 20 times) were tested. At the same time, the range (the number of categories each lemma had to occur) was changed to 2, 3, and 4. Range was implemented to make the list free from academic technical words or “those that appear in a narrow range of academic disciplines” (Gardner & Davies, 2013).

The third exclusion list was prepared and the first 300 words from the General Turkish Wordlist were excluded from the Academic Turkish Wordlist. The first 300 words were chosen because they thought to be too general to be included in the Academic Turkish Wordlist.

The main purpose was to have an academic wordlist containing nearly 1000 words. In the end, the frequency rate was defined as 22 and the range was 4, in other words, the words (lemmas) in the Academic Turkish Wordlist occurred at least 22 times in each category and they occurred at least in 4 categories and the first 300 words from the General Turkish Wordlist excluded from the list. Then, some of the words which were thought to be inappropriate in the academic list were cleared out and 1010 words (lemmas) were included in the Academic Turkish Wordlist.

8) In order to present the classes of the words (part of speech) in the General and Academic Turkish Wordlists, PosTagger, one of the TS Corpus Tools (TS Corpus, 2012), was used. Unfortunately, PosTagger can parse the words with a success of 80-82 % (Sezer & Sezer, 2013), so outputs of PosTagger were checked manually.

Generating The Academic Turkish Vocabulary Test

To answer the third research question which was “To what extent do students studying Turkish at Turkish Teaching Centres of universities know the words for academic Turkish?”, a quantitative method was carried out and a vocabulary test was prepared to find out to what extent TFL students know the words for academic Turkish. Nation & Beglar (2007) proposed “*a vocabulary size test*” in which ten items from each 1000 word level existed. Their test consisted of 140 items for the most frequent 14000 word families in English. They chose multiple-choice format based on the following reasons:

- 1 to allow the test to be used with learners from a variety of language backgrounds.
- 2 to control the level of difficulty of the answers. That is each item attempts to tap roughly the same degree of knowledge of a word.
- 3 to make marking as efficient and reliable as possible.

4 to make learners demonstrate knowledge of each item. (p. 11)

Therefore, a multiple choice vocabulary test including 30 items was prepared. The *demographics* section provided data about the age, gender, mother tongue, foreign languages and Turkish background of the participants. 1st, 2nd and 3rd items were from the first 100 word level and 4th, 5th and 6th items were from the second 100 word level and so on. All the sentences and distractors were chosen from the Academic Turkish Corpus derived in this study by the researcher. The distractors were in the same format, so any grammatical knowledge did not help the test takers get the right answer. Before the test was implemented, the draft version of the test was distributed to 20 foreign language instructors to check the items in order to find out whether there were any errors and inappropriate items. Corrections were made and the final version was ready to carry out. Cronbach alpha value was found to be 0.853 in the reliability test performed for the Academic Vocabulary Test. This result indicated that the test was highly reliable. The Academic Turkish Vocabulary Test can be seen in Appendix 5.

Interview With Students

The fourth research question was “Do foreign undergraduate students who previously studied Turkish at Turkish Teaching Centres of some universities need academic Turkish vocabulary instruction to improve their knowledge of Turkish vocabulary so that they can follow academic courses?” As mentioned earlier, the qualitative aspect of the study, which addressed the third research question above, involved qualitative scrutiny of the interview forms to expand and elaborate the quantitative results. A semi-structured interview form was prepared in accordance with the views of the experts in the field. At the top of the paper a few questions were placed asking the participants about their age, gender, nationality, Turkish learning experiences, and the length of the time they have been studying or dealing with Turkish. Based on the purpose of the study, the interview form had seven open-ended questions. Open-ended questions aimed to discover opinions of foreign students studying at universities offering Turkish medium instruction on their knowledge of academic Turkish vocabulary. Most of the interviewees filled in the form in person, and interview forms were distributed to few others to fill in at home and they were collected later. Dörnyei (2007) asserts that semi-structured or unstructured interviews need to be recorded. Moreover, he also claims that many people do not like to be recorded. The interview form was prepared both in Turkish and in English and the participants were asked to feel free to choose either of the languages. (See more for English and Turkish versions of the interview form in Appendix 6 and Appendix 7)

The data gathered from the interviews were saved on the computer after being checked by the interviewees, and their consent was received. Then, the data were analyzed using descriptive analysis and summarized and interpreted through the

themes determined in advance. The aim of the descriptive analysis is to present the findings to the readers in an organized and interpreted way (Yıldırım & Şimşek, 2006). During the data analysis, the data was analyzed together with a different researcher in order to ensure the reliability of the research and the formula (P (agreement percentage) = $(Na$ (Agreement/ Na (Agreement) + Nd (Disagreement)) $\times 100$) which was developed by Miles and Huberman (1994) was used. According to this formula, the reliability between the researchers was found to be 88%, and the qualitative part of the research was accepted as reliable. In addition, the findings were supported by giving examples from the answers of the students by coding them such as P1 (participant 1), P2 (participant 2).

Participants

There are two kinds of participants in the study. The first group of participants consisted of the students learning Turkish at the TTCs of universities with the goal of studying at a Turkish-medium university. The Academic Turkish Vocabulary Test was implemented to this group. They were all at the C1 level and they were asked to answer the Academic Vocabulary Test at the end of their Turkish course. Three different coursebooks were in use at the Turkish teaching centers where the Academic Vocabulary Test was implemented. Table 7 shows the number of participants from Turkish Teaching Centers of various universities in Turkey and the coursebooks used:

Table 7. The Number of Participants and Coursebooks

Universities	Number of participants	Coursebook
Gazi University	70	Gazi Üniversitesi TÖMER
Bolu A.İ.B University	23	Yabancılar İçin Türkçe Seti
Selçuk University	39	İstanbul Üniversitesi Dil Merkezi
Konya N.E. University	27	İstanbul Seti
Karatay University	27	Ankara Üniversitesi TÖMER Yeni Hitit
Niğde University	10	Yabancılar İçin Türkçe Öğretim Seti
TOTAL	196	

There were also 12 participants from Düzce University but they were not included in the study since all of them were Syrian and had a Turkish background.

The age of the first group ranged from 15 to 39 years, with an average of 22 years. They were from 52 different countries (see more in Appendix 8) and nearly all of them knew one or two more foreign languages in addition to Turkish and had been living in Turkey for 9 months.

The second group of participants consisted of 41 second and third grade undergraduate students. Semi-structured interview forms were completed by them. They had been living in Turkey for more than 3 years and all of them studied Turkish

for a year at the Turkish Teaching Centers in the first year. The age of the second group of participants ranged between 20 and 35, with an average of 28 years. They were from 14 different countries and studying Law, Finance, Engineering, History, Medicine and International Relations.

Data Analysis

In addition to an academic corpus development procedures and general and academic wordlist development procedures, both quantitative and qualitative analyses of the data were included in the research since it had a mixed-methods design. The Statistical Package for Social Sciences (SPSS) version 20.0 was used to conduct descriptive statistics (frequency, percentage, the maximum and minimum scores, means, and standard deviations) and reliability analysis of the Academic Vocabulary Test. The qualitative data from interviews was analyzed to elaborate the opinions of the participants. The interview forms were translated for data analysis. The results were organized according to the emerging themes of the interviews and presented in an interpretive narrative style.

FINDINGS AND DISCUSSION

Previous section presented a description of the methods and the tools used in this study to explore the following research questions:

- 1) What is the basic Turkish vocabulary that could be aimed at before starting to learn academic vocabulary in terms of Turkish as a foreign language?
- 2) What are the most frequent academic Turkish words that need to be known in order to be able to follow courses at universities offering Turkish medium instruction in Turkey?
- 3) To what extent do students studying Turkish at Turkish Teaching Centers know the words for academic Turkish?
- 4) Do foreign undergraduate students who studied Turkish at the Turkish Teaching Centers need additional academic Turkish vocabulary instruction to improve their Turkish vocabulary knowledge so that they can follow academic courses?

This chapter will demonstrate the findings on: 1) The General Turkish Wordlist, 2) The Academic Turkish Wordlist, 3) Quantitative research findings (The Academic Turkish Vocabulary Test), and 4) Qualitative research findings (Semi-structured Interviews).

The General Turkish Wordlist

The first 11000 most frequent words from the Turkish National Corpus (Aksan et al, 2013) were chosen to generate the General Turkish Wordlist because the Turkish National Corpus is a balanced and representative Turkish corpus. It also includes “transcriptions from spoken data, which constitute 2% of TNC’s database”, and “the distribution of the number of words in the corpus is determined proportionally for each text domain, time and medium of text following the model of BNC.” Appendix

9 shows the composition of the written component and domains of the Turkish National Corpus.

After all proper names, numbers, abbreviations, letters, misspelled words, and question particles were removed from the first 11000 words of the Turkish National Corpus, the remaining words were grouped by lemma. There were 3614 lemmas and the first 2000 of them were presented as the General Turkish Wordlist in this study. PosTagger, one of the TS Corpus Tools (TS Corpus, 2012), was used to define the classes of the words (part of speech) and the list was also checked manually in terms of the classes of the words since PosTagger can parse the words with a success of 80-82 % (See more for the General Turkish Word List in Appendix 10). Table 8 shows the distribution of the words according to the classes in the General Turkish Wordlist.

Table 8. The Distribution of the Words in the General Turkish Wordlist

	N	%
Verbs	207	10.35
Nouns	1198	59.9
Adjectives	409	20.5
Adverbs	92	4.55
Other	94	4.7
Total	2000	100

In the table above, “Other” indicates conjunctions, pronouns, determiners, interjections, postpositions and slangs. Actually, most of them are function words. The number of these kinds of words is relatively low compared to the content words in the list. The list of the first 100 words of each class (part of speech) can be seen in Appendix 11.

Table 9 compares the first most frequent 10 words from Dictionary of Word Frequency of Written Turkish (Göz, 2003) with Ts Corpus and the General Turkish Wordlist. As it can be inferred from the Table 9, all the words except “*bir*” (one) exist in all lists in similar ranks. The General Turkish Wordlist does not include “*bir*” (one) because it was assumed as a number so it was omitted from the list.

Table 9. Comparison of the First 10 Words

Dictionary of Word Frequency of Written Turkish		Ts Corpus		General Turkish Wordlist	
1	bir	3	Bir	not in the list	bir
2	ve	1	Ve	1	ve
3	olmak	2	Olmak	2	olmak
4	bu	4	Bu	3	bu
5	için	10	İçin	6	için
6	ben	22	Ben	8	ben
7	demek	5	demek	10	demek
8	çok	12	Çok	9	çok
9	yapmak	7	yapmak	7	yapmak
10	ne	28	Ne	14	ne

In order to demonstrate the coverage of the General Turkish Wordlist, the frequencies of the first 1000 words (lemmas) and the second 1000 words were accumulated. Table 10 shows the cumulative number of frequencies of the first and the second 1000 words and the percentages of the words in the General Turkish Wordlist.

Table 10. The Coverage of the General Turkish Wordlist

	N	%
The First 1000 words	23779386	49.54
The Second 1000 words	2319050	4.83
Total (The First 2000 Words)	26098436	54.37

The first 1000 words cover nearly half of the words in the Turkish National Corpus which has 48000000 words. Therefore, it can be assumed that the first 1000 words cover the 50 % of a non-academic text such as a novel or a short story.

The Academic Turkish Wordlist

As explained earlier, a lot of steps needed to be taken in order to generate the Academic Turkish Wordlist and all the procedure took a lot of time to complete. Notably, 57 textbooks were chosen from five different disciplines and an academic corpus containing 4032442 words was formed. After unwanted and misspelled words were excluded from the corpus for the first time, there remained 3415378 words in the Academic Corpus (see Appendix 2 and 3). RANGE software was used to provide a range or distribution figure (how many times the word occurs in five different categories or disciplines) and a frequency figure for each of the texts the word occurs in. The Range output file was used as a databank for TrLister which is a software written for this study to group words by lemmas. There were 172156 different types having different frequency rates in the databank and they were

grouped by lemmas manually. In the end 140349 words were grouped under 15456 lemmas which were typed manually into TrLister and 31807 words were listed out because of either being misspelled words or being content-specific words such as “kardiovasküler”, “karyoplazma” or being proper nouns. Other calculations were done taking into consideration 15456 lemmas.

The main aim was to have an academic wordlist containing nearly 1000 words. Therefore, the frequency rate was defined as 22 and the range was 4, in other words, the words (lemmas) in the Academic Turkish Wordlist occurred at least 22 times in each category and they occurred at least in 4 categories and the first 300 words from the General Turkish Wordlist excluded from the list. Finally, 1115 words (lemmas) were determined, and some of the words which were thought to be inappropriate in the academic list were cleared out and 1010 words were included in the list. Appendix 12 shows the Academic Turkish Wordlist.

It is noteworthy that West (1953) used both a quantitative and a qualitative approach in designing the General Service List. Having said that, the quantitative paradigm is more of usage for the purpose of developing wordlists by practitioners. West’s quantitative approach involved word frequency and his qualitative criteria contained some principles which included: 1) the ease of learning, 2) necessity, 3) cover, and 4) stylistic and emotional neutrality. This qualitative criteria add a great deal of subjectivity into his product. Conversely, Coxhead (2000) selected the words in “The New Academic Wordlist” based on three criteria:

1. Specialized occurrence: The word families included had to be outside the first 2,000 most frequently occurring words of English, as represented by West’s (1953) GSL.
2. Range: A member of a word family had to occur at least 10 times in each of the four main sections of the corpus and in 15 or more of the 28 subject areas.
3. Frequency: Members of a word family had to occur at least 100 times in the Academic Corpus. (p. 221)

In a recent study by Gardner & Davies (2013), “A New Academic Vocabulary List” was developed using these principles: 1) Ratio 2) Range 3) Dispersion 4) Discipline Measure. In another study by Brezina & Gablasova, (2013), developing a core general vocabulary list was targeted by comparing wordlists based on the four corpora (LOB, BNC, BE06, and EnTenTen12). To sum up, a totally quantitative research design is accepted by most scholars in developing general or academic wordlist (Coxhead, 2000; Gardner & Davies, 2013; Brezina & Gablasova, 2013) in literature. Similarly, a quantitative measure of word frequency and range was used in this study. However, listing out 105 words added a slight subjectivity to our study. These words included some erroneous words like *edici*, *profosyonel*, *olunmak* which were misgrouped in TrLister software and some content-specific words like *elektrik*, *elektronik*, *enerji*, *anayasa*, *piyasa*, *hukuk* which had a higher frequency in

one category, and some basic level general words like *hayvan*, *kardeş*, *beyaz*. In fact, these words were excluded objectively.

Table 11 shows the distribution of the words according to their classes (part of speech) in the Academic Turkish Wordlist in comparison with the General Turkish Wordlist.

Table 11. The Distribution of the Words in the Academic Turkish Wordlist

	Academic Turkish Wordlist		General Turkish Wordlist	
	Number of Words	%	Number of Words	%
Verbs	287	28.41	207	10.35
Nouns	496	49.10	1198	59.9
Adjectives	200	19.80	409	20.5
Adverbs	19	1.88	92	4.55
Other	8	0.79	94	4.7
Total	1010	100	2000	100

According to the table above, it can easily be understood that nearly half of the words in the academic wordlist are nouns and more than a quarter of the words are verbs and adjectives are less than verbs in the academic wordlist. However, the percentage of nouns in the general wordlist is higher but the percentage of the verbs in the general wordlist is lower than those in the academic wordlist. The percentages of adjectives in both lists are nearly same (19.80% in academic, 20,5% in general wordlist) and there is a slight difference in terms of adverbs and other kinds of words. The significant difference is between the percentages of the verbs. The percentage of the verbs in the Academic Turkish Wordlist is almost three times higher than the percentage of the verbs in the General Turkish Wordlist.

In order to demonstrate the coverage of the Academic Turkish Wordlist, the frequencies of the lemmas were accumulated. Table 12 shows the frequency and the percentage of words in the Academic Turkish Wordlist. The first 100 words constitute approximately 11% of the Academic Corpus and second 100 words constitute 6% of the corpus. All the words in the list cover nearly one third of the words in the Academic Corpus which has 3415378 words. Therefore, it can be assumed that all words in the list cover approximately one third of an academic text at undergraduate level such as a textbook.

Table 12. Coverage of the Words in the Academic Turkish Wordlist

Words	N	%
0-100	379420	11.11
100-200	203610	5.96
200-300	140395	4.11
300-400	104045	3.05
400-500	80596	2.36
500-600	64420	1.89
600-700	50920	1.49
700-800	40234	1.18
800-900	30835	0.90
900-1010	23158	0.68
Total (0-1010)	1117633	32.71

Table 13 below shows the distribution of the words in the Academic Turkish Wordlist in terms of part of speech. Unsurprisingly, nouns constitute the biggest part of the total tokens of the list and verbs comes next. They together make up the 83% of the total tokens of the list.

Table 13. The Distribution of the Words in the Academic Turkish Wordlist in terms of Part of Speech

	N	Total Tokens	%
Verbs	287	294368	26.34
Nouns	496	628557	56.24
Adjectives	200	161656	14.46
Adverbs	19	15489	1.39
Other	8	17563	1.57
Total	1010	1117633	100.00

Quantitative Research Findings

To answer to the third research question, the results of the quantitative data of the Academic Turkish Vocabulary Test are presented in this section.

The Vocabulary Size Test proposed by Nation & Beglar (2007) had ten items from each 1000 word level and they used only words from the first 1000 of West's (1953) General Service List for the first and second 1000 word levels. Their distractors were the same part of speech as the correct answer. Unlike the Vocabulary Size Test, all items of the Academic Turkish Vocabulary Test were chosen from the Academic Corpus since not only knowing the meaning of the words but also understanding the items (sentences from the Academic Turkish Corpus) was targeted in this study. Items consisted of only one or two sentences from the Academic Corpus. On the other hand, the distractors in the Academic Turkish Vocabulary Test belonged to the

same part of speech with the correct answer in a similar manner with the Vocabulary Size Test.

Before participants started to answer the Academic Turkish Vocabulary Test, they were asked to give their opinions on their Turkish Language Competency using a three-point scale regarding four language skills. Table 14 shows participants' responses for their Turkish Language Competency.

Table 14. Participants' Responses for Their Turkish Language Competency

	What do you think about your Turkish Language Competency?							
	Speaking		Listening		Reading		Writing	
Beginner	16	8%	13	8%	9	5%	12	7%
Pre-Intermediate	108	60%	98	58%	88	53%	107	65%
Advanced	54	30%	57	33%	68	41%	46	28%
Total	178	100%	168	100%	165	100%	165	100%

Although there were 196 participants who answered the Academic Turkish Vocabulary Test, some of them (nearly 10%) did not give their opinions about their Turkish Language Competency. All of them were studying TFL for 9 months and they were using a C1 level coursebook.

In terms of speaking skill, only 8% of students (n=16) expressed that their speaking skill was at the beginner level. Since they had been living in a Turkish speaking environment for nine months, the reason why 16 students thought that their speaking skill was at beginner level could be explained by psychological factors like being introvert or less willing to communicate. 60% of the students thought that their speaking skill was at moderate level and the rest of the students (30%) thought that their speaking skill was at the advanced level.

In terms of listening skill, 8% of the students asserted that their listening skill was at the beginner level and the rest of the students thought that their listening skill was at moderate or advanced level. The findings for the writing skill was nearly the same as the speaking and listening skill (7% beginner, 65% moderate and 28% advanced). The significant difference was between reading skill and others. Merely 5% of the students (n=9) expressed having beginner level reading skill and 53% of the students (n=88) thought that they were at moderate level and 41% of them (n=68) claimed to be at advanced level in terms of reading skill. According to students' opinions for their reading skill it could be hoped that they would get higher scores from the Academic Vocabulary Test since they were studying a C1 level coursebook, and that means they could use language effectively for academic and professional purposes.

The answers of 196 students studying Turkish at the Turkish Teaching Centers with the goal of studying at a Turkish-medium university included in the quantitative analyses of the Academic Vocabulary Test. Table 15 indicates the means and standard

deviations of each individual item in a decreasing order of the means. As seen in the Table 15, three highest mean scores were .80 (Item 3), .73 (Item 30) and .71 (Item 2) and 3 lowest mean scores were .21 (Item 25), and .23 (Item 8), and .26 (Item 24).

Table 15. The Statistical Analysis of the Academic Vocabulary Test Items

	Mean	SD		Mean	SD
Item 3	.80	.40	Item 22	.48	.50
Item 30	.73	.44	Item 1	.47	.50
Item 2	.71	.45	Item 29	.46	.50
Item 13	.65	.47	Item 17	.45	.49
Item 21	.65	.47	Item 14	.42	.49
Item 6	.63	.48	Item 5	.42	.49
Item 10	.60	.49	Item 7	.40	.49
Item 11	.60	.49	Item 23	.37	.48
Item 27	.57	.49	Item 26	.35	.47
Item 28	.57	.49	Item 9	.34	.47
Item 4	.55	.49	Item 16	.33	.47
Item 12	.53	.50	Item 20	.32	.46
Item 19	.52	.50	Item 24	.26	.44
Item 18	.51	.50	Item 8	.23	.42
Item 15	.49	.50	Item 25	.21	.41

Item 3 which tested the word *ihtiyaç* (necessity) had the highest mean score because it is both a frequently used word in the academic corpus and it can also be encountered in everyday speech. Item 30 tested *davranışsal* (behavioral) which is the least frequent word in the vocabulary test. It is the 945th word in the Academic Wordlist. Surprisingly, it had the second highest mean score. This could be explained by having the word *problem* in the sentence (item 30) which collocates the word *davranışsal* (behavioral). Item 3 which tested the word *araştırma* (research) had the third highest score. Similar to item 30, *araştırma* (research) had collocations in the item, which was prepared to test it.

Item 25 had the lowest mean score and this item had been criticized by language instructors who had checked the Academic Vocabulary Test. In the basis of their complaints for this item was that the item tested the figurative meaning of the target academic word *iklim* (climate-atmosphere). Therefore, the sentences in the academic corpus which included *iklim* were analyzed and it was found out that the figurative meaning of the word *iklim* was mostly used in the textbooks. To sum up, the reason as to why item 25 had the lowest mean score, it could be testing the figurative meaning of target word and most of the students were unable to guess the correct answer. Item 8 and Item 24 tested *yürütmek* (execute) and *kanıtlamak*

(prove) respectively. They seem to be typical academic words and the word *yürütmek* (execute) is the 140th word in the Academic Turkish Wordlist and the 1050th word in the General Turkish Wordlist and *kanıtlamak* (prove) exists in the Academic Turkish Wordlist in the 745th place.

Table 16 indicates that students demonstrated a moderate level of achievement in the Academic Turkish Vocabulary Test.

Table 16. The Academic Vocabulary Test

	N of Items	Mean	%
AVT	30	14,7551	0.49

Participants answered nearly half of the test items correctly. This result reveals the fact that students could know approximately half of the words in The Academic Turkish Wordlist. However, for the sufficient comprehension level, which is 71% according to Hu and Nation (2000) and 68% according to Schmitt et. al. (2011), participants are required to have vocabulary knowledge that covers at least 98% of the text and in our study 196 students' average vocabulary knowledge seemed to be below 50%.

The six universities where the research was carried out employed three different Turkish course books. Every two university used the same set of books to teach Turkish to the foreign students. The main coursebooks which were put into use are as follows accompanying with the number of the students who participated in the research:

1. Gazi Üniversitesi TÖMER Yabancılar İçin Türkçe Seti (n=93) (henceforth Gazi Series)
2. İstanbul Üniversitesi Dil Merkezi İstanbul Seti (n=66) (henceforth Istanbul Series)
3. Ankara Üniversitesi TÖMER Yeni Hitit Yabancılar İçin Türkçe Öğretim Seti (n=37) (henceforth Ankara New Hitit Series)

The success rate of the students who used Gazi Series was 42%, which seems to be moderate regarding the Academic Turkish Vocabulary Test. The achievement rate of the participants who were instructed through Ankara New Hitit Series was almost the same and were reported to be 39%. Nevertheless, the universities in which the students had used Istanbul Series books accomplished a higher rate of success and turned out to be 63%. This report indicates that 34% of the participants (n:66) taking Turkish lessons in their classes were higher achievers. Thus, the findings shown in Table 17 shows that only the competency of the students who employed the İstanbul Series were closer to the sufficient comprehension level. Hu and Nation (2000) identified students at the level of 68% and above as ones possessing sufficient comprehension level. However, assuming the yardstick as that of the Schmitt and et

al's (2011) the target seems far from available. They most recently designated the definition for the above mentioned level as 71% with a vocabulary knowledge that covers at least 98% of the text.

Table 17. Coursebooks Used at The Turkish Teaching Centers

	N	Mean	SD
Gazi Series	93	.4258	.15410
Istanbul Series	66	.6379	.20042
Ankara New Hitit Series	37	.3973	.20748
Total	196	.4918	.20865

The results and findings reported above can be a consequence of different factors and cannot be justified as the quality of the course books. Some other elements can be found influencing the learning process namely, the class atmosphere, school educational policies and whether the students did the test themselves or in company of others. The ANOVA results of the current analysis engaging the three different course books in terms of the student performance is given below in Table 18.

Table 18. The ANOVA Analysis of the Coursebooks

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	2.144	2	1.072	32.604	.000
Within Groups	6.345	193	.033		
Total	8.489	195			

According to the table above a significant difference can be seen among the three sets of books in terms the students' performance. The details regarding the multiple comparisons made among the groups are given in Appendix 14.

Qualitative Research Findings

In this section, a qualitative description of the findings explored by qualitative method and tool (semi-structured interviews) will be presented to answer the following research question:

-Do foreign undergraduate students who previously studied Turkish at TTCs need academic Turkish vocabulary instruction to improve their knowledge of Turkish vocabulary in order to follow academic courses?

The qualitative aspect of the study, which addressed the fourth research question above, deals with qualitative scrutiny of the interview forms to expand and elaborate the quantitative results of the research. In this chapter, the results are organized according to the emerging themes of the interviews, and presented in an interpretive narrative style.

There were four emerging themes from the interviews and the finds regarding these themes are explained below on an individual basis:

- 1) How do students evaluate themselves in terms of reading comprehension?
- 2) How do students evaluate themselves in terms of understanding the lectures and the assignments?
- 3) How do the students self evaluate themselves in communicating in Turkish on and off the campus?
- 4) How did the students explain the difficulties they encountered in a university with Turkish as the medium of instruction?

How Do Students Evaluate Themselves In Terms Of Reading Comprehension?

When the students were asked about whether they understood what they had read in such Turkish materials as short stories, novels, newspapers, they claimed that they were overall capable of understanding what they read although their reading comprehension level was supposed to be below the desired level (according to the quantitative results of the current study). They asserted that they were able to read simple texts and the ones which did not contain unknown words more comfortably and added that they gradually improved their reading skills.

Furthermore, 15 students claimed that they completely understood what they read, and one participant said that he did not understand what he read. The participants who were able to understand completely what they read chose moderate or advanced level for four skills when they were asked “How well do you use Turkish?” in terms of four language skills, and the participant who said that he did not understand what he read stated being beginner level in each language level. Some of the participants’ responses are given below:

P1 If the content includes normal and clean sentences and simple words, I can understand.

P11 Yes, Sometimes I read story books in my leisure time. But, I had a lot of trouble in the first year. Thank God, I know better now. I can easily solve my problems and I am still solving my problems.

P31 I almost understand but I do not know special expressions so I have to look them up in the dictionary. Moreover, the foreign words from western languages

P2 I understand quite well

P33 No. Because it is too difficult. I cannot understand. I cannot read.

When students were asked to make a judgment on their understanding of textbooks, 17 of them stated that they were able to understand the textbooks (they used some expressions like *in an advanced level, mostly, and 80% or 90%*). Five of the participants stated that they had difficulty in understanding their textbooks. Their Turkish competency was either at a beginner or a moderate level. The general

view of all the participants was that the students had mixed feelings regarding understanding the textbooks. From among the students who stated that they were able to understand their textbooks completely, there were ones who said that they had difficulty in understanding foreign words or some certain words. The students expressed that they did not know all the words in their textbooks and used dictionaries to understand. Moreover, they admitted that they gradually understood more since they spent a lot of time on their textbooks. Some of the students responded as follows:

P13 Sometimes I do not understand my textbooks at all since they are too difficult. Everything is also new for me.

P27 Yes. I understand my textbooks better than other books. I hardly encounter unknown words.

P37 I moderately understand. I do not know 60-70% of the words. The terms in textbooks are too difficult for me.

P41 Yes. But not much. I do not know all the words.

It is possible to conclude that the students had a moderate level of reading comprehension skill. This finding also supports the quantitative results of the study. The students' expressing their ability in understanding the self-study materials and the activities they did which engaged them in reading for pleasure implies the fact that the more they feel stimulated to learn to satisfy their inner feelings the better they can understand the passages. This feeling seems to be justifiable even for the case of native speakers of any language, where they could admit they are capable of understanding any text they are keen on without any difficulty. People would feel easy reading and understanding a text where they enjoy doing so which can also be called a bed-time reading per se.

However, the number of the students who reported to be struggling to comprehend the text was not rather noticeable (5 out of 41). This is conclusive to the fact that after three painstaking years of learning textbook contents it seems rather predictable that they will not have trouble in mastering the terminologies. However, from among them, there could be found some people who complained about a number of words which were challenging to them.

How Do Students Evaluate Themselves In Terms Of Understanding The Lectures And The Assignments?

During the interviews, the students were asked whether they understood the lectures given by their professors. Taking into account the responses for the question "Do you understand your lecturers?", it is possible to say that the participants generally understand their lecturers. They expressed that their lecturers' way of talking was understandable when they took the professors' speaking speed for granted. They said that they improved their listening skill through watching

movies, communicating with friends, listening to music and reading books. Only 2 students said that they did not understand their lecturers at all and 6 students said they moderately understood and had little difficulty in understanding. Some of the responses are given below:

P1 Yes, at a level of 85%. It depends on the pronunciation and the speaking speed of the lecturer. At the same time, it also depends on my prior knowledge about the topic in some specific lectures.

P13 Sometimes I understand, sometimes I do not understand my lecturers at all. So I sometimes have problems. It is difficult to understand lectures in foreign language.

P38 No, I do not understand much.

Additionally, students were asked whether they had any difficulties in preparing projects or answering the exam paper (mid-term or final exam paper) in Turkish in terms of language. Only 6 students expressed that they did not have any difficulties in preparing projects or in completing exam papers. These students also added that they had had difficulty before but gradually they got used to it, and then they could overcome the problem. Other students said that they had problems regarding exams and projects. They mentioned these problems as vocabulary insufficiency, sentence formation problems, time management problem due to difficulty in reading comprehension, failure in understanding the questions, being Latin alphabet ignorant, and sluggish writing. Moreover, the students had less difficulty in preparing assignments because of the assistance they received from their circles and friends around. Some of their responses are brought here:

P10: I don't understand some questions in examinations. Besides, I leave them blank. Since there are words that I do not know. I understand some questions only partially.

P05 Foreign students experience problems in written exams. Turkish language is such a difficult language to write in.

P15 I remember the time when I first entered the classroom and I had big problems in writing. I was able to resolve them over time though.

They maintain that although they have such a slight difficulty in understanding the lecturers, they cannot express themselves as they are supposed to during the exams. This finding implies that the students have more difficulties in writing than in communication orally. This can lead the research agendas to investigations in written mode as opposed to the spoken mode which is more common and has become a household research in SLA field.

There are some points that can be hypothesized in regard to difficulties students have in listening comprehension. Students have particularly got this problem in their second or foreign language. People are able to comprehend a conversation on

a noisy street in their mother tongue; however, they seem unable to transfer that skill comfortably to a second language. One way of tackling this problem is to show the foreign learners of Turkish how to spot the important words that they will encounter during listening. This is recommended to be done when they are taking lessons earlier when preparing them for the undergraduate programs. Nevertheless, this is feasible by incorporating “The Academic Turkish Wordlist” and “The Academic Corpus” into mainstream education.

How Do The Students Self Evaluate Themselves In Communicating In Turkish On and Off The Campus?

Firstly, the students were asked about their experiences regarding their in-class communication in Turkish with their peers and teachers. Some students (n=10) reported that they experienced a lot of difficulties in communicating in Turkish language in the classroom. To put it generally, these drawbacks were admitted in the following areas: understanding what is heard but unable in verbalizing what they needed to utter, having fluent communicative relationship with their peers but having an inhibitive relationship with their lecturers and trouble making accurate sentences. The other students reported having troubles in communication every now and then but not any serious break-downs in communication in total. Some of their responses are:

P11 I am bad at communicating with others. Moreover, I am not a sociable person.

P16 I understand the person I'm talking to pretty well but I cannot recall some of the words immediately when I want to speak so I sometimes have difficulty.

P18 Yes, especially with friends. However, I have problems with my lecturers regarding pertaining to the subject matter. We ask questions but the lecturer does not understand or he/she asks but we do not understand.

P34 Yes. I am able to communicate. Since the students in class are Turkish, I communicate using the same language and ask my questions.

Students were also asked about their experiences regarding their communication in Turkish in friendly atmospheres outside the classroom. 7 students expressed that they were unable to communicate because of various reasons namely, preferring English or another language, acting in accordance with the situation they are in, and having troubles in communicating using Turkish. Other students said that they were able to communicate in Turkish although they had various problems. Some of their responses are brought here:

P12 I say “Hi” and start the conversation. Yes, I am able to communicate. I chat with others.

P15 I can communicate in every context whether in a social environment or not.

P14 Yes, I can. However, I am sometimes unable to communicate with some people since I do not have a good mastery of Turkish.

P33 No, because I feel unqualified when it comes to talk to them.

It can be concluded that students are successful in communicating through Turkish language in and out of the classroom although they have some kind of difficulties. It goes without saying that every time in the past-related literature, foreign language learners have most problems in producing speech rather than comprehending. However, the fact that they are more comfortable talking in Turkish outside the classroom rather than inside the classroom is more related to their learning experience they had in the community. The learners spent most of their time in the settings which are informal and which are not educational like the conversations they had in the cafes or in the street.

How Did The Students Explain The Difficulties They Encountered In A University With Turkish As The Medium of Instruction?

Finally, students were asked about what kind of difficulties they encountered studying at a university offering Turkish-medium instruction. Some students (n=6) stated that they did not have any difficulties and added that they were able to overcome the difficulties in time.

By the time responses of other students are examined, it can be understood that they have problems due to having a low mastery of Turkish though there is a wide variety of statements:

Table 19. Problems Encountered by the Students

Students' Statements	N
Hearers' inability to understand me	3
Inability to ask lecturers questions	3
Low mastery of the language	3
Inability to understand the lecturer	2
Inability to understand the text when read	2
Unknown words	2
Having problems in the exams	2
Spending too much time for understanding the subject matter	2
Writing	2
Inability to read books/textbooks	2
Pronunciation	1
Inability to learn by heart	1
Inability to follow Turkish resources	1
Inability to do research	1

Inability to understand lectures	1
Spending too much time for reading comprehension	1
Polysemous Words	1
Inability to understand the speaker	1
Low mastery of grammar	1
Turkish is a difficult language	1
Inability to understand the concepts	1
Afraid of being made fun of	1
Feeling like an outsider	1
Cultural differences	1

3 students explained that they were afraid of being made fun of and would feel alienated partly due to the cultural differences. In fact, it can be thought that having low mastery of Turkish lies at the bottom of their problems. Some of the participants responded as follows:

P17 Before I began to study in my department, I spent a year in order to learn Turkish and another year to learn English as compulsory preparation courses. Therefore, I tried to learn Turkish for two years in Turkey and I do not have any problems regarding Turkish language. If I had learned Turkish for only one year, I could not have understood both my lecturers and my textbooks. I would certainly fail the class. My friends who have studied at the Turkish Teaching Centers have a lot of problems.

P16 Since I have difficulty in speaking, I prefer being silent. Sometimes I cannot even ask my lecturers any questions. Because my friends will laugh at me if I make an error in speaking.

P30 Only language. Since we are foreigners we have a lot of difficulty. For example, if a Turkish student study for 5 hours, I am not able to study like him/her in 5 hours. Unfortunately, we try a lot to understand what we are supposed to but sometimes we go crazy because we do not understand some parts of it.

CONCLUSION

The aim of this study has been to make a research on the academic vocabulary in Turkish as a foreign language. In order to answer the first research question “What is the basic Turkish vocabulary that could be aimed at before starting to learn academic vocabulary in terms of Turkish as a foreign language?”, prior corpus studies in Turkish were reviewed beforehand and the frequency list of the Turkish National Corpus (Aksan et al, 2013) was used to create the General Turkish Wordlist. Afterwards, proper names, numbers including ordinal numbers and years, abbreviations, letters and misspelled words, question particles, and exclamations were cleared out from the frequency list of Turkish National Corpus (Aksan et al, 2013), remaining words were grouped by lemmas and a general wordlist containing 2000 words was reached. The frequency list of the Turkish National Corpus (Aksan et al, 2013) also served as a basis to form exclusion lists containing proper names, numbers including ordinal numbers and years, abbreviations, letters and some misspelled words, question particles, exclamations and the frequent words that were peculiar to general Turkish rather than academic language. These exclusion lists were used to develop an academic wordlist which would answer the second research question: “What are the most frequent academic Turkish words that need to be known in order to be able to follow courses at universities offering Turkish medium instruction in Turkey?”. An academic corpus derived from fifty-seven textbooks was formed so as to discover the Academic Turkish Wordlist. There were 4032442 tokens in the academic corpus and various computer software programs some of which were written for the current study were used in order to acquire an academic wordlist and 1010 words were included in the final version of the Academic Turkish Wordlist. To answer the third research question: “To what extent do students studying Turkish at the Turkish Teaching Centers know the words for academic Turkish?”, the Academic Turkish Vocabulary Test was created for the purpose of revealing the knowledge level of TFL students regarding the Academic Turkish Wordlist and the statistical findings of the vocabulary test were analyzed. Second and third year undergraduate students were interviewed using a semi-structured interview form to answer the last research question: “Do foreign undergraduate students who studied Turkish at the Turkish Teaching Centers need academic Turkish vocabulary instruction to improve their Turkish vocabulary knowledge in order to follow academic courses?”. Quantitative data from the interviews were also analyzed under four themes in the previous chapter.

Discussions

The General Turkish Wordlist

To put it in a nutshell, the General Turkish Wordlist consisted of 2000 words and the first 1000 words covered 49% of the Turkish National Corpus (Aksan et al, 2013) and the total words in the list covered more than the half of the corpus (54%).

However, Brezina & Gablasova (2013) cited that West's list (General Service List) (West, 1953) covered more than 80% of the *Lancaster-Oslo-Bergen Corpus*, *The British National Corpus*, *The BE06 Corpus of British English* and *EnTenTen12* on an individual basis. This situation was the same for New-GSL (Brezina & Gablasova, 2013). It should be noted here that, there were 4114 lemmas (2000 word families) in West's list and 2494 lemmas in New-GSL. This factor could account for at least some of the difference mentioned above. Another factor could be that the first most frequent 11000 words were used to develop the General Turkish Wordlist. Inflections of some of the words in the list might be outside of the first 11000 words so the frequencies of these words were not included in the cumulative coverage of the General Turkish Wordlist. Last but not least, linguistic structure of the two languages (English and Turkish) could account for the most part of the aforementioned difference. In English, every sentence needs a subject and most of them contain prepositions, auxiliary verbs, and determiners. On the other hand, in Turkish, only a word could convey the meaning of a sentence by adding suffixes to the word, which can be expressed by using several different words in English. This linguistic difference could explain the high coverage of general wordlists in English.

The Academic Turkish Wordlist

In order to create an academic wordlist, fifty-seven textbooks were chosen from five different disciplines and an academic corpus containing more than four million words was formed. Various computer software programs some of which were written for the current study were used in order to acquire an academic wordlist and 1010 words were included in the final version of the Academic Turkish Wordlist.

The main purpose was to have an academic wordlist containing nearly 1000 words. In the end, the frequency rate was defined as 22 and the range was 4, in other words, the words (lemmas) in the Academic Turkish Wordlist occurred at least 22 times in each category and they occurred at least in 4 categories and the first 300 words from the General Turkish Wordlist were excluded from the list. Then, some of the words which were thought to be inappropriate in the academic wordlist were cleared out and 1010 words (lemmas) were included in the Academic Turkish Wordlist.

The Academic Turkish Wordlist covered 32% of the academic corpus. However, Gardner & Davies (2013) stated that their academic wordlist (A New Academic Vocabulary List –AVL) covered 13.8% of the academic portion of COCA (an American corpus, from which the AVL was derived) and it also covered 13.7% of the academic portion of BNC (a British corpus, which was not used in the creation of the AVL). They also claimed that Coxhead's academic Wordlist (2000) covered 7.2% of the academic portion of COCA and 6.9% of the academic portion of BNC. Comparing the Academic Turkish Wordlist with the other academic wordlists in

English (AVL and AWL), it is evident that the coverage of the Academic Turkish Wordlist is a far-reaching one when compared to others.

One of the factors that account for some of the difference is the design of the wordlists. The Academic Turkish Wordlist had 1010 lemmas, which only had the inflections of the words, but a word family design was used to calculate the coverage of the other lists (AVL and AWL) and they consisted of 570 word families individually. Another factor could be that the academic corpus in the current study consisted of only textbooks, which were prepared for undergraduate programs. Therefore, the author's style and wording did not vary much, so the coverage of the Academic Turkish Wordlist is more than the coverage of other lists (AVL and AWL).

Knowledge Level of Students Regarding The Academic Turkish Wordlist

To answer the third research question, which was "To what extent do students studying Turkish at Turkish Teaching Centers know the words for academic Turkish?" a quantitative method was carried out and a vocabulary test was prepared to find out to what extent TFL students know the words for academic Turkish. It was a multiple choice vocabulary test including 30 items. All items of the Academic Turkish Vocabulary Test were chosen from the Academic Corpus since not only knowing the meaning of the words but also understanding the items was targeted in this study. Items consisted of only one or two sentences from the Academic Corpus. On the other hand, the distractors in the Academic Turkish Vocabulary Test belonged to the same part of speech as the correct answer in a similar manner with The Vocabulary Size Test.

The quantitative results indicated that the overall vocabulary knowledge of the participants regarding the Academic Corpus was 0.49%. However, for the sufficient comprehension level which is 71% according to Hu & Nation (2000) and 68% according to Schmitt et. al. (2011), participants are required to have vocabulary knowledge that covers at least 98% of the text and in our study 196 students' average academic vocabulary knowledge levels seemed to be below 50%. This percentage does not cover students' vocabulary knowledge regarding general words. However, it should be noted here that the Academic Turkish Wordlist covered 32% of the Academic Corpus, so knowing the most of the general Turkish words and half of the academic wordlist is still beyond the sufficient comprehension level that requires having the vocabulary knowledge that covers at least 98% of a text.

Needs Analysis For Additional Academic Vocabulary Instruction

The qualitative aspect of the study, which addressed the third research question, dealt with the qualitative scrutiny of the interview forms to expand and elaborate the quantitative results of the research. Consequently, the qualitative results of the study made the following cases known to the researcher:

- a) How the students evaluated themselves in terms of reading comprehension
- b) How the students evaluated themselves in terms of understanding the lectures and the assignments
- c) How the students self-evaluated themselves in communicating in Turkish on and off the campus
- d) How the students explained the difficulties they encountered in a university with Turkish as the medium of instruction.

In terms of reading comprehension (a) it is possible to conclude that the students had a moderate level of reading comprehension skill regarding both reading for pleasure (this also includes short stories, novels, newspapers) and reading academic texts, especially textbooks. This finding also supports the quantitative results of the study.

With regard to reading academic texts, which is the main concern of this study, less than half of the students (n:17) stated that they were able to understand textbooks. After three meticulous years of trying to comprehend the textbook contents, it seems rather predictable that they will not have trouble in mastering the terminologies. However, from among them, there were some who complained about a number of words which were challenging to them. Students' low level of academic vocabulary accounts for most of this problem and another reason may have resulted from individual factors, namely, having a low level of reading comprehension, studying at an undesired undergraduate program, unwillingness to spend time reading or improving reading skills, etc.

The findings also revealed that the students have more trouble in writing than in oral communication (b). Surprisingly, quantitative results indicated that students' overall listening skills were sufficient to understand their professors regarding academic undergraduate lectures. Actually, they had been living in Turkey for at least three years. Learning the target language where it is spoken facilitates *passive learning*, *accent training* and *acquiring the skill intuitively* and it could also have helped them improve their listening skills. In this sense, some of the students said: "It was very difficult to understand everything at first, but there have remained no problems as the years passed by." In spite of having moderate listening comprehension skills, students admitted that they were unable to express themselves as they were supposed to during the exams and they mentioned their problems as vocabulary insufficiency, sentence formation problems, time management problems due to difficulty in reading comprehension, failure in understanding the questions, having no prior knowledge of the Latin alphabet, and sluggish writing. These drawbacks could be remedied through academic Turkish courses focusing on reading comprehension, academic writing and academic vocabulary instruction.

It seems that students are successful in communicating through Turkish in and out of the classroom (c) although they have some kind of difficulties. Living in

the country where the target language is spoken and operating solely in the target language might result being comfortable in speaking Turkish.

From the responses regarding the difficulties students studying at a university with Turkish as the medium of instruction encountered (d), it can be understood that there is a wide variety of statements and their problems mainly result from having a low mastery of Turkish and from psychological or individual factors.

Conclusion

Being a corpus study, the current research study examined academic vocabulary in Turkish as a foreign language and it had four components: 1) generating the General Turkish Wordlist using the frequency list of a Turkish corpus 2) generating the Academic Corpus from textbooks and the Academic Turkish Wordlist 3) finding out the knowledge level of students regarding the Academic Turkish Wordlist 4) needs analysis for additional academic vocabulary instruction.

The General Turkish Wordlist consisted of 2000 words. The first 1000 words cover nearly half of the Turkish National Corpus, which consists of 48 million words. Therefore, this wordlist could help language practitioners, syllabus designers or material developers define where to start or which words should be taught first or later. Gairns & Redman (1986) pointed out that “The high frequency of an item is no guarantee of usefulness, but there is obviously a significant correlation between the two so it is worth examining some of the work on frequency word-counts that has been carried out over recent decades.” (p. 58).

1010 words were included in the Academic Turkish Wordlist and they covered nearly one third of the Academic Turkish Corpus, which was compiled from 57 textbooks. It is evident that knowing the words in the academic list will help undergraduate foreign students with the goal of studying at a Turkish-medium university improve their academic language skills, especially reading comprehension.

The quantitative results indicated that the overall vocabulary knowledge of the participants regarding the academic corpus was below the desired level. In-session academic language courses, where students study while they are already attending an academic course or pre-session academic language courses, where students take the course before they go on to further academic studies could help them develop academic language skills efficiently. While subject specific academic language courses for the students learning Turkish as a foreign language seem to be cost-inefficient, common core academic language courses seem to be more feasible since foreign students study various subjects and grouping them under a common core academic language course is easier. If possible, pre-session common core academic language courses and in-session subject specific academic language courses are strongly suggested.

Scrivener (2011) stated that an academic language course is likely to include work on some of these elements:

- Listening to and understanding lectures
- Note-taking
- Effective reading and researching
- Raising awareness of formal styles of language used in academic writing
- Essay writing
- Generic academic language points
- Academic stylistic conventions
- Making presentations
- Taking part in seminar discussions
- Learning to learn
- Contextual and cultural awareness (p. 315)

These elements are consistent with the problems which emerged from the qualitative results of the study. It was discovered that students' problems mainly resulted from having a low mastery of Turkish and academic language courses offering academic course materials would fill in this gap. Stubbs (2001) concluded that:

Corpus study shows that language use is much more highly organized than previously suspected. It is governed, not by the kinds of categorical rules that linguistics has often dealt with, but by tendencies and probabilities. Only with large corpora and appropriate software is it possible to observe repeated patterns across the language use of many speakers and writers (p. 242)

Therefore, practitioners could utilize the General and Academic Turkish Wordlists developed in this study in various ways: 1) to choose the words for beginner level students as a starting point 2) to check out language learning materials in order to find out how many low/high frequency words (general or academic) they contain to find out the appropriateness of the material for the vocabulary level of their students 3) to compare students' writings in terms of how many academic words they are able to use 4) to prepare proficiency exams 5) to revise their language program in order to include more academic words to prepare their students for undergraduate programs.

Pedagogical Implications of The Study

Whereas this study did not explore the instruction of academic words, the results are suggestive in terms of C1 level Turkish learners' knowledge level of academic words. They lead to four pedagogical implications for the need of additional academic vocabulary instruction. First, C1 level Turkish learners need more exposure to academic words before they begin to study at their undergraduate program since they have a moderate knowledge level of academic words in Turkish. Second, Turkish learners may need explicit instruction on how to effectively use

academic words in writing. Academic texts should be provided to students to be used as models for their own writing since undergraduate students have great difficulty in written examinations. Third, they need more exposure to and practice with academic words in terms of improving their reading comprehension skills. Lastly, practitioners should be aware of the individual factors that might cause communication breakdowns.

Theoretical Implications of The Study

According to “*The Languages for the Future report*”, Turkish is one of the ten languages (Spanish, Arabic, French, Mandarin Chinese, German, Portuguese, Italian, Russian, Turkish and Japanese) which emerge as the most important for the UK over the next 20 years (British Council, 2014). These languages, which were thought to be the most vital to the UK, were chosen based on “economic, geopolitical, cultural and educational factors including the needs of UK businesses, the UK’s overseas trade targets, diplomatic and security priorities, and prevalence on the internet”. Therefore, it is important to find out the effectiveness of teaching Turkish as a foreign language at the Turkish Teaching Centers since the main goal of these institutions is to prepare learners for their studies at Turkish medium graduate or undergraduate programs. From a theoretical perspective, this study addresses the need for additional academic vocabulary instruction for learners of Turkish in terms of reaching the sufficient comprehension level and that the Academic Turkish Wordlist developed from the Academic Corpus compiled from textbooks could serve as a unique source for academic Turkish courses and course materials and it can also be used for further research in the field.

Limitations of The Study

While several billion words of English are scanned in The Cambridge English Corpus, The British National Corpus (BNC) is a 100 million word collection of samples of written and spoken language from a wide range of sources, designed to represent a wide cross-section of current British English, both spoken and written (<http://www.natcorp.ox.ac.uk/>). On the other hand, nearly 50 million words are scanned in the Turkish National Corpus, which is considered to be efficient enough for the current study in order to make up a general Turkish wordlist. Therefore, the first most frequent 11000 words of Turkish National Corpus were used to develop the General Turkish Wordlist.

Fifty-seven textbooks from the E-Learning Portal of Anadolu University were used to develop the Academic Corpus. Because the study participants consisted of undergraduate students and students studying at Turkish Teaching Centers, only textbooks were used to make up an academic corpus. The words in the academic wordlist may differ when they are collected from another corpus derived from another source.

Lemmas, or the groups of lexical forms with the same stem that belong to the same word class (Francis & Kucera, 1982) were used for the creation of the General Turkish Wordlist and the Academic Turkish Wordlist. They are understood by learners as follows: words with the same base and inflections are members of the same word family as defined by Level 2 of Bauer and Nation's (1993) scale. Further research can focus on the next level (Level 3) in which words are considered as members of a single lexical unit provided that they have the same base and contain inflections and/or derivational affixes. This level contains suffixes such as *-able*, *-er*, *-ish*, *-less*, *-ly*, *-ness*, *-th,-y*, *non-*, and *un-*. However, it should be found out how much learners of Turkish are aware of these suffixes at first, and then further research can focus on the following level.

Forty-one undergraduate students and two hundred and eight students studying at Turkish Teaching Centers of seven different universities (the total number of participants was 249) participated in the study. Thus, it may not be appropriate to generalize the results to all students studying Turkish as a foreign language.

All the items (n=30) asked and distractors to these items in the Academic Turkish Vocabulary Test were from the Academic Corpus, which was developed for this study and this test was used to evaluate the knowledge level of students regarding the Academic Turkish Wordlist.

Suggestions For Further Research

It is logically expected that the research on this field is still immature and there are still vast areas that have not been yet taken into consideration since this is one of the few studies of its kind conducted on the academic vocabulary of students of Turkish as a foreign language via a corpus-based approach.

In view of the previous remarks, further research is definitely needed to:

- 1) develop a comprehensive academic Turkish corpus which includes various academic texts from various domains,
- 2) develop academic and general corpora in which all the words are tagged regarding stems, affixes, domains and frequencies of the words,
- 3) investigate lexical and grammatical collocations in general and academic corpora as well as learners' free writing,
- 4) create a dictionary of the problematic words that foreign students of Turkish are likely to encounter at different phases of their second language mastery,
- 5) build a syllabus that meets learners' lexical needs regarding academic Turkish vocabulary in the light of corpus studies,
- 6) examine the TFL (Turkish as foreign language) coursebooks in terms of their effectiveness on preparing students for their undergraduate and graduate studies,

- 7) develop a corpus-based academic Turkish learner's dictionary including the frequency of the words and the morphological and collocational information of its items
- 8) focus on the reasons why foreign students studying at a university offering Turkish medium instruction have great difficulty in examinations.

Corpus-based research can be conducted when a corpus is formed based on input from various domains and sources. Applying corpus analysis to vocabulary instruction would also be beneficial for improving the vocabulary knowledge of the students and a good example for this is using concordances. Using a concordance, specific functions could be utilized, such as word frequency, sorting to find patterns, collocational patterns and tracking distribution in texts. Furthermore, future studies could focus on corpus-based analysis in Turkish after a large, balanced Turkish Corpus like COCA or BNC which gives detailed information about its tokens is constructed.

As for curriculum and syllabus designing, it is sufficiently evident from the current study that Turkish learners need additional in-sessional and/or pre-sessional academic vocabulary instruction. Therefore, practitioners, syllabus designers and coursebook writers should benefit from corpus studies and the general/academic wordlists generated in this study.

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APPENDICES**Appendix 1 The list of words which was excluded from the General Turkish Wordlist**

1	bir	35	musunuz	69	24	103	50
2	bire	36	muydu	70	25	104	500
3	birer	37	muyum	71	250	105	51
4	birinci	38	muyuz	72	26	106	52
5	birincil	39	mü	73	27	107	53
6	birincisi	40	müdür	74	28	108	54
7	çoluk	41	ta	75	29	109	55
8	da	42	tir	76	3	110	56
9	dan	43	veveya	77	30	111	5-6
10	de	44	ye	78	300	112	57
11	den	45	1993	79	31	113	58
12	di	46	1994	80	32	114	6
13	ikimiz	47	1995	81	33	115	60
14	ikincil	48	1996	82	34	116	600
15	imiş	49	1997	83	3-4	117	64
16	la	50	1998	84	35	118	65
17	le	51	1999	85	36	119	68
18	mı	52	2	86	37	120	7
19	mıdır	53	20	87	38	121	70
20	mısın	54	200	88	39	122	700
21	mısınız	55	2000	89	4	123	72
22	mydı	56	2001	90	40	124	75
23	myım	57	2002	91	400	125	8
24	myız	58	2002'de	92	41	126	80
25	mi	59	2003	93	42	127	800
26	midir	60	2004	94	43	128	85
27	misin	61	2005	95	44	129	9
28	misiniz	62	2006	96	45	130	90
29	mydi	63	2007	97	4-5	131	95
30	myım	64	2008	98	46	132	aaa
31	myız	65	21	99	47	133	ab
32	mu	66	22	100	48	134	abbas
33	mudur	67	23	101	49	135	abd
34	musun	68	2-3	102	5	136	abd'de

137	abd'deki	175	amerikalı	213	avrupalı	251	bozkurt
138	abd'li	176	amerikalılar	214	avrupa'nın	252	brezilya
139	abd'nin	177	amerikan	215	avrupa'ya	253	britanya
140	abdullah	178	amerika'nın	216	avusturya	254	bt
141	abd'ye	179	amerika'ya	217	ayhan	255	bulgar
142	ab'nin	180	anadolu	218	aylin	256	bulgaristan
143	ab'ye	181	anadolu'da	219	ayşe	257	burak
144	adana	182	anadolu'daki	220	azerbaycan	258	burcu
145	adem	183	anadolu'nun	221	b	259	burhan
146	adnan	184	anadolu'ya	222	bağdat	260	bursa
147	afganistan	185	anap	223	baka	261	bursa'da
148	afrika	186	anap'ın	224	balkan	262	bush
149	afrika'da	187	ankara	225	bank	263	bush'un
150	ağar	188	ankara'da	226	barzani	264	bülent
151	ahmed	189	ankara'daki	227	basa	265	c
152	ahmet	190	ankara'dan	228	bayar	266	cahil
153	akdeniz	191	ankara'nın	229	baykal	267	cahit
154	akif	192	ankara'ya	230	baykal'ın	268	canan
155	akp	193	annan	231	behçet	269	cd
156	akp'nin	194	antalya	232	bekir	270	cem
157	ali	195	apo	233	belçika	271	cemal
158	ali'nin	196	arabistan	234	berlin	272	cemil
159	alman	197	arap	235	beş	273	cenab-1
160	almanca	198	arapça	236	beşiktaş	274	cengiz
161	almanlar	199	ar-ge	237	beşiktaş'ın	275	cevat
162	almanya	200	arif	238	beşinci	276	cevdet
163	almanya'da	201	arnavut	239	beyoğlu	277	chp
164	almanya'dan	202	asım	240	bin	278	chp'nin
165	almanya'nın	203	asya	241	binbir	279	cia
166	almanya'ya	204	asya'da	242	binde	280	clinton
167	altan	205	atatürk	243	bine	281	cm
168	altı	206	atatürk'ün	244	bini	282	cüneyt
169	altıncı	207	atilla	245	binlerce	283	çanakkale
170	altmış	208	attila	246	bir	284	çankaya
171	amerika	209	avrupa	247	bir-iki	285	çiğdem
172	amerika'da	210	avrupa'da	248	bizans	286	çiller'in
173	amerika'daki	211	avrupa'daki	249	bm	287	çin
174	amerika'dan	212	avrupa'dan	250	boğaziçi	288	çin'de

289	çin'in	327	erdođan	365	gr	403	ibn
290	çođunlukla	328	erdođan'ın	366	gsm	404	ibrahim
291	d	329	ergenekon	367	göl'ün	405	iki
292	david	330	erkan	368	h	406	ikide
293	demirel	331	ermeni	369	hakan	407	ikinci
294	demirel'in	332	ermeniler	370	halil	408	ikincisi
295	denizli	333	erol	371	halit	409	ikisi
296	denktaş	334	ertuđrul	372	haluk	410	ikisini
297	dicle	335	erzurum	373	hamdi	411	ikisinin
298	diyarbakır	336	eskişehir	374	hamit	412	ikişer
299	dna	337	esra	375	handan	413	ikiye
300	doç	338	eşref	376	hasan	414	ilhan
301	dokuz	339	euro	377	hatice	415	in
302	dördüncü	340	f	378	haydar	416	ingiliz
303	dört	341	faik	379	hayri	417	ingilizce
304	dörtte	342	faruk	380	hilmi	418	ingilizler
305	dp	343	fatih	381	hindistan	419	ingiltere
306	dr	344	fatma	382	hindistan'da	420	ingiltere'de
307	dsp	345	fazıl	383	hint	421	ingiltere'nin
308	dyp	346	fenerbahçe	384	hollanda	422	ingiltere'ye
309	e	347	ferit	385	hülya	423	inönü
310	ebru	348	fethullah	386	hüseyin	424	iran
311	ebu	349	fevzi	387	hüseyin'in	425	iran'a
312	ecevit	350	fırat	388	hüsünü	426	iran'da
313	ecevit'in	351	fikret	389	hz	427	iran'ın
314	eee	352	filistin	390	ı	428	is
315	efes	353	filistinli	391	ıı	429	isa
316	ege	354	fransa	392	ııı	430	isa'nın
317	ekrem	355	fransa'da	393	ımf	431	ismail
318	elif	356	fransa'nın	394	internet	432	ismet
319	elli	357	fransız	395	ırak	433	ispanya
320	emel	358	fransızca	396	ırak'a	434	ispanyol
321	emine	359	fuat	397	ırak'ın	435	israil
322	enver	360	g	398	ıraklı	436	israil'e
323	e-posta	361	galatasaray	399	ırak'ta	437	israil'in
324	erbakan	362	george	400	ırak'taki	438	istanbul
325	ercan	363	global	401	ıv	439	istanbul'a
326	erdal	364	gökhan	402	i	440	istanbul'da

441	istanbul'daki	479	kerem	517	mersin	555	necmettin
442	istanbul'dan	480	kerim	518	meryem	556	nedim
443	istanbullu	481	kg	519	mevlana	557	nermin
444	istanbul'u	482	kıbrıs	520	mg	558	nevzat
445	istanbul'un	483	kıbrıs'ın	521	mhp	559	new
446	isveç	484	kıbrıslı	522	mhp'nin	560	nihat
447	isviçre	485	kıbrıs'ta	523	mısır'da	561	nilüfer
448	italya	486	kırk	524	michael	562	no
449	italya'da	487	kkte	525	microsoft	563	nobel
450	italyan	488	km	526	milyar	564	nokia
451	izmir	489	konya	527	milyarlarca	565	nolu
452	izmir'de	490	kore	528	milyon	566	nurettin
453	izmir'e	491	korkut	529	milyona	567	nuri
454	izzet	492	kosova	530	milyonlarca	568	oecd
455	j	493	kürdistan	531	milyonu	569	oğuz
456	james	494	kürt	532	mit	570	ok
457	japon	495	kürtçe	533	mithat	571	okan
458	japonya	496	kürtler	534	mkemal	572	oktay
459	japonya'da	497	kürtlerin	535	ml	573	on
460	jazz	498	l	536	mm	574	onlarca
461	jean	499	latin	537	moskova	575	online
462	john	500	levant	538	mö	576	oral
463	k	501	leyla	539	muhammed	577	orhan
464	kadıköy	502	londra	540	muhammed'i n	578	ortaçağ
465	kadir	503	londra'da	541	muhsin	579	ortadoğu
466	kamil	504	m	542	mumcu	580	ortadoğu'da
467	kanada	505	mahmud	543	murat	581	ortodoks
468	kanuni	506	mahmut	544	musa	582	osman
469	karadeniz	507	manço	545	mustafa	583	osmanlı
470	karagöz	508	mark	546	n	584	osmanlılar
471	katrilyon	509	marmara	547	naciye	585	osmanlı'nın
472	kayseri	510	marx	548	namık	586	otuz
473	kazım	511	mehmed	549	nasreddin	587	öcalan
474	kdv	512	mehmet	550	nato	588	ömer
475	kemal	513	meksika	551	nazım	589	özal
476	kemal'in	514	melih	552	necati	590	özal'ın
477	kemalist	515	menderes	553	necdet	591	özcan
478	kenan	516	meral	554	necip	592	özdemir

593 özer	631 sabahattin	669 suudi	707 türkiye'de
594 özkan	632 sabancı	670 suzan	708 türkiye'deki
595 p	633 sabri	671 süleyman	709 türkiye'den
596 pakistan	634 saddam	672 şemsi	710 türkiye'nin
597 paris	635 sait	673 şener	711 türkiye'ye
598 paris'e	636 sakarya	674 şevket	712 türkiye'yi
599 paris'te	637 salih	675 şükran	713 türkler
600 paul	638 sallallahu	676 şükrü	714 türklere
601 peter	639 sami	677 t	715 türkleri
602 ph	640 samsun	678 tahir	716 türklerin
603 pişkinsüt	641 sedat	679 tak	717 türkmen
604 pkk	642 sekiz	680 talat	718 türk'ün
605 pkk'nın	643 selahattin	681 tansu	719 tv
606 pkk'ya	644 selçuk	682 tanzimat	720 u
607 polonya	645 selçuklu	683 tarık	721 uefa
608 primer	646 selim	684 tayyip	722 ü
609 prof	647 selma	685 tbmm	723 üç
610 r	648 sema	686 tc	724 üçlü
611 rauf	649 semra	687 tefek	725 üçte
612 reaksiyon	650 serdar	688 terakki	726 üçü
613 recep	651 serkan	689 tevfik	727 üçüncü
614 reel	652 sevim	690 the	728 üçüncüsü
615 refik	653 seyit	691 tl	729 v
616 reşit	654 sezen	692 to	730 van
617 rıza	655 sezer	693 tokat	731 vb
618 robert	656 shp	694 tony	732 vedat
619 rock	657 sıfır	695 trabzon	733 veysel
620 roma	658 sırp	696 trabzonspor	734 viyana
621 rp	659 sinan	697 trilyon	735 vs
622 rp'nin	660 sivas	698 trt	736 w
623 rum	661 sovyet	699 tuğrul	737 washington
624 rumlar	662 sovyetler	700 tuna	738 web
625 rus	663 ssk	701 turgut	739 windows
626 rusya	664 star	702 turkcell	740 x
627 rusya'da	665 suat	703 türk	741 y
628 rusya'nın	666 suna	704 türkan	742 yahya
629 rusya'ya	667 suriye	705 türkçe	743 yakup
630 s	668 susurluk	706 türkiye	744 yalçın

745	yasemin	783	hah
746	yavuz	784	hani
747	yedi	785	hay
748	yedinci	786	he
749	yetmiş	787	hey
750	yılmaz	788	keşke
751	yılmaz'ın	789	ki
752	yirmi	790	merhaba
753	yirminci	791	of
754	york	792	oh
755	york'ta	793	ola
756	yök	794	sakın
757	ytl	795	ulan
758	yunan	796	vah
759	yunanistan	797	valla
760	yunanistan'a	798	vallahi
761	yunanistan'ın	799	vay
762	yunus	800	yaa
763	yusuf	801	yahu
764	yücel	802	yoo
765	yüzde		
766	yüzlerce		
767	zeynep		
768	ziya		
769	a		
770	aa		
771	aferin		
772	ah		
773	alo		
774	aman		
775	bari		
776	be		
777	eh		
778	ey		
779	eyvah		
780	ha		
781	haa		
782	hadi		

Appendix 2 The Academic Turkish Corpus Composition

Discipline		Humanities	Education	Economy (Commerce)	Law	Science
Running Words		937999	778,799	726038	764482	825124
Textbooks		11	10	10	10	16
Subject Areas	Antropoloji	Anne Baba	Bankacılık ve	Anayasa	Aile Sağlığı	
	Epistemoloji	Eğitimi	Sigortacılığa	Hukuku	Elektromekanik	
	Etik	Eğitim	Giriş	Borçlar	Kumanda	
	Felsefe	Bilimine Giriş	Çalışma	Hukuku	Sistemleri	
	Güzel	Eğitim	Ekonomisi	Ceza Hukuku	Enerji Ve Çevre	
	Sanatlar	Psikolojisi	Finansal	Hukuk Dili	Ev teknolojisi	
	Halkla	Eğitim	Ekonomi	ve Adli	Genel Biyoloji	
	İlişkiler	Sosyolojisi	Genel İşletme	Yazışmalar	Genel Kimya	
	İnsan ve	Okul Öncesi	Genel	Hukukun	Genel Matematik	
	Toplum	Eğitime Giriş	Muhasebe	Temel	Güç Sistemleri	
	Psikoloji	Öğretim İlke	İktisada Giriş	Kavramları	Analizi	
	Psikolojiye	Ve Yöntemleri	İşletme	İnsan Hakları	Güvenlik	
	Giriş	Öğretmenlikte	Yönetimi	Ve Kamu	Sistemleri	
	Sosyoloji 1	Mesleki	Para Politikası	Özgürlükleri	Sayısal Fotoğrafa	
	Yakınçağ	Gelişim	Türkiye	Medeni	Giriş	
	Avrupa	Özel Eğitim	Ekonomisi	Hukuk - 1	Sosyal Medya	
	Tarihi	Rehberlik	Uluslararası	Medeni	Teknolojinin	
		Sınıf Yönetimi	İktisat	Hukuk - 2	Bilimsel İlkeleri	
			Politikası	Ticaret	- 1	
				Hukuku	Temel Bilgi	
				Türk Anayasa	Teknolojileri	
				Hukuku	Temel Klinik	
					Bilgisi	
					Yeni İletişim	
					Teknolojileri	
					Yenilenebilir	
					Enerji Kaynakları	

Appendix 3 Details of the Academic Turkish Corpus Composition

The Academic Turkish Corpus

	TOKENS/%	TYPES/%
Total	4032442/100.00	182285/100.00

Table 1 All raw data corpus

	TOKENS/%	TYPES/%
Total	3415378/100.00	181980/100.00

Table 2 Excluded words corpus

1) Economy

Number of words: 726038

| Types: 50,325 | Tokens: 726,038 |

2) Education

Number of words: 778799

| Types: 57,529 | Tokens: 778,799 |

3) Humanities

Number of words: 937999

| Types: 79,281 | Tokens: 937,962 |

4) Law

Number of words: 764482

| Types: 48,687 | Tokens: 764,480 |

5) Science

Number of words: 825124

| Types: 77,274 | Tokens: 825,092 |

Appendix 4 Function List (The Second Exclusion List)

1	Acaba	36	birbirlerinin	71	bunlar	106	değilsin
2	Adeta	37	birbirleriyle	72	bunlara	107	değın
3	Aksi	38	Biri	73	bunlarda	108	dek
4	Aksine	39	Biridir	74	bunlardan	109	denli
5	Ama	40	Birileri	75	bunları	110	dolayı
6	Amma	41	birilerinin	76	bunların	111	eđer
7	Ancak	42	birinde	77	bunlarla	112	en
8	Ayrıca	43	birinden	78	bunu	113	evet
9	Azar	44	birine	79	bunun	114	fakat
10	Bana	45	birini	80	bununla	115	falan
11	Ben	46	birinin	81	burada	116	filan
12	Bence	47	birisi	82	buradaki	117	gerçi
13	Bende	48	birisidir	83	buradan	118	geređi
14	Benden	49	birisini	84	buralara	119	geređince
15	Beni	50	birisinin	85	buralarda	120	geređinden
16	Benim	51	biriydi	86	buranın	121	geređini
17	Benimki	52	biriyile	87	burası	122	gerek
18	Benimle	53	biz	88	buraya	123	gerekse
19	Bense	54	bizde	89	burayı	124	gibi
20	Beri	55	bizden	90	burda	125	gibidir
21	Bile	56	bize	91	buydu	126	gibiydi
22	Bir arada	57	bizi	92	buyrun	127	gibiyim
23	Bir araya	58	bizim	93	buyur	128	göre
24	Birbiri	59	bizimki	94	buyurun	129	hakkında
25	birbirimize	60	bizimkiler	95	çünkü	130	hakkındaki
26	birbirimizi	61	bizimle	96	dahi	131	hangi
27	birbirinden	62	bizler	97	deđil	132	hangisi
28	Birbirine	63	bizlere	98	deđildi	133	hatta
29	Birbirini	64	bizleri	99	deđildim	134	haydi
30	birbirinin	65	bu	100	deđildir	135	hayır
31	Birbiriyile	66	bucaksız	101	deđilim	136	hele
32	Birbirleri	67	budur	102	deđiliz	137	hem
33	birbirlerinden	68	buna	103	deđiller	138	hepimiz
34	birbirlerine	69	bunda	104	deđilmiş	139	hepimizi
35	birbirlerini	70	bundan	105	deđilse	140	hepimizin

141	hepiniz	177	kadarıyla	213	Kimden	249	nerede
142	hepsi	178	kah	214	Kimdi	250	nereden
143	hepsinde	179	kanımca	215	Kimdir	251	neresi
144	hepsinden	180	karşın	216	Kime	252	nereye
145	hepsine	181	kaydıyla	217	Kimi	253	nesi
146	hepsini	182	kendi	218	Kimileri	254	neydi
147	hepsinin	183	kendileri	219	Kimin	255	neye
148	her	184	kendilerinden	220	Kimisi	256	neyi
149	herkes	185	kendilerine	221	Kimler	257	neyin
150	herkese	186	kendilerini	222	Kimlerin	258	neymiş
151	herkesi	187	kendilerinin	223	Kimse	259	neyse
152	herkesin	188	kendiliğinden	224	kimseden	260	nezdinde
153	herkesten	189	kendim	225	Kimseler	261	niçin
154	herşey	190	kendimden	226	kimselere	262	niye
155	herşeyi	191	kendime	227	kimselerin	263	o
156	hiç	192	kendimi	228	kimsenin	264	odur
157	hiçbir	193	kendimiz	229	Kimseye	265	olsa
158	hiçbiri	194	kendimize	230	Kimseyi	266	ona
159	hiçbirini	195	kendimizi	231	kimseyle	267	o'na
160	için	196	kendin	232	Lakin	268	onda
161	içindir	197	kendince	233	Layık	269	ondan
162	idi	198	kendinde	234	Madem	270	onlar
163	iken	199	kendinden	235	Meğer	271	onlara
164	ikili	200	kendine	236	Mesela	272	onlarda
165	ila	201	Kendini	237	Nasıl	273	onlardan
166	ile	202	kendinize	238	Nasılsa	274	onları
167	illa	203	kendinizi	239	Nasılсын	275	onların
168	ille	204	Kendisi	240	nazaran	276	onlarla
169	ise	205	kendisinde	241	ne	277	onu
170	işte	206	kendisinden	242	neden	278	o'nu
171	kaç	207	kendisine	243	nedir	279	onun
172	kaçıncı	208	kendisini	244	neler	280	o'nun
173	kadar	209	kendisinin	245	nelerdir	281	onunla
174	kadardır	210	kendisiyle	246	neleri	282	orada
175	kadarı	211	Kim	247	nerde	283	oradaki
176	kadarını	212	Kimbilir	248	nerden	284	oradan

285	oralarda	314	öylece	343	şeyden	372	yan
286	orası	315	öylesine	344	şeydi	373	yana
287	oraya	316	öyleyse	345	şeydir	374	yanda
288	orda	317	pahasına	346	şeye	375	yandan
289	ordan	318	pekala	347	şeyi	376	yanı
290	orta	319	peki	348	şeyin	377	yanıma
291	ortada	320	rağmen	349	şeyle	378	yanımda
292	ortadan	321	sana	350	şeyler	379	yanımıza
293	oysa	322	sen	351	şeylerden	380	yanımızda
294	önce	323	sende	352	şeylere	381	yanına
295	önceden	324	senden	353	şeyleri	382	yanında
296	önceki	325	seni	354	şeylerin	383	yanındaki
297	önceleri	326	senin	355	şeylerle	384	yanından
298	öncesi	327	seninle	356	şu	385	yanını
299	öncesinde	328	sensin	357	şudur	386	yanısına
300	öncesinden	329	seve	358	şuna	387	yani
301	öncesine	330	siz	359	şunlar	388	yanları
302	öte	331	sizce	360	şunlardır	389	yanlarına
303	ötede	332	sizde	361	şunları	390	yanlarında
304	öteden	333	sizden	362	şunu	391	yoksa
305	öteki	334	size	363	şurada	392	zira
306	ötekiler	335	sizi	364	üzere	393	ziyade
307	ötekine	336	sizin	365	üzereydi		
308	ötesi	337	sizinle	366	ve		
309	ötesinde	338	sizler	367	veya		
310	ötesine	339	sizlere	368	ya		
311	öteye	340	sizleri	369	yada		
312	ötürü	341	şayet	370	yahut		
313	öyle	342	şey	371	yalnızca		

Appendix 5 Academic Turkish Vocabulary Test

AKADEMİK TÜRKÇE KELİME TESTİ

Adınız (Optional): Yaşınız: Cinsiyetiniz: Uyruğunuz: Bölümünüz: Ana Diliniz: Bildiğiniz Yabancı Diller (Hangi düzeyde): Başlangıç – Orta – İleri Düzey Başlangıç – Orta – İleri Düzey Başlangıç – Orta – İleri Düzey	Ne kadar süredir Türkçe öğrenmektesiniz? Ne kadar süredir Türkiye’de yaşamaktasınız?: Sizce Türkçe bilginiz hangi seviyede? a) Konuşma: Başlangıç – Orta – İleri Düzey b) Dinleme: Başlangıç – Orta – İleri Düzey c) Okuma: Başlangıç – Orta – İleri Düzey d) Yazma: Başlangıç – Orta – İleri Düzey
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Aşağıdaki cümlelerde boş bırakılan yerlere gelebilecek uygun seçeneği işaretleyiniz.

1) Değerler işletmelerin iç ve dış çevreye karşı _____ konusundaki kararlarını etkiler. A) ürünleri B) tutarları C) öğretimleri D) zorlukları E) sorumlulukları	8) Güvenlik: Toplum yaşamında yasal düzenin aksamadan _____, kişilerin korkusuzca yaşayabilmesi durumudur. A) tanımlanması B) yayımlanması C) kurtulması D) yürütülmesi E) tüketilmesi
2) Yapılan son _____ her dört kişiden üçünün kendilerini, ailelerini, evlerini ve iş yerlerini hırsızlığa karşı koruyabilmek için daha fazla şey yapabileceklerini düşündüklerini göstermektedir. A) yerleşimler B) maliyetler C) araştırmalar D) işaretler E) ortamlar	9) Korunma Kanunu, savaş koşullarında ekonominin üzerindeki baskıları _____ altına alabilmek, özellikle gıda zorluklarını gidermek üzere çıkartılmıştır. A) denetim B) ulaşım C) etkileşim D) girişim E) değişim
3) Yaşamak için _____ karşılamaya, bunun için ise çalışmaya mecburuz. A) uyumlarımızı B) ihtiyaçlarımızı C) tehditlerimizi D) etkileşimlerimizi E) takdirlerimizi	10) Avcılık yapan topluluklar yüksek protein _____ ile sağlıklı bir hayat sürerler. A) tüketimi B) topluluğu C) yerleşimi D) ölçümü E) konumu
4) Veteriner hekim hasta sahibinin üzüntü ve duygusallığını _____ karşılamak, hasta hayvana gerekli özeni göstermek ve onu tedavi etmek zorundadır. A) anlayışla B) toplulukla C) tehditle D) katılımla E) tepkiyle	11) Anlatım yöntemi, öğretmen merkezli olan ve okullarda sıklıkla kullanılan _____ bir yöntemdir. A) çevresel B) geleneksel C) hariç D) yükümlü E) yaklaşık

<p>5) Firmanın şantiye dışına çıkardığı işçiler _____ yapmaya başladı.</p> <p>A) yetki B) yaklaşım</p> <p>C) konum D) kavram</p> <p>E) eylem</p>	<p>12) Teknolojinin sunduğu _____ sayesinde kol gücü ile yapılan birçok işlem, artık insan müdahalesi olmaksızın otomatik olarak yapılabilir hale gelmiştir.</p> <p>A) bünyeler B) gerekçeler</p> <p>C) onaylar D) imkanlar E) tutarlar</p>
<p>6) Kendi ilgi, yetenek ve _____ özelliklerine uygun bir meslek sahibi birey, hem kendi ruh sağlığını koruyabilir, hem de daha kaliteli ve çok mal/hizmet üretebilir.</p> <p>A) ürün B) takdir C) yarar</p> <p>D) yerel E) kişilik</p>	<p>13) 5 Mayıs 1926'da İngiltere ile Türkiye arasında yapılan _____ ile Irak sınırına son şekli verilmiştir.</p> <p>A) işaret B) malzeme</p> <p>C) tehlike D) teşkil E) anlaşma</p>
<p>7) Çocuğun çalışması ve “çocuk emeği” sorunu bütün ülkelerde yaşanmakta olan evrensel bir _____ hâline gelmiştir</p> <p>A) takip B) olgu C) ortam</p> <p>D) fırsat E) imkan</p>	<p>14) Aileler çocuklarının eğitimi için yeni roller _____ durumunda kalmışlardır.</p> <p>A) toplamak B) kurtarmak</p> <p>C) üstlenmek D) saklamak E) tüketmek</p>
<p>15) Bu noktada dikkatin önemini _____ fayda vardır. Bazen bir şeye baktığımız halde onu göremeyebiliriz. Zihnimizden bambaşka şeyler geçiyordur...</p> <p>A) vurgulamamızda B) yüklememizde</p> <p>C) sarmamızda D) yaygınlaşmamızda</p> <p>E) ulaşturmamızda</p>	<p>23) Sınıftaki _____ düzeni öğrencinin öğrenmesini etkilemektedir.</p> <p>A) yerleşim B) kitle C) gözlem</p> <p>D) mekanizma E) suret</p>
<p>16) Almanya ise 1733 uçağını ve bir o kadar da pilotunu kaybetmiştir. Bu başarısızlık karşısında Hitler kış mevsiminin gelmesini de _____ göstererek İngiltere ile savaşa son vermiştir.</p> <p>A) kayıp B) emek</p> <p>C) gerekçe D) tepki E) takdir</p>	<p>24) Japonya'nın deprem ve nükleer kazadan büyük ölçüde etkilenen turizmını tekrar canlandırmak için 10000 adet uçak biletini bedavaya vereceğini açıklaması turizmdeki sıkıntıyı _____ .</p> <p>A) kanıtlamaktadır B) kaydetmektedir</p> <p>C) gözlemektedir D) korumaktadır</p> <p>E) yıldırılmaktadır</p>
<p>17) Almanya, İtalya ve Japonya'nın bu amaca yönelik çalışmalarında _____ yapmaları benimsenmiştir.</p> <p>A) tehlike B) yaklaşım C) kimlik</p> <p>D) işbirliği E) olanak</p>	<p>25) Eğitim ortamının _____ iyi olması, çocuğun duygusal ve sosyal gelişimini desteklemektedir.</p> <p>A) vadesinin B) işaretinin</p> <p>C) ikliminin D) şartının</p> <p>E) tehlikesinin</p>
<p>18) Artık günlük yaşantımızın _____ bir parçası olan bilgisayarların işlem yapma hızının gittikçe artması zor hesapların kısa zamanda yapılmasını sağlar.</p> <p>A) küresel B) toplu C) aşırı</p> <p>D) karşılıklı E) vazgeçilmez</p>	<p>26) Türkiye Cumhuriyeti kurulduğunda nüfusun büyük bir kısmı eğitimden _____ idi.</p> <p>A) kesin B) yetkili</p> <p>C) aşırı D) yoksun</p> <p>E) ahlaki</p>

<p>19) Çok sert bir kışın ardından gelen ve yağış getiren ilkbaharın ardından sıcak bir yaz yaşanması Kuzey ikliminin bir _____ .</p> <p>A) göstergesidir B) taklidi C) bünyesidir D) işbirliğidir E) tesisidir</p>	<p>27) Hedefleri net olmayan bir kurumun çalışmalarının neye yönelik olacağı konusunda bir _____ yaşanır.</p> <p>A) bilinç B) belirsizlik C) işleyiş D) akış E) nitelik</p>
<p>20) Etkileşim, karşılıklı hareket etme, birbirini etkileme anlamında kullanılan bir _____ .</p> <p>A) emirdir B) kişiliktir C) takımdır D) yayındır E) terimdir</p>	<p>28) Çalışanlar işe alınırken _____ alanlarına göre çeşitli birimlerde görevlendirilmektedir.</p> <p>A) uzmanlık B) etken C) terim D) kitle E) yaygın</p>
<p>21) Sokak hayvanlarıyla değil, hastalıklarla _____ etmek gerekiyor.</p> <p>A) tahmin B) mücadele C) takdir D) teşvik E) tehdit</p>	<p>29) Öğrendiklerimiz, _____ olarak anladıklarımızdan daha çoktur.</p> <p>A) başlıca B) bilinçli C) eksik D) yükümlü E) etken</p>
<p>22) Hem daha hızlı, hem daha çevreci araçları _____ altında Mercedes'in mühendislerinin hayal güçleridir.</p> <p>A) kapsayan B) tasarlayan C) ilgilendiren D) bağlayan E) çatışan</p>	<p>30) Anne babalar çocuklarının _____ ve duygusal problemleri ile başa çıkmakta güçlükler yaşayabilmektedirler.</p> <p>A) uyumlu B) yükümlü C) değerli D) etken E) davranışsal</p>

Appendix 6 Academic Turkish Interview Form (English Version)

ACADEMIC TURKISH INTERVIEW FORM

Dear participant,

This form aims to discover opinions of foreign students studying at universities offering Turkish medium instruction on their academic Turkish vocabulary knowledge

Name:		How long have you been living in Turkey?:
Age:	Gender:	
Nationality:		When and How did you learn Turkish?:
Department:		
Which year:		
First Language:		How well do you use Turkish?
Foreign Languages (and levels)		a) Speaking: Beginner – Preintermediate - Advanced
..... Beginner – Preintermediate - Advanced		b) Listening: Beginner – Preintermediate - Advanced
..... Beginner – Preintermediate - Advanced		c) Reading: Beginner – Preintermediate - Advanced
..... Beginner – Preintermediate - Advanced		d) Writing: Beginner – Preintermediate - Advanced

Please, try to give more detailed answers instead of saying only “yes” or “no” for the following questions:

- 1) Do you understand what you read in Turkish? (short stories, novels, newspapers)
- 2) Do you understand your textbooks? How well? Do you understand all of the words in the textbooks?
- 3) Do you understand your lecturers?
- 4) Do you communicate in class using Turkish? (with friends and lecturers about the lesson)
- 5) Do you have any difficulties in preparing projects or completing the exam paper (mid-term or final exam paper) in Turkish? (in terms of language)
- 6) Do you communicate in Turkish with your friends in social contexts? (in a café, restaurant etc.)
- 7) What kind of difficulties do you encounter as a student studying within the scope of Turkish medium instruction?

Appendix 7 Academic Turkish Interview Form (Turkish Version)

AKADEMİK TÜRKÇE GÖRÜŞME FORMU

Sayın katılımcı,

Bu form Türkçe öğretim yapılan üniversitelerdeki yabancı uyruklu öğrencilerin akademik Türkçe kelime bilgileri hakkındaki düşüncelerini ortaya çıkarmayı amaçlamaktadır.

Adınız:		Ne kadar süredir Türkiye’de yaşamaktasınız?
Yaşınız:	Cinsiyetiniz:	
Uyruğunuz:		Ne zaman ve Nasıl Türkçe öğrendiniz?
Bölümünüz:		
Kaçıncı sınıftasınız:		
Ana Diliniz:		Sizce Türkçe bilginiz hangi seviyede?
Bildiğiniz Yabancı Diller (Hangi düzeyde):		a) Konuşma: Başlangıç – Orta – İleri Düzey
..... Başlangıç – Orta – İleri Düzey		b) Dinleme: Başlangıç – Orta – İleri Düzey
..... Başlangıç – Orta – İleri Düzey		c) Okuma: Başlangıç – Orta – İleri Düzey
..... Başlangıç – Orta – İleri Düzey		d) Yazma: Başlangıç – Orta – İleri Düzey

Aşağıdaki sorulara sadece “evet/hayır” olarak değil daha ayrıntılı cevaplar vermeye çalışınız!

- 1) Okuduğunuz Türkçe kitapları anlayabiliyor musunuz? (genel kitaplar, hikaye, roman, gazete)
- 2) Üniversitedeki ders kitaplarınızı anlayabiliyor musunuz? Ne derecede? Kitaplarındaki bütün kelimelerin anlamlarını biliyor musunuz?
- 3) Üniversitede ders aldığınız öğretim üyelerinin konuşmalarını anlayabiliyor musunuz?
- 4) Öğretmeninizle veya arkadaşlarınızla dersle alakalı sınıf içinde Türkçe iletişim kurabiliyor musunuz?
- 5) Türkçe olarak proje/ödev hazırlamada veya sınav kağıdını doldurmada (vize/ final) herhangi bir zorlukla karşılaşılıyor musunuz? (Dil açısından)
- 6) Sosyal ortamlarda Türkçe kullanarak iletişim kurabiliyor musunuz? (Okul dışında, kafede vb.)
- 7) Öğretim dili Türkçe olan bir okulda öğrenim görmekte olan bir öğrenci olarak ne tür zorluklarla karşılaşıyorsunuz?

Appendix 8 Participants Learning Turkish at The Turkish Teaching Centers

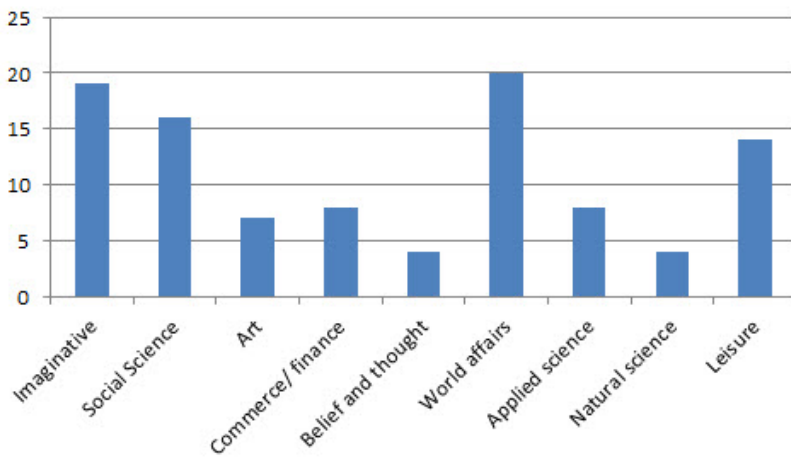
Countries	Number of Participants
Afghanistan	17
African	1
Arabic	7
Albania	3
Bangladesh	3
Bosnia	6
Bulgaria	1
Burundi	1
Djibouti	1
Chad	1
Chechnya	11
China	5
Indonesia	5
Ethiopia	1
République de Côte d'Ivoire	3
Philippines	1
Palestine	4
Gabon	2
Gambia	1
Ghana	3
Guinea	1
Georgia	1
Iraq	9
Iran	2
Kazakhstan	6
Kenya	1
Colombia	2
Congo	1
Korea	1
Liberia	1
Libya	2
Lebanon	1
Madagascar	2
Macedonia	1
Malawi	1
Malaysia	1
Egypt	1

Mongolia	2
Mauritania	1
Uzbekistan	2
Pakistan	1
Russia	1
Somalia	6
Sudan	1
Syria	12
Tajikistan	2
Tunisia	1
Turkmenistan	4
Ukraine	1
Jordan	2
Vanuatu	1
Yemen	5
Unknown	43
Total	196 (52 different countries)

Appendix 9 Composition of The Written Component of Turkish National Corpus (Aksan et al, 2013)

Domain	%	Medium	%
Imaginative	19	Book	58
Social Science	16	Periodicals	32
Art	7	Miscellaneous published	5
Commerce/ finance	8	Miscellaneous unpublished	3
Belief and thought	4	To-be-spoken	2
World affairs	20		
Applied science	8		
Natural science	4		
Leisure	14		

TNC-Domains



Appendix 10 The General Turkish Wordlist (2000 words)

No	Words	Type	Frequency	%					
1	ve	Conj	1004455	20.926	32	şey	Noun	109465	2.281
2	olmak	Verb	999204	20.817	33	biz	Pron	102569	2.137
3	bu	Det	798660	16.639	34	gün	Noun	99462	2.072
4	o	Det	364829	7.601	35	el	Noun	98790	2.058
5	etmek	Verb	351474	7.322	36	istemek	Verb	97275	2.027
6	için	Postp	254849	5.309	37	görmek	Verb	95798	1.996
7	yapmak	Verb	217208	4.525	38	ya	Conj	84608	1.763
8	ben	Pron	216237	4.505	39	ise	Conj	83686	1.743
9	çok	Adv	209647	4.368	40	sen	Pron	83663	1.743
10	demek	Verb	201303	4.194	41	son	Adj	83278	1.735
11	gibi	Postp	192756	4.016	42	önce	Postp	83164	1.733
12	daha	Adv	185489	3.864	43	çıkmaq	Verb	83129	1.732
13	kendi	Pron	183790	3.829	44	büyük	Adj	82621	1.721
14	ne	Pron	176632	3.680	45	iş	Noun	82281	1.714
15	ile	Postp	176164	3.670	46	gitmek	Verb	82079	1.710
16	almak	Verb	152783	3.183	47	yan	Noun	81096	1.690
17	vermek	Verb	149745	3.120	48	üzeri	Noun	80876	1.685
18	iç	Noun	146397	3.050	49	konu	Noun	80408	1.675
19	sonra	Postp	144437	3.009	50	baş	Noun	76222	1.588
20	yer	Noun	141364	2.945	51	diye	Postp	75667	1.576
21	her	Det	136938	2.853	52	bilmek	Verb	75150	1.566
22	ama	Conj	128015	2.667	53	yol	Noun	74910	1.561
23	gelmek	Verb	127079	2.647	54	böyle	Adj	74183	1.545
24	kadar	Postp	124612	2.596	55	yok	Noun	74008	1.542
25	en	Adv	124386	2.591	56	ülke	Noun	71694	1.494
26	yıl	Noun	123589	2.575	57	karşı	Postp	71465	1.489
27	ara	Noun	122831	2.559	58	neden	Noun	71273	1.485
28	zaman	Noun	121848	2.539	59	kalmak	Verb	71020	1.480
29	insan	Noun	118897	2.477	60	çocuk	Noun	70683	1.473
30	değil	Conj	116632	2.430	61	dünya	Noun	70277	1.464
31	var	Noun	115963	2.416	62	söylemek	Verb	69915	1.457
					63	yeni	Adj	68915	1.436

64	göre	Postp	68147	1.420	97	bura	Noun	48115	1.002
65	başlamak	Verb	67279	1.402	98	bulmak	Verb	47660	0.993
66	biri	Pron	66854	1.393	99	dış	Adj	46566	0.970
67	ilk	Adj	65952	1.374	100	şu	Det	45984	0.958
68	kadın	Noun	65923	1.373	101	dönem	Noun	45941	0.957
69	orta	Noun	65826	1.371	102	su	Noun	45549	0.949
70	durum	Noun	63823	1.330	103	kullanmak	Verb	45524	0.948
71	göz	Noun	63390	1.321	104	sonuç	Noun	45511	0.948
72	iyi	Adj	62774	1.308	105	sahip	Noun	44947	0.936
73	ancak	Conj	62438	1.301	106	adam	Noun	43874	0.914
74	hal	Noun	61422	1.280	107	oluşmak	Verb	43621	0.909
75	bakmak	Verb	60361	1.258	108	sıra	Noun	43045	0.897
76	alan	Noun	59435	1.238	109	göstermek	Verb	42664	0.889
77	ev	Noun	59167	1.233	110	hayat	Noun	42654	0.889
78	önemli	Adj	59093	1.231	111	getirmek	Verb	42325	0.882
79	hiç	Adv	58360	1.216	112	geçmek	Verb	42095	0.877
80	bütün	Adj	58344	1.216	113	tek	Adj	41924	0.873
81	aynı	Adj	57364	1.195	114	birlikte	Postp	41646	0.868
82	söz	Noun	56346	1.174	115	bazı	Adj	41110	0.856
83	bile	Adv	54411	1.134	116	çünkü	Conj	40913	0.852
84	başka	Adj	53776	1.120	117	yaşamak	Verb	40746	0.849
85	siz	Pron	52679	1.097	118	girmek	Verb	40575	0.845
86	doğru	Adj	52572	1.095	119	şimdi	Adv	40488	0.844
87	şekil	Noun	52185	1.087	120	gerekmek	Verb	40316	0.840
88	devlet	Noun	52167	1.087	121	tüm	Det	40206	0.838
89	veya	Conj	51538	1.074	122	artık	Adv	40170	0.837
90	ön	Adj	51508	1.073	123	düşünmek	Verb	39867	0.831
91	diğer	Adj	51339	1.070	124	çalışma	Noun	39730	0.828
92	bulunmak	Verb	50570	1.054	125	kız	Noun	39650	0.826
93	kişi	Noun	49817	1.038	126	tarafından	Postp	39302	0.819
94	hem	Conj	49763	1.037	127	yine	Adv	39267	0.818
95	nasıl	Adv	49502	1.031	128	tarih	Noun	38874	0.810
96	alt	Adj	48948	1.020	129	yani	Conj	38054	0.793

130	açmak	Verb	37907	0.790	163	an	Noun	31956	0.666
131	genel	Adj	37789	0.787	164	ay	Noun	31271	0.651
132	ad	Noun	37784	0.787	165	olay	Noun	31141	0.649
133	fazla	Adj	37784	0.787	166	birbiri	Pron	30823	0.642
134	çalışmak	Verb	37498	0.781	167	dil	Noun	30770	0.641
135	baba	Noun	37455	0.780	168	eğitim	Noun	30693	0.639
136	ilgili	Postp	37453	0.780	169	durmak	Verb	30342	0.632
137	öyle	Adv	37192	0.775	170	tam	Adj	30273	0.631
138	kim	Pron	36905	0.769	171	biraz	Adj	30141	0.628
139	varmak	Verb	36713	0.765	172	işte	Postp	30044	0.626
140	üst	Adj	36506	0.761	173	hareket	Noun	29976	0.625
141	anne	Noun	36469	0.760	174	hak	Noun	29842	0.622
142	bilgi	Noun	36310	0.756	175	halk	Noun	29637	0.617
143	ses	Noun	36114	0.752	176	kabul	Noun	29385	0.612
144	sadece	Adv	35885	0.748	177	kez	Noun	29355	0.612
145	az	Adj	34981	0.729	178	devam	Noun	29044	0.605
146	gelen	Noun	34584	0.721	179	farklı	Noun	28856	0.601
147	sorun	Noun	34530	0.719	180	gerçek	Noun	28805	0.600
148	karar	Noun	34431	0.717	181	bugün	Noun	28631	0.596
149	hiçbir	Det	34313	0.715	182	yüksek	Adj	28409	0.592
150	örnek	Noun	34024	0.709	183	bölge	Noun	28167	0.587
151	sağlamak	Verb	33873	0.706	184	gece	Noun	28114	0.586
152	hemen	Adv	33759	0.703	185	genç	Adj	27903	0.581
153	küçük	Adj	33654	0.701	186	kapı	Noun	27761	0.578
154	sistem	Noun	33322	0.694	187	ora	Noun	27759	0.578
155	ilişki	Noun	33253	0.693	188	biçim	Noun	27757	0.578
156	süre	Noun	33190	0.691	189	saat	Noun	27727	0.578
157	güzel	Adj	33085	0.689	190	yaşam	Noun	27585	0.575
158	para	Noun	32364	0.674	191	grup	Noun	27563	0.574
159	toplum	Noun	32301	0.673	192	belki	Adv	27555	0.574
160	uzun	Adj	32209	0.671	193	kitap	Noun	27493	0.573
161	güç	Noun	32175	0.670	194	değer	Noun	27419	0.571
162	yüz	Noun	32123	0.669	195	geri	Adv	27414	0.571

196	açık	Adj	27250	0.568	229	beklemek	Verb	23915	0.498
197	eski	Adj	27025	0.563	230	ifade	Noun	23904	0.498
198	hep	Adv	26800	0.558	231	başkan	Noun	23881	0.498
199	arkadaş	Noun	26646	0.555	232	dikkat	Noun	23372	0.487
200	kurmak	Verb	26635	0.555	233	üzere	Postp	23338	0.486
201	özel	Adj	26581	0.554	234	okul	Noun	23284	0.485
202	kimse	Noun	26514	0.552	235	savaş	Noun	23210	0.484
203	erkek	Noun	26451	0.551	236	açı	Noun	23128	0.482
204	pek	Adv	26328	0.549	237	fakat	Conj	23038	0.480
205	herkes	Noun	26271	0.547	238	gerek	Postp	22873	0.477
206	sayı	Noun	26259	0.547	239	içeri	Noun	22622	0.471
207	yapı	Noun	26197	0.546	240	düşmek	Verb	22376	0.466
208	oran	Noun	26131	0.544	241	etki	Noun	22102	0.460
209	parti	Noun	25847	0.538	242	hatta	Conj	21799	0.454
210	özellikle	Adv	25803	0.538	243	hizmet	Noun	21758	0.453
211	dönmek	Verb	25790	0.537	244	süreç	Noun	21623	0.450
212	aile	Noun	25671	0.535	245	anlam	Noun	21600	0.450
213	anlamak	Verb	25654	0.534	246	soru	Noun	21347	0.445
214	konuşmak	Verb	25623	0.534	247	atmak	Verb	21254	0.443
215	temel	Noun	25600	0.533	248	madde	Noun	21247	0.443
216	belirtmek	Verb	25558	0.532	249	hepsi	Pron	21216	0.442
217	tür	Noun	25280	0.527	250	merkez	Noun	21212	0.442
218	çekmek	Verb	25234	0.526	251	çıkarmak	Verb	21183	0.441
219	anlatmak	Verb	25060	0.522	252	şöyle	Adv	21092	0.439
220	yeniden	Adv	24730	0.515	253	kaynak	Noun	21088	0.439
221	yakın	Noun	24716	0.515	254	toprak	Noun	21063	0.439
222	yaş	Noun	24657	0.514	255	ayrıca	Adv	21009	0.438
223	bey	Noun	24524	0.511	256	belli	Adj	20952	0.437
224	gelir	Noun	24246	0.505	257	koymak	Verb	20822	0.434
225	amaç	Noun	24169	0.504	258	yemek	Noun	20728	0.432
226	yazmak	Verb	24082	0.502	259	tutmak	Verb	20611	0.429
227	yönetim	Noun	24030	0.501	260	mümkün	Adj	20580	0.429
228	bırakmak	Verb	23999	0.500	261	akıl	Noun	20568	0.429

262	çevre	Noun	20457	0.426	295	evet	Adv	18299	0.381
263	haber	Noun	20428	0.426	296	aslında	Adv	18262	0.380
264	özellik	Noun	20365	0.424	297	program	Noun	18224	0.380
265	üretim	Noun	20298	0.423	298	birçok	Det	18180	0.379
266	öte	Noun	20287	0.423	299	düzey	Noun	18096	0.377
267	birkaç	Det	20285	0.423	300	eğer	Conj	18022	0.375
268	görev	Noun	20252	0.422	301	taşımak	Verb	17884	0.373
269	nokta	Noun	20181	0.420	302	nerede	Pron	17843	0.372
270	art	Noun	20147	0.420	303	kültür	Noun	17812	0.371
271	taraf	Noun	19955	0.416	304	artmak	Verb	17464	0.364
272	uygun	Adj	19944	0.416	305	oyun	Noun	17289	0.360
273	düşünce	Noun	19912	0.415	306	sevmek	Verb	17198	0.358
274	tabi	Conj	19666	0.410	307	araştırma	Verb	17132	0.357
275	gerekmek	Verb	19566	0.408	308	ürün	Noun	17082	0.356
276	duymak	Verb	19526	0.407	309	deniz	Noun	17077	0.356
277	okumak	Verb	19469	0.406	310	fark	Noun	17014	0.354
278	olsa	Conj	19468	0.406	311	zor	Adj	16998	0.354
279	ekonomik	Adj	19405	0.404	312	din	Noun	16949	0.353
280	sosyal	Adj	19278	0.402	313	gelişme	Verb	16658	0.347
281	bağlı	Postp	19258	0.401	314	seçim	Noun	16611	0.346
282	allah	Noun	19156	0.399	315	hakkında	Postp	16580	0.345
283	zaten	Adv	19029	0.396	316	film	Noun	16507	0.344
284	geçen	Adj	19028	0.396	317	sabah	Noun	16312	0.340
285	kısa	Adj	19017	0.396	318	gazete	Noun	16310	0.340
286	hava	Noun	18709	0.390	319	ileri	Noun	16275	0.339
287	bölüm	Noun	18628	0.388	320	ölüm	Noun	16184	0.337
288	yön	Noun	18615	0.388	321	çeşitli	Adj	16174	0.337
289	oturmak	Verb	18586	0.387	322	sanki	Adv	16047	0.334
290	öğrenci	Noun	18533	0.386	323	hangi	Adj	15950	0.332
291	gelecek	Noun	18526	0.386	324	uygulama	Noun	15895	0.331
292	oda	Noun	18525	0.386	325	varlık	Noun	15771	0.329
293	arka	Noun	18449	0.384	326	sınıf	Noun	15695	0.327
294	sormak	Verb	18366	0.383	327	rağmen	Postp	15692	0.327

328	politika	Noun	15532	0.324	361	derece	Noun	14253	0.297
329	hükümet	Noun	15406	0.321	362	birlik	Noun	14239	0.297
330	yazı	Noun	15374	0.320	363	sokak	Noun	14135	0.294
331	önem	Noun	15306	0.319	364	sürekli	Adv	14036	0.292
332	şirket	Noun	15261	0.318	365	sık	Adv	13988	0.291
333	ana	Noun	15209	0.317	366	aşağı	Noun	13981	0.291
334	kazanmak	Verb	15173	0.316	367	yoksa	Conj	13939	0.290
335	oğul	Noun	15173	0.316	368	ışık	Noun	13908	0.290
336	yardım	Noun	15173	0.316	369	uluslararası	Adj	13877	0.289
337	hala	Adv	15070	0.314	370	yukarı	Noun	13873	0.289
338	kurum	Noun	15050	0.314	371	yaratmak	Verb	13867	0.289
339	belirlemek	Verb	15043	0.313	372	ayak	Noun	13802	0.288
340	sürmek	Verb	15019	0.313	373	yazar	Noun	13799	0.287
341	uzak	Adj	14984	0.312	374	gerekli	Adj	13783	0.287
342	bakan	Noun	14980	0.312	375	yalnız	Adj	13767	0.287
343	aramak	Verb	14870	0.310	376	ortam	Noun	13738	0.286
344	sanat	Noun	14833	0.309	377	duygu	Noun	13698	0.285
345	banka	Noun	14816	0.309	378	akşam	Noun	13646	0.284
346	türlü	Adj	14807	0.308	379	kent	Noun	13638	0.284
347	ayrı	Adj	14790	0.308	380	kısım	Noun	13593	0.283
348	üniversite	Noun	14764	0.308	381	benzer	Adj	13538	0.282
349	ihtiyaç	Noun	14754	0.307	382	telefon	Noun	13442	0.280
350	yabancı	Noun	14740	0.307	383	bilim	Noun	13335	0.278
351	çalışan	Noun	14697	0.306	384	gerçekten	Adv	13224	0.276
352	toplumsal	Adj	14693	0.306	385	geçmiş	Adj	13213	0.275
353	can	Noun	14687	0.306	386	koşul	Noun	13168	0.274
354	üye	Noun	14558	0.303	387	cevap	Noun	13152	0.274
355	hız	Noun	14481	0.302	388	dolayısı	Conj	13140	0.274
356	sektör	Noun	14458	0.301	389	kavram	Noun	13107	0.273
357	kötü	Adj	14399	0.300	390	hanım	Noun	13102	0.273
358	ait	Postp	14373	0.299	391	batı	Noun	13079	0.272
359	ilişkin	Postp	14336	0.299	392	bitmek	Verb	13061	0.272
360	oysa	Conj	14283	0.298	393	siyasi	Adj	12975	0.270

394	geçirmek	Verb	12970	0.270	427	öğrenmek	Verb	11745	0.245
395	tekrar	Adv	12888	0.269	428	parça	Noun	11732	0.244
396	dışarı	Noun	12867	0.268	429	mücadele	Noun	11712	0.244
397	milli	Adj	12859	0.268	430	ders	Noun	11686	0.243
398	yalnızca	Adv	12844	0.268	431	zorunda	Adj	11675	0.243
399	kamu	Noun	12723	0.265	432	açıklama	Noun	11607	0.242
400	ortak	Noun	12717	0.265	433	ölçü	Noun	11562	0.241
401	karşılık	Noun	12650	0.264	434	herhangi	Adj	11555	0.241
402	bazen	Adv	12641	0.263	435	dolu	Adj	11539	0.240
403	yönelik	Postp	12574	0.262	436	yüzyıl	Noun	11511	0.240
404	köy	Noun	12539	0.261	437	yanlıs	Adj	11492	0.239
405	toplam	Noun	12521	0.261	438	hayır	Noun	11446	0.238
406	ağır	Adj	12514	0.261	439	peki	Adv	11302	0.235
407	mal	Noun	12421	0.259	440	birden	Adv	11275	0.235
408	geniş	Adj	12417	0.259	441	kalkmak	Verb	11237	0.234
409	doğal	Adj	12375	0.258	442	paşa	Noun	11194	0.233
410	ekonomi	Noun	12258	0.255	443	kanun	Noun	11131	0.232
411	işçi	Noun	12172	0.254	444	katılmak	Verb	11106	0.231
412	öğretmen	Noun	12154	0.253	445	miktar	Noun	11090	0.231
413	gerçekleş- mek	Verb	12128	0.253	446	sevgi	Noun	11086	0.231
414	kolay	Adj	12109	0.252	447	acı	Noun	11085	0.231
415	siyasal	Adj	12087	0.252	448	adım	Noun	11079	0.231
416	hafta	Noun	12047	0.251	449	faaliyet	Noun	11063	0.230
417	görüş	Noun	12044	0.251	450	meydana	Noun	11057	0.230
418	araç	Noun	12023	0.250	451	henüz	Adv	11029	0.230
419	yarı	Noun	12012	0.250	452	efendi	Noun	11016	0.230
420	müzik	Noun	11957	0.249	453	sol	Noun	10981	0.229
421	boyunca	Postp	11933	0.249	454	teknik	Adj	10977	0.229
422	tanımak	Verb	11930	0.249	455	beraber	Adj	10968	0.229
423	islam	Noun	11928	0.249	456	çıkarmak	Noun	10964	0.228
424	yöntem	Noun	11908	0.248	457	şiir	Noun	10939	0.228
425	sebepe	Noun	11895	0.248	458	asıl	Adj	10926	0.228
426	şehir	Noun	11809	0.246	459	plan	Noun	10885	0.227

460	aşk	Noun	10880	0.227	493	hedef	Noun	10051	0.209
461	bakımından	Postp	10855	0.226	494	ayrılmak	Verb	10002	0.208
462	ağaç	Noun	10845	0.226	495	çözüm	Noun	9933	0.207
463	görünmek	Verb	10809	0.225	496	yaklaşık	Adj	9906	0.206
464	örgüt	Noun	10789	0.225	497	düzen	Noun	9902	0.206
465	ciddi	Adj	10775	0.224	498	yıllık	Adj	9891	0.206
466	ilgi	Noun	10770	0.224	499	kuruluş	Noun	9882	0.206
467	güneş	Noun	10753	0.224	500	hazırlamak	Verb	9841	0.205
468	hukuk	Noun	10748	0.224	501	hastalık	Noun	9815	0.204
469	kural	Noun	10713	0.223	502	izlemek	Verb	9815	0.204
470	polis	Noun	10664	0.222	503	izin	Noun	9814	0.204
471	destek	Noun	10644	0.222	504	çerçeve	Noun	9793	0.204
472	isim	Noun	10574	0.220	505	güçlü	Adj	9780	0.204
473	yüzden	Conj	10551	0.220	506	rol	Noun	9755	0.203
474	hasta	Noun	10547	0.220	507	yürümek	Verb	9750	0.203
475	yasa	Noun	10517	0.219	508	hesap	Noun	9749	0.203
476	asker	Noun	10466	0.218	509	günümüz	Noun	9747	0.203
477	cumhuriyet	Noun	10452	0.218	510	değişik	Adj	9693	0.202
478	beri	Postp	10431	0.217	511	ticaret	Noun	9659	0.201
479	adlı	Adj	10419	0.217	512	ulaşmak	Verb	9648	0.201
480	proje	Noun	10365	0.216	513	toplantı	Noun	9632	0.201
481	kurul	Noun	10350	0.216	514	ölmek	Verb	9605	0.200
482	renk	Noun	10302	0.215	515	askeri	Adj	9579	0.200
483	güvenlik	Noun	10286	0.214	516	fikir	Noun	9569	0.199
484	davranış	Noun	10235	0.213	517	uygulamak	Verb	9545	0.199
485	yavaş	Adj	10216	0.213	518	sanayi	Noun	9537	0.199
486	beyaz	Adj	10199	0.212	519	defa	Noun	9529	0.199
487	büyümek	Verb	10184	0.212	520	piyasa	Noun	9500	0.198
488	yardımcı	Noun	10161	0.212	521	değişiklik	Noun	9487	0.198
489	vergi	Noun	10098	0.210	522	elbette	Adv	9486	0.198
490	başkası	Noun	10092	0.210	523	ulusal	Adj	9465	0.197
491	işlem	Noun	10069	0.210	524	birey	Noun	9447	0.197
492	kan	Noun	10069	0.210	525	düşük	Adj	9420	0.196

526	mevcut	Adj	9419	0.196	559	sağlık	Noun	8832	0.184
527	kontrol	Noun	9407	0.196	560	kaç	Adj	8773	0.183
528	ağız	Noun	9383	0.195	561	ruh	Noun	8749	0.182
529	demokrasi	Noun	9378	0.195	562	sınır	Noun	8712	0.182
530	anlayış	Noun	9351	0.195	563	işaret	Noun	8708	0.181
531	doktor	Noun	9325	0.194	564	kafa	Noun	8703	0.181
532	derin	Adj	9308	0.194	565	resmi	Adj	8637	0.180
533	boş	Adj	9279	0.193	566	masa	Noun	8635	0.180
534	hızlı	Adj	9256	0.193	567	ters	Adj	8621	0.180
535	teknoloji	Noun	9252	0.193	568	gül	Noun	8592	0.179
536	düzenlemek	Verb	9217	0.192	569	bitki	Noun	8590	0.179
537	enerji	Noun	9205	0.192	570	tanrı	Noun	8536	0.178
538	sermaye	Noun	9197	0.192	571	artış	Noun	8533	0.178
539	başarı	Noun	9194	0.192	572	başbakan	Noun	8518	0.177
540	genellikle	Adv	9171	0.191	573	ilke	Noun	8500	0.177
541	konuşma	Noun	9166	0.191	574	hayvan	Noun	8497	0.177
542	pazar	Noun	9159	0.191	575	korumak	Verb	8478	0.177
543	millet	Noun	9142	0.190	576	değişmek	Verb	8464	0.176
544	dün	Noun	9141	0.190	577	iktidar	Noun	8441	0.176
545	sağ	Noun	9135	0.190	578	nitelik	Noun	8441	0.176
546	basın	Noun	9126	0.190	579	toplamak	Verb	8385	0.175
547	dolmak	Verb	9101	0.190	580	üstelik	Adv	8373	0.174
548	inanmak	Verb	9087	0.189	581	yaşayan	Noun	8333	0.174
549	oynamak	Verb	9075	0.189	582	resim	Noun	8328	0.174
550	doğmak	Verb	9072	0.189	583	kullanım	Noun	8313	0.173
551	takım	Noun	9068	0.189	584	başarılı	Adj	8311	0.173
552	yatırım	Noun	8964	0.187	585	anayasa	Noun	8309	0.173
553	koca	Noun	8927	0.186	586	fiyat	Noun	8301	0.173
554	tartışma	Verb	8902	0.185	587	eş	Noun	8287	0.173
555	açıklamak	Verb	8895	0.185	588	iyice	Adv	8276	0.172
556	dakika	Noun	8845	0.184	589	sanmak	Verb	8276	0.172
557	firma	Noun	8842	0.184	590	kardeş	Noun	8257	0.172
558	anlam	Noun	8839	0.184	591	acaba	Adv	8250	0.172

592	bakış	Noun	8243	0.172	625	tercih	Noun	7845	0.163
593	çiçek	Noun	8236	0.172	626	eser	Noun	7844	0.163
594	veri	Noun	8235	0.172	627	talep	Noun	7825	0.163
595	satmak	Verb	8233	0.172	628	tamamen	Adv	7799	0.162
596	konu	Noun	8194	0.171	629	ceza	Noun	7795	0.162
597	yeterli	Adj	8194	0.171	630	değişim	Noun	7748	0.161
598	iletişim	Noun	8192	0.171	631	yönetici	Noun	7726	0.161
599	ateş	Noun	8159	0.170	632	karanlık	Noun	7723	0.161
600	duvar	Noun	8157	0.170	633	içermek	Verb	7677	0.160
601	taş	Noun	8143	0.170	634	etkili	Adj	7670	0.160
602	geliştirmek	Verb	8127	0.169	635	merak	Noun	7598	0.158
603	gene	Adv	8109	0.169	636	değerlendir- mek	Verb	7585	0.158
604	kara	Adj	8109	0.169	637	kesim	Noun	7571	0.158
605	kol	Noun	8088	0.169	638	neredeyse	Adv	7543	0.157
606	kuş	Noun	8063	0.168	639	tip	Noun	7527	0.157
607	boy	Noun	8061	0.168	640	suç	Noun	7524	0.157
608	doğrudan	Adj	8055	0.168	641	belirli	Adj	7516	0.157
609	tamam	Noun	8051	0.168	642	bahçe	Noun	7497	0.156
610	tane	Noun	8050	0.168	643	karşın	Postp	7471	0.156
611	model	Noun	8044	0.168	644	sıcak	Adj	7465	0.156
612	mutlu	Adj	8035	0.167	645	dinlemek	Verb	7453	0.155
613	yanıt	Noun	8031	0.167	646	hoş	Adj	7432	0.155
614	dolayı	Postp	8006	0.167	647	yaz	Noun	7431	0.155
615	televizyon	Noun	7974	0.166	648	uç	Noun	7404	0.154
616	maç	Noun	7959	0.166	649	dahil	Postp	7390	0.154
617	ince	Adj	7950	0.166	650	karı	Noun	7385	0.154
618	müslüman	Noun	7908	0.165	651	dağ	Noun	7375	0.154
619	ünlü	Adj	7897	0.165	652	yatak	Noun	7361	0.153
620	idi	Verb	7896	0.165	653	yerel	Adj	7351	0.153
621	itibaren	Postp	7864	0.164	654	yaşlı	Adj	7350	0.153
622	lira	Noun	7864	0.164	655	mahkeme	Noun	7342	0.153
623	hoca	Noun	7852	0.164	656	kat	Noun	7326	0.153
624	şart	Noun	7851	0.164	657	niye	Adv	7326	0.153

658	dost	Noun	7305	0.152	691	korku	Noun	6798	0.142
659	mutlaka	Adv	7298	0.152	692	meclis	Noun	6780	0.141
660	gizli	Adj	7294	0.152	693	gelişmek	Verb	6776	0.141
661	kesmek	Verb	7263	0.151	694	olanak	Noun	6772	0.141
662	yükselmek	Verb	7262	0.151	695	özgürlük	Noun	6762	0.141
663	fotoğraf	Noun	7252	0.151	696	kişilik	Noun	6735	0.140
664	yoğun	Adj	7222	0.150	697	kelime	Noun	6722	0.140
665	eylem	Noun	7220	0.150	698	günlük	Adj	6721	0.140
666	doğu	Noun	7160	0.149	699	sonraki	Adj	6700	0.140
667	dayanmak	Verb	7154	0.149	700	olumsuz	Adj	6665	0.139
668	kar	Noun	7127	0.148	701	kesin	Adj	6663	0.139
669	doğa	Noun	7122	0.148	702	sunmak	Verb	6659	0.139
670	kredi	Noun	7108	0.148	703	saymak	Verb	6648	0.139
671	ilginç	Adj	7105	0.148	704	normal	Adj	6636	0.138
672	tespit	Noun	7088	0.148	705	silah	Noun	6628	0.138
673	siyaset	Noun	7086	0.148	706	imkan	Noun	6605	0.138
674	yıldız	Noun	7084	0.148	707	hazır	Adj	6599	0.137
675	işletme	Noun	7079	0.147	708	canlı	Noun	6596	0.137
676	nüfus	Noun	7051	0.147	709	serbest	Adj	6587	0.137
677	tedavi	Noun	7048	0.147	710	rekabet	Noun	6580	0.137
678	ortalama	Noun	7039	0.147	711	çay	Noun	6567	0.137
679	gündem	Noun	7034	0.147	712	sanatçı	Noun	6558	0.137
680	mektup	Noun	6962	0.145	713	lazım	Noun	6556	0.137
681	esas	Noun	6956	0.145	714	yerinde	Noun	6550	0.136
682	savunmak	Verb	6932	0.144	715	katkı	Noun	6515	0.136
683	pay	Noun	6915	0.144	716	kimlik	Noun	6502	0.135
684	olumlu	Adj	6914	0.144	717	bakanlık	Noun	6500	0.135
685	sevgili	Noun	6910	0.144	718	dolar	Noun	6486	0.135
686	erken	Adv	6863	0.143	719	kağıt	Noun	6480	0.135
687	saye	Postp	6863	0.143	720	hele	Conj	6450	0.134
688	sözcük	Noun	6828	0.142	721	sigara	Noun	6450	0.134
689	kriz	Noun	6809	0.142	722	boyut	Noun	6393	0.133
690	lider	Noun	6806	0.142	723	adet	Noun	6368	0.133

724	iddia	Noun	6364	0.133	757	rahat	Adj	6086	0.127
725	mesela	Postp	6362	0.133	758	güven	Noun	6053	0.126
726	şiddet	Noun	6360	0.133	759	kere	Noun	6051	0.126
727	yaklaşım	Noun	6356	0.132	760	düzenleme	Noun	6047	0.126
728	kırmızı	Adj	6350	0.132	761	temsil	Noun	6045	0.126
729	barış	Noun	6341	0.132	762	geç	Adj	6012	0.125
730	sahne	Noun	6334	0.132	763	yeşil	Adj	5996	0.125
731	koşmak	Verb	6333	0.132	764	vakit	Noun	5991	0.125
732	asla	Adv	6329	0.132	765	seçmek	Verb	5946	0.124
733	hayal	Noun	6324	0.132	766	altın	Noun	5942	0.124
734	kalp	Noun	6324	0.132	767	öncelik	Noun	5933	0.124
735	fırsat	Noun	6310	0.131	768	tepki	Noun	5927	0.123
736	zarar	Noun	6291	0.131	769	beyin	Noun	5924	0.123
737	aday	Noun	6274	0.131	770	gülmek	Verb	5910	0.123
738	hücre	Noun	6260	0.130	771	şarkı	Noun	5892	0.123
739	soğuk	Adj	6248	0.130	772	unutmak	Verb	5866	0.122
740	oyuncu	Noun	6237	0.130	773	görüşme	Noun	5851	0.122
741	eylül	Noun	6236	0.130	774	baskı	Noun	5849	0.122
742	belediye	Noun	6233	0.130	775	ordu	Noun	5841	0.122
743	değiştirmek	Verb	6224	0.130	776	metin	Noun	5838	0.122
744	yayın	Noun	6223	0.130	777	ağlamak	Verb	5832	0.122
745	kaldırmak	Verb	6218	0.130	778	sayın	Adj	5817	0.121
746	rapor	Noun	6184	0.129	779	tarım	Noun	5805	0.121
747	gören	Noun	6171	0.129	780	aşırı	Adj	5804	0.121
748	yüzünden	Postp	6158	0.128	781	oy	Noun	5795	0.121
749	internet	Noun	6153	0.128	782	dahi	Conj	5789	0.121
750	abi	Noun	6146	0.128	783	gazeteci	Noun	5785	0.121
751	gider	Noun	6142	0.128	784	üretmek	Verb	5785	0.121
752	kültürel	Adj	6106	0.127	785	kuzey	Noun	5779	0.120
753	köşe	Noun	6105	0.127	786	modern	Adj	5747	0.120
754	emin	Noun	6101	0.127	787	götürmek	Verb	5714	0.119
755	satış	Noun	6099	0.127	788	inmek	Verb	5705	0.119
756	milletvekili	Noun	6097	0.127	789	malzeme	Noun	5696	0.119

790	demokratik	Adj	5691	0.119	823	sivil	Adj	5416	0.113
791	dek	Postp	5687	0.118	824	istek	Noun	5405	0.113
792	herhalde	Adv	5667	0.118	825	teslim	Noun	5394	0.112
793	kaçmak	Verb	5666	0.118	826	geçerli	Adj	5370	0.112
794	ilaç	Noun	5643	0.118	827	kapsam	Noun	5363	0.112
795	kaybetmek	Verb	5640	0.118	828	engel	Noun	5361	0.112
796	adeta	Adv	5619	0.117	829	at	Noun	5360	0.112
797	bağımsız	Adj	5613	0.117	830	ziyaret	Noun	5351	0.111
798	bilimsel	Adj	5613	0.117	831	zorunlu	Adj	5350	0.111
799	aşama	Noun	5591	0.116	832	dava	Noun	5330	0.111
800	mali	Adj	5580	0.116	833	siyah	Adj	5329	0.111
801	kısaca	Adv	5579	0.116	834	yatmak	Verb	5315	0.111
802	insanlık	Noun	5577	0.116	835	kuvvet	Noun	5304	0.111
803	etraf	Noun	5550	0.116	836	sorumluluk	Noun	5299	0.110
804	anlaşma	Noun	5535	0.115	837	balık	Noun	5295	0.110
805	çaba	Noun	5526	0.115	838	yarın	Noun	5285	0.110
806	başlangıç	Noun	5518	0.115	839	etkilemek	Verb	5284	0.110
807	roman	Noun	5512	0.115	840	sinema	Noun	5284	0.110
808	bilgisayar	Noun	5509	0.115	841	yarım	Adj	5272	0.110
809	birim	Noun	5505	0.115	842	çift	Adj	5260	0.110
810	ekmek	Noun	5502	0.115	843	takip	Noun	5258	0.110
811	sayılı	Adj	5483	0.114	844	tiyatro	Noun	5246	0.109
812	iz	Noun	5475	0.114	845	sert	Adj	5239	0.109
813	müşteri	Noun	5472	0.114	846	konum	Noun	5211	0.109
814	akmak	Verb	5463	0.114	847	hikaye	Noun	5209	0.109
815	zengin	Adj	5459	0.114	848	öykü	Noun	5206	0.108
816	basit	Adj	5437	0.113	849	faktör	Noun	5184	0.108
817	kaynaklan- mak	Verb	5435	0.113	850	nitekim	Adv	5175	0.108
818	sürdürmek	Verb	5430	0.113	851	sorumlu	Noun	5161	0.108
819	dair	Postp	5429	0.113	852	iken	Adv	5158	0.107
820	terk	Noun	5429	0.113	853	bol	Adj	5154	0.107
821	meslek	Noun	5421	0.113	854	hissetmek	Verb	5148	0.107
822	salon	Noun	5418	0.113	855	vurmak	Verb	5135	0.107

856	edebiyat	Noun	5129	0.107	889	dergi	Noun	4875	0.102
857	hüküm	Noun	5126	0.107	890	düşman	Noun	4872	0.102
858	mesaj	Noun	5123	0.107	891	teşekkür	Noun	4861	0.101
859	öğretim	Noun	5110	0.106	892	çağdaş	Adj	4857	0.101
860	açıkça	Adv	5103	0.106	893	ücret	Noun	4840	0.101
861	pencere	Noun	5091	0.106	894	etkinlik	Adj	4831	0.101
862	ihracat	Noun	5089	0.106	895	sene	Noun	4809	0.100
863	geleneksel	Adj	5083	0.106	896	cep	Noun	4808	0.100
864	tıpkı	Noun	5082	0.106	897	güney	Noun	4797	0.100
865	giriş	Noun	5077	0.106	898	ağırlık	Noun	4782	0.100
866	sınırlı	Noun	5074	0.106	899	gelişim	Noun	4778	0.100
867	medya	Noun	5070	0.106	900	saç	Noun	4775	0.099
868	bağırarak	Verb	5036	0.105	901	uyum	Noun	4769	0.099
869	cinsel	Adj	5023	0.105	902	tatlı	Adj	4768	0.099
870	yaygın	Adj	5017	0.105	903	belge	Noun	4766	0.099
871	çekilmek	Verb	5015	0.104	904	yürek	Noun	4757	0.099
872	şair	Noun	5014	0.104	905	göndermek	Verb	4753	0.099
873	haklı	Noun	5013	0.104	906	tahmin	Noun	4744	0.099
874	unsur	Noun	4999	0.104	907	hakim	Noun	4738	0.099
875	aydın	Adj	4997	0.104	908	saygı	Noun	4731	0.099
876	farklılık	Noun	4991	0.104	909	görüntü	Noun	4727	0.098
877	çeşit	Noun	4953	0.103	910	sağlıklı	Noun	4697	0.098
878	problem	Noun	4941	0.103	911	öz	Noun	4692	0.098
879	etkin	Adj	4935	0.103	912	kişisel	Adj	4687	0.098
880	bina	Noun	4929	0.103	913	emir	Noun	4683	0.098
881	petrol	Noun	4928	0.103	914	eşit	Adj	4667	0.097
882	mayıs	Noun	4917	0.102	915	koku	Noun	4636	0.097
883	idare	Noun	4913	0.102	916	tablo	Noun	4633	0.097
884	tavır	Noun	4908	0.102	917	ertesi	Adj	4631	0.096
885	yetkili	Noun	4908	0.102	918	beden	Noun	4627	0.096
886	kapalı	Adj	4897	0.102	919	hafif	Adj	4626	0.096
887	uzman	Noun	4892	0.102	920	çağ	Noun	4625	0.096
888	zira	Conj	4892	0.102	921	gelişmiş	Adj	4625	0.096

922	niçin	Adv	4625	0.096
923	müdür	Noun	4618	0.096
924	kenar	Noun	4598	0.096
925	dayalı	Postp	4594	0.096
926	başkanlık	Noun	4590	0.096
927	devrim	Noun	4588	0.096
928	memur	Noun	4587	0.096
929	ocak	Noun	4585	0.096
930	görevli	Noun	4584	0.096
931	aracılık	Noun	4580	0.095
932	uzanmak	Verb	4577	0.095
933	içmek	Verb	4563	0.095
934	vücut	Noun	4560	0.095
935	ilan	Noun	4559	0.095
936	kulak	Noun	4538	0.095
937	yağmur	Noun	4533	0.094
938	itibariyle	Noun	4524	0.094
939	peş	Noun	4521	0.094
940	elektrik	Noun	4520	0.094
941	aralık	Noun	4519	0.094
942	borç	Noun	4504	0.094
943	doğrultu	Noun	4493	0.094
944	çabuk	Adj	4487	0.093
945	kaydetmek	Verb	4473	0.093
946	yazılı	Noun	4472	0.093
947	orman	Noun	4467	0.093
948	felsefe	Noun	4464	0.093
949	heyecan	Noun	4457	0.093
950	yaprak	Noun	4455	0.093
951	işbirliği	Noun	4440	0.093
952	dışışleri	Noun	4427	0.092
953	kalabalık	Noun	4423	0.092
954	risk	Noun	4412	0.092

955	galiba	Adv	4410	0.092
956	yasal	Adj	4410	0.092
957	sevinç	Noun	4408	0.092
958	rahatsız	Adj	4380	0.091
959	kış	Noun	4357	0.091
960	cumhurbaş- kanı	Noun	4348	0.091
961	mavi	Adj	4340	0.090
962	sarı	Adj	4340	0.090
963	kuran	Noun	4338	0.090
964	incelemek	Verb	4336	0.090
965	rüzgar	Noun	4335	0.090
966	depresyon	Noun	4317	0.090
967	gönül	Noun	4298	0.090
968	yeter	Adj	4293	0.089
969	birtakım	Adj	4281	0.089
970	kalite	Noun	4271	0.089
971	garip	Adj	4263	0.089
972	klasik	Adj	4250	0.089
973	sefer	Noun	4242	0.088
974	sultan	Noun	4242	0.088
975	spor	Noun	4239	0.088
976	sıkı	Adj	4235	0.088
977	yargı	Noun	4231	0.088
978	tarihsel	Adj	4222	0.088
979	faiz	Noun	4221	0.088
980	kamuoyu	Noun	4209	0.088
981	yetki	Noun	4200	0.088
982	mart	Noun	4199	0.087
983	mesele	Noun	4190	0.087
984	yazık	Noun	4188	0.087
985	maddi	Adj	4186	0.087
986	değerli	Noun	4183	0.087
987	enflasyon	Noun	4181	0.087

988	bugünkü	Noun	4175	0.087	1021	özgür	Adj	3978	0.083
989	politik	Adj	4165	0.087	1022	vatandaş	Noun	3977	0.083
990	denge	Noun	4156	0.087	1023	yeterince	Adv	3972	0.083
991	çalmak	Verb	4151	0.086	1024	maliyet	Noun	3956	0.082
992	il	Noun	4146	0.086	1025	futbol	Noun	3950	0.082
993	sırt	Noun	4142	0.086	1026	özgü	Adj	3936	0.082
994	kesinlikle	Adv	4137	0.086	1027	sabit	Adj	3930	0.082
995	gerektirmek	Verb	4131	0.086	1028	net	Adj	3929	0.082
996	nisan	Noun	4125	0.086	1029	tehdit	Noun	3928	0.082
997	yalan	Noun	4120	0.086	1030	kalem	Noun	3927	0.082
998	emek	Noun	4110	0.086	1031	ticari	Adj	3927	0.082
999	demir	Noun	4100	0.085	1032	kayıp	Adj	3916	0.082
1000	yerli	Adj	4091	0.085	1033	tehlike	Noun	3915	0.082
1001	kasım	Noun	4084	0.085	1034	bebek	Noun	3893	0.081
1002	çizgi	Noun	4077	0.085	1035	takdirde	Postp	3888	0.081
1003	bilinç	Noun	4076	0.085	1036	karşılıklı	Adj	3886	0.081
1004	aylık	Noun	4072	0.085	1037	adalet	Noun	3881	0.081
1005	kayıt	Noun	4072	0.085	1038	yorum	Noun	3872	0.081
1006	renkli	Noun	4068	0.085	1039	devir	Noun	3871	0.081
1007	önlem	Noun	4062	0.085	1040	egemen	Adj	3868	0.081
1008	sıkıntı	Noun	4058	0.085	1041	boyun	Noun	3858	0.080
1009	kocaman	Adj	4051	0.084	1042	denetim	Noun	3854	0.080
1010	bağ	Noun	4050	0.084	1043	zayıf	Adj	3850	0.080
1011	otel	Noun	4050	0.084	1044	analiz	Noun	3838	0.080
1012	gerekse	Conj	4043	0.084	1045	dar	Adj	3836	0.080
1013	kuşkusuz	Noun	4039	0.084	1046	evlilik	Noun	3832	0.080
1014	kapatmak	Verb	4021	0.084	1047	işlev	Noun	3832	0.080
1015	kuru	Adj	4021	0.084	1048	vurgulamak	Verb	3822	0.080
1016	top	Noun	4013	0.084	1049	çoğunluk	Noun	3816	0.080
1017	neyse	Adv	4005	0.083	1050	yürütmek	Verb	3797	0.079
1018	falán	Postp	4000	0.083	1051	benzemek	Verb	3789	0.079
1019	denli	Adj	3999	0.083	1052	terör	Noun	3778	0.079
1020	dönüşmek	Verb	3999	0.083	1053	aşık	Noun	3775	0.079

1054	mutluluk	Adj	3774	0.079	1087	teşvik	Noun	3634	0.076
1055	sonsuz	Noun	3765	0.078	1088	eksik	Noun	3624	0.076
1056	ufak	Adj	3753	0.078	1089	temmuz	Noun	3622	0.075
1057	döviz	Noun	3745	0.078	1090	uyku	Noun	3619	0.075
1058	ek	Noun	3745	0.078	1091	dolaşmak	Verb	3617	0.075
1059	sonradan	Adv	3738	0.078	1092	işsizlik	Noun	3606	0.075
1060	bardak	Noun	3734	0.078	1093	bakım	Noun	3595	0.075
1061	umut	Noun	3734	0.078	1094	usta	Noun	3593	0.075
1062	gülümsemek	Verb	3733	0.078	1095	topluluk	Noun	3581	0.075
1063	kitle	Noun	3730	0.078	1096	sessiz	Adj	3575	0.074
1064	davet	Noun	3725	0.078	1097	ilave	Noun	3568	0.074
1065	yağ	Noun	3725	0.078	1098	katı	Noun	3550	0.074
1066	güzellik	Adj	3720	0.078	1099	işlemek	Verb	3544	0.074
1067	koruma	Noun	3718	0.077	1100	mekan	Noun	3544	0.074
1068	gaz	Noun	3707	0.077	1101	istihdam	Noun	3530	0.074
1069	tarz	Noun	3705	0.077	1102	sağlam	Adj	3515	0.073
1070	zemin	Noun	3703	0.077	1103	geçiş	Noun	3500	0.073
1071	husus	Noun	3701	0.077	1104	temiz	Adj	3493	0.073
1072	tüketim	Noun	3701	0.077	1105	boşluk	Noun	3478	0.072
1073	dede	Noun	3698	0.077	1106	haziran	Noun	3476	0.072
1074	çıkış	Noun	3693	0.077	1107	geçici	Adj	3474	0.072
1075	hastane	Noun	3687	0.077	1108	dal	Noun	3472	0.072
1076	teklif	Noun	3687	0.077	1109	farkında	Noun	3472	0.072
1077	deyiş	Noun	3686	0.077	1110	sürmek	Verb	3471	0.072
1078	yük	Noun	3665	0.076	1111	karşılama	Verb	3466	0.072
1079	servis	Noun	3663	0.076	1112	yurt	Noun	3460	0.072
1080	hata	Noun	3662	0.076	1113	ayakta	Noun	3458	0.072
1081	tuhaf	Adj	3657	0.076	1114	inanç	Noun	3456	0.072
1082	ekim	Noun	3652	0.076	1115	camii	Noun	3455	0.072
1083	yaramak	Verb	3642	0.076	1116	köylü	Noun	3455	0.072
1084	bireysel	Adj	3636	0.076	1117	kalın	Adj	3454	0.072
1085	yanmak	Verb	3636	0.076	1118	tat	Noun	3447	0.072
1086	anamlı	Adj	3634	0.076	1119	kral	Noun	3438	0.072

1120	aykırı	Adj	3436	0.072	1153	dalga	Noun	3244	0.068
1121	ödeme	Noun	3433	0.072	1154	ahlak	Noun	3243	0.068
1122	tuz	Noun	3417	0.071	1155	dizi	Noun	3240	0.068
1123	desteklemek	Verb	3409	0.071	1156	bütçe	Noun	3224	0.067
1124	olgu	Noun	3407	0.071	1157	ucuz	Adj	3216	0.067
1125	eskiden	Adv	3395	0.071	1158	aksine	Adv	3215	0.067
1126	somut	Adj	3383	0.070	1159	kıyı	Noun	3215	0.067
1127	lütfen	Adv	3380	0.070	1160	öğle	Noun	3215	0.067
1128	şans	Noun	3377	0.070	1161	memleket	Noun	3199	0.067
1129	personel	Noun	3362	0.070	1162	yasak	Noun	3199	0.067
1130	sıcaklık	Noun	3360	0.070	1163	cümle	Noun	3192	0.067
1131	çoktan	Adv	3357	0.070	1164	özen	Noun	3190	0.066
1132	kaşık	Noun	3357	0.070	1165	olağanüstü	Adj	3186	0.066
1133	aktif	Adj	3355	0.070	1166	kutsal	Adj	3183	0.066
1134	saha	Noun	3347	0.070	1167	tutum	Noun	3183	0.066
1135	işgal	Noun	3338	0.070	1168	huzur	Noun	3182	0.066
1136	sosyalist	Noun	3335	0.069	1169	psikolojik	Adj	3179	0.066
1137	azalmak	Verb	3333	0.069	1170	devrimci	Adj	3178	0.066
1138	düzenli	Noun	3322	0.069	1171	gümrük	Noun	3178	0.066
1139	sözleşme	Noun	3316	0.069	1172	daima	Adv	3173	0.066
1140	deli	Adj	3309	0.069	1173	laf	Noun	3159	0.066
1141	gerekçe	Noun	3304	0.069	1174	şeker	Noun	3154	0.066
1142	nefes	Noun	3301	0.069	1175	öbür	Adj	3152	0.066
1143	komutan	Noun	3299	0.069	1176	tüketici	Noun	3151	0.066
1144	fiziksel	Adj	3293	0.069	1177	elektronik	Adj	3150	0.066
1145	nihayet	Noun	3291	0.069	1178	şubat	Noun	3141	0.065
1146	bayram	Noun	3290	0.069	1179	aşkın	Noun	3139	0.065
1147	filan	Pron	3286	0.068	1180	işgücü	Noun	3134	0.065
1148	ömür	Noun	3286	0.068	1181	doğum	Noun	3127	0.065
1149	komisyon	Noun	3281	0.068	1182	uçak	Noun	3125	0.065
1150	köpek	Noun	3260	0.068	1183	bağlam	Noun	3121	0.065
1151	süt	Noun	3254	0.068	1184	öneri	Noun	3106	0.065
1152	seviye	Noun	3248	0.068	1185	yaklaşmak	Verb	3094	0.064

1186	halen	Adv	3093	0.064	1219	silahlı	Adj	2992	0.062
1187	islami	Adj	3086	0.064	1220	sayfa	Noun	2987	0.062
1188	metre	Noun	3075	0.064	1221	iktisadi	Adj	2986	0.062
1189	ideolojik	Adj	3074	0.064	1222	belirgin	Adj	2984	0.062
1190	yetenek	Noun	3073	0.064	1223	haydi	Interj	2984	0.062
1191	müdahale	Noun	3072	0.064	1224	harcama	Noun	2974	0.062
1192	teknolojik	Adj	3067	0.064	1225	evrensel	Adj	2973	0.062
1193	teşkil	Noun	3063	0.064	1226	eşya	Noun	2968	0.062
1194	ısrar	Noun	3058	0.064	1227	azınlık	Noun	2966	0.062
1195	bizzat	Adv	3054	0.064	1228	lise	Noun	2966	0.062
1196	sakin	Adj	3052	0.064	1229	eğilim	Noun	2964	0.062
1197	gemi	Noun	3048	0.064	1230	yumuşak	Adj	2959	0.062
1198	dev	Noun	3046	0.063	1231	sürü	Noun	2956	0.062
1199	gençlik	Noun	3046	0.063	1232	içerik	Noun	2955	0.062
1200	öldürmek	Verb	3038	0.063	1233	parmak	Noun	2953	0.062
1201	arz	Noun	3034	0.063	1234	mahkum	Adj	2951	0.061
1202	ortalık	Noun	3031	0.063	1235	gerçi	Adv	2949	0.061
1203	suretiyle	Noun	3026	0.063	1236	üstün	Adj	2949	0.061
1204	emekli	Noun	3021	0.063	1237	cins	Noun	2946	0.061
1205	kılmak	Verb	3015	0.063	1238	imza	Noun	2944	0.061
1206	küresel	Adj	3014	0.063	1239	korkunç	Adj	2942	0.061
1207	yapım	Noun	3013	0.063	1240	kavga	Noun	2935	0.061
1208	saldırı	Noun	3010	0.063	1241	idari	Adj	2930	0.061
1209	artırmak	Verb	3009	0.063	1242	imparatorluk	Noun	2930	0.061
1210	toplu	Adj	3007	0.063	1243	kurban	Noun	2929	0.061
1211	ağustos	Noun	3004	0.063	1244	ak	Adj	2927	0.061
1212	yolculuk	Noun	3004	0.063	1245	potansiyel	Adj	2925	0.061
1213	arzu	Noun	3000	0.063	1246	kaçınılmaz	Adj	2922	0.061
1214	gıda	Noun	2999	0.062	1247	koltuk	Noun	2921	0.061
1215	makine	Noun	2999	0.062	1248	kolayca	Adv	2920	0.061
1216	not	Noun	2998	0.062	1249	inşa	Noun	2917	0.061
1217	tanım	Noun	2993	0.062	1250	ada	Noun	2914	0.061
1218	emniyet	Noun	2992	0.062	1251	transfer	Noun	2913	0.061

1252	anı	Noun	2909	0.061	1285	başlık	Noun	2748	0.057
1253	mutfak	Noun	2908	0.061	1286	intihar	Noun	2748	0.057
1254	ibaret	Postp	2907	0.061	1287	yeryüzü	Noun	2745	0.057
1255	eşlik	Noun	2904	0.061	1288	kimyasal	Adj	2744	0.057
1256	ölü	Noun	2898	0.060	1289	rejim	Noun	2744	0.057
1257	bunca	Adj	2894	0.060	1290	nesne	Noun	2742	0.057
1258	test	Noun	2893	0.060	1291	başlıca	Adj	2736	0.057
1259	saptamak	Verb	2884	0.060	1292	mensup	Noun	2736	0.057
1260	yerleşmek	Verb	2878	0.060	1293	dua	Noun	2733	0.057
1261	soluk	Noun	2875	0.060	1294	cam	Noun	2728	0.057
1262	gelenek	Noun	2874	0.060	1295	namaz	Noun	2725	0.057
1263	parlak	Adj	2870	0.060	1296	ihtimal	Noun	2718	0.057
1264	ilerlemek	Verb	2862	0.060	1297	standart	Noun	2710	0.056
1265	olasılık	Noun	2860	0.060	1298	aç	Adj	2706	0.056
1266	tehlikeli	Adj	2860	0.060	1299	manevi	Adj	2701	0.056
1267	yayılmak	Verb	2850	0.059	1300	uğramak	Verb	2700	0.056
1268	sigorta	Noun	2848	0.059	1301	usul	Noun	2695	0.056
1269	diş	Noun	2843	0.059	1302	sohbet	Noun	2689	0.056
1270	bayan	Noun	2841	0.059	1303	hayli	Adv	2682	0.056
1271	inceleme	Noun	2835	0.059	1304	katılım	Noun	2682	0.056
1272	memnun	Adj	2834	0.059	1305	kurtuluş	Noun	2677	0.056
1273	bağlantı	Noun	2816	0.059	1306	kalkınma	Noun	2674	0.056
1274	amca	Noun	2809	0.059	1307	kapsamak	Verb	2674	0.056
1275	bağlamak	Verb	2809	0.059	1308	yurtdışı	Noun	2673	0.056
1276	aynen	Adv	2804	0.058	1309	mahalle	Noun	2670	0.056
1277	tıp	Noun	2802	0.058	1310	öngörmek	Verb	2667	0.056
1278	çatışma	Noun	2785	0.058	1311	yararlı	Adj	2667	0.056
1279	değişen	Adj	2779	0.058	1312	yapısal	Adj	2664	0.056
1280	temsilci	Noun	2771	0.058	1313	burun	Noun	2663	0.055
1281	ödül	Noun	2770	0.058	1314	kahve	Noun	2662	0.055
1282	kart	Noun	2762	0.058	1315	radyo	Noun	2659	0.055
1283	daire	Noun	2761	0.058	1316	tatil	Noun	2652	0.055
1284	saray	Noun	2758	0.057	1317	olası	Adj	2648	0.055

1318	reklam	Noun	2646	0.055	1351	tesis	Noun	2550	0.053
1319	nükleer	Adj	2642	0.055	1352	dönük	Adj	2545	0.053
1320	ulus	Noun	2637	0.055	1353	yüce	Adj	2541	0.053
1321	karmaşık	Adj	2635	0.055	1354	pratik	Noun	2538	0.053
1322	trafik	Noun	2633	0.055	1355	paket	Noun	2537	0.053
1323	iri	Adj	2630	0.055	1356	vali	Noun	2536	0.053
1324	karşılaşmak	Verb	2630	0.055	1357	planlama	Noun	2534	0.053
1325	mutlak	Adj	2629	0.055	1358	abla	Noun	2531	0.053
1326	önlemek	Verb	2629	0.055	1359	gittikçe	Adv	2529	0.053
1327	hazırlık	Noun	2628	0.055	1360	çevirmek	Verb	2527	0.053
1328	göç	Noun	2620	0.055	1361	karışmak	Verb	2527	0.053
1329	demokrat	Adj	2613	0.054	1362	dürüst	Adj	2523	0.053
1330	hat	Noun	2612	0.054	1363	bedel	Noun	2522	0.053
1331	finansal	Adj	2603	0.054	1364	peygamber	Noun	2520	0.053
1332	saf	Noun	2602	0.054	1365	kulüp	Noun	2511	0.052
1333	basamak	Verb	2599	0.054	1366	tanımlamak	Verb	2509	0.052
1334	gökyüzü	Noun	2599	0.054	1367	müthiş	Adj	2505	0.052
1335	kanal	Noun	2586	0.054	1368	yetersiz	Adj	2505	0.052
1336	strateji	Noun	2584	0.054	1369	aksi	Adj	2504	0.052
1337	turizm	Noun	2584	0.054	1370	döner	Noun	2496	0.052
1338	yahudi	Noun	2584	0.054	1371	beklenti	Noun	2490	0.052
1339	yıllarca	Adv	2584	0.054	1372	korkmak	Verb	2489	0.052
1340	duygusal	Adj	2580	0.054	1373	taze	Noun	2486	0.052
1341	hıristiyan	Noun	2577	0.054	1374	ilim	Noun	2484	0.052
1342	muhalafet	Noun	2576	0.054	1375	halbuki	Conj	2483	0.052
1343	ikna	Noun	2574	0.054	1376	nefret	Noun	2483	0.052
1344	oluşum	Noun	2571	0.054	1377	organ	Noun	2480	0.052
1345	büyükklük	Noun	2568	0.054	1378	dans	Noun	2477	0.052
1346	keyif	Noun	2566	0.053	1379	isimli	Adj	2477	0.052
1347	hukuki	Adj	2565	0.053	1380	yumurta	Noun	2475	0.052
1348	civar	Noun	2562	0.053	1381	hacı	Noun	2473	0.052
1349	fayda	Noun	2554	0.053	1382	yorgun	Adj	2465	0.051
1350	paralel	Adj	2550	0.053	1383	çıplak	Adj	2464	0.051

1384	düş	Noun	2463	0.051	1417	padişah	Noun	2332	0.049
1385	tayin	Noun	2461	0.051	1418	yüzey	Noun	2332	0.049
1386	bağımsızlık	Noun	2459	0.051	1419	dikkatli	Adj	2327	0.048
1387	toz	Noun	2458	0.051	1420	gök	Noun	2327	0.048
1388	kahraman	Noun	2457	0.051	1421	ihmal	Noun	2327	0.048
1389	vadeli	Adj	2451	0.051	1422	ağrı	Noun	2326	0.048
1390	dip	Noun	2446	0.051	1423	bahar	Noun	2326	0.048
1391	koyu	Adj	2439	0.051	1424	gölge	Noun	2325	0.048
1392	verici	Noun	2432	0.051	1425	zavallı	Adj	2323	0.048
1393	verimli	Adj	2432	0.051	1426	özür	Noun	2322	0.048
1394	gayet	Adv	2422	0.050	1427	girişim	Noun	2321	0.048
1395	hazreti	Noun	2420	0.050	1428	mısır	Noun	2316	0.048
1396	akıllı	Adj	2412	0.050	1429	bölgesel	Adj	2315	0.048
1397	meyve	Noun	2408	0.050	1430	zeki	Noun	2313	0.048
1398	alternatif	Noun	2406	0.050	1431	hüzün	Noun	2311	0.048
1399	bildirmek	Verb	2403	0.050	1432	mantık	Noun	2306	0.048
1400	tarif	Noun	2401	0.050	1433	saniiye	Noun	2305	0.048
1401	yararlanmak	Verb	2394	0.050	1434	tedbir	Noun	2302	0.048
1402	kapitalizm	Noun	2392	0.050	1435	dönüş	Noun	2299	0.048
1403	ayrıntılı	Adj	2390	0.050	1436	çap	Noun	2295	0.048
1404	buyurmak	Verb	2386	0.050	1437	anında	Noun	2287	0.048
1405	içki	Noun	2376	0.050	1438	aziz	Adj	2284	0.048
1406	kaza	Noun	2371	0.049	1439	gerçeklik	Noun	2284	0.048
1407	netice	Noun	2370	0.049	1440	birleşmek	Verb	2280	0.048
1408	çil	Noun	2366	0.049	1441	gösterge	Noun	2278	0.047
1409	vakıf	Noun	2366	0.049	1442	kurumsal	Adj	2278	0.047
1410	anahtar	Noun	2361	0.049	1443	inşaat	Noun	2276	0.047
1411	nice	Adj	2357	0.049	1444	eklemek	Verb	2273	0.047
1412	sır	Noun	2352	0.049	1445	öfke	Noun	2273	0.047
1413	salt	Adv	2347	0.049	1446	etik	Noun	2268	0.047
1414	karşıt	Adj	2346	0.049	1447	sessizlik	Noun	2259	0.047
1415	nedense	Postp	2342	0.049	1448	temin	Noun	2254	0.047
1416	stratejik	Adj	2338	0.049	1449	bilinçli	Adj	2252	0.047

1450	batılı	Adj	2239	0.047	1483	bozmak	Verb	2169	0.045
1451	mükemmel	Adj	2239	0.047	1484	puan	Noun	2169	0.045
1452	yönetmen	Noun	2235	0.047	1485	kökenli	Noun	2168	0.045
1453	evren	Noun	2232	0.047	1486	zevk	Noun	2166	0.045
1454	kedi	Noun	2231	0.046	1487	çözmek	Verb	2162	0.045
1455	temas	Noun	2230	0.046	1488	sinir	Noun	2162	0.045
1456	başlıklı	Adj	2228	0.046	1489	vatan	Noun	2158	0.045
1457	tepe	Noun	2228	0.046	1490	eleştiri	Noun	2155	0.045
1458	dağılım	Noun	2226	0.046	1491	ağ	Noun	2152	0.045
1459	pazarlama	Noun	2224	0.046	1492	biyolojik	Adj	2150	0.045
1460	sekreter	Noun	2219	0.046	1493	hapis	Noun	2150	0.045
1461	refah	Noun	2217	0.046	1494	kilo	Noun	2150	0.045
1462	buz	Noun	2216	0.046	1495	alev	Noun	2149	0.045
1463	eleman	Noun	2216	0.046	1496	performans	Noun	2149	0.045
1464	gözlemek	Verb	2213	0.046	1497	inanılmaz	Adj	2142	0.045
1465	hatırlamak	Verb	2210	0.046	1498	dinsel	Adj	2141	0.045
1466	mezun	Adj	2210	0.046	1499	ziyade	Adj	2139	0.045
1467	ahlaki	Adj	2206	0.046	1500	çelik	Noun	2137	0.045
1468	kök	Noun	2201	0.046	1501	direktör	Noun	2130	0.044
1469	esna	Noun	2196	0.046	1502	kuvvetli	Adj	2130	0.044
1470	belirsiz	Adj	2194	0.046	1503	uyumak	Verb	2130	0.044
1471	düz	Adj	2194	0.046	1504	alkol	Noun	2129	0.044
1472	ümit	Noun	2194	0.046	1505	yoksul	Noun	2127	0.044
1473	otobüs	Noun	2193	0.046	1506	oluş	Noun	2124	0.044
1474	akım	Noun	2192	0.046	1507	darbe	Noun	2118	0.044
1475	verimlilik	Noun	2190	0.046	1508	tarımsal	Adj	2111	0.044
1476	etnik	Adj	2185	0.046	1509	itiraz	Noun	2110	0.044
1477	yavru	Noun	2179	0.045	1510	ithal	Noun	2108	0.044
1478	okur	Noun	2178	0.045	1511	şaşkın	Adj	2108	0.044
1479	birdenbire	Adv	2174	0.045	1512	ağırlıklı	Adj	2106	0.044
1480	asit	Noun	2172	0.045	1513	devre	Noun	2102	0.044
1481	kapitalist	Noun	2172	0.045	1514	matematik	Noun	2102	0.044
1482	sarılmak	Verb	2172	0.045	1515	dolaylı	Adj	2100	0.044

1516	tahta	Noun	2100	0.044	1549	onca	Adj	2007	0.042
1517	birşey	Pron	2099	0.044	1550	kararlı	Adj	2005	0.042
1518	kolaylık	Adj	2095	0.044	1551	kilise	Noun	2002	0.042
1519	çekici	Adj	2091	0.044	1552	gereksinim	Noun	1998	0.042
1520	bankacılık	Noun	2090	0.044	1553	uçmak	Verb	1996	0.042
1521	bütünlük	Adj	2087	0.043	1554	yetmek	Verb	1995	0.042
1522	komşu	Noun	2084	0.043	1555	hediyeye	Noun	1993	0.042
1523	etken	Noun	2083	0.043	1556	yetiştirmek	Verb	1993	0.042
1524	yoksun	Adj	2082	0.043	1557	yürürlük	Noun	1990	0.041
1525	organik	Adj	2076	0.043	1558	yiyecek	Noun	1989	0.041
1526	yaratıcı	Adj	2076	0.043	1559	takılmak	Verb	1984	0.041
1527	gündüz	Noun	2075	0.043	1560	ihraç	Noun	1979	0.041
1528	hazine	Noun	2072	0.043	1561	mekanizma	Noun	1978	0.041
1529	yıldırım	Noun	2072	0.043	1562	kanat	Noun	1975	0.041
1530	besin	Noun	2070	0.043	1563	dik	Adj	1974	0.041
1531	evvel	Postp	2069	0.043	1564	istifa	Noun	1968	0.041
1532	ilçe	Noun	2067	0.043	1565	futbolcu	Noun	1964	0.041
1533	egemenlik	Adj	2063	0.043	1566	maruz	Adj	1963	0.041
1534	tanık	Noun	2059	0.043	1567	kalıcı	Adj	1961	0.041
1535	ekran	Noun	2050	0.043	1568	komünist	Noun	1961	0.041
1536	şimdilik	Adv	2049	0.043	1569	dudak	Noun	1960	0.041
1537	eşitlik	Adj	2048	0.043	1570	istikrar	Noun	1960	0.041
1538	ideal	Noun	2044	0.043	1571	maliye	Noun	1955	0.041
1539	üyelik	Noun	2042	0.043	1572	ton	Noun	1954	0.041
1540	yahut	Conj	2034	0.042	1573	kapsamlı	Adj	1953	0.041
1541	yalnızlık	Adj	2033	0.042	1574	kısmen	Adv	1950	0.041
1542	kör	Adj	2032	0.042	1575	zararlı	Adj	1950	0.041
1543	başkent	Noun	2028	0.042	1576	estetik	Noun	1947	0.041
1544	fon	Noun	2026	0.042	1577	pırlı	Adj	1947	0.041
1545	kurtulmak	Verb	2020	0.042	1578	kurtarmak	Verb	1944	0.041
1546	pozitif	Adj	2015	0.042	1579	aşmak	Verb	1942	0.040
1547	şiddetli	Adj	2013	0.042	1580	operasyon	Noun	1940	0.040
1548	şikayet	Noun	2008	0.042	1581	uğruna	Noun	1937	0.040

1582	şaşırmak	Verb	1936	0.040	1615	uyumlu	Adj	1886	0.039
1583	alışveriş	Noun	1935	0.040	1616	haksız	Adj	1885	0.039
1584	lig	Noun	1930	0.040	1617	başlatmak	Verb	1884	0.039
1585	imalat	Noun	1929	0.040	1618	kongre	Noun	1880	0.039
1586	rüya	Noun	1928	0.040	1619	cezaevi	Noun	1879	0.039
1587	uyuşturucu	Noun	1928	0.040	1620	laik	Adj	1878	0.039
1588	derhal	Adv	1925	0.040	1621	uzatmak	Verb	1878	0.039
1589	konut	Noun	1925	0.040	1622	cuma	Noun	1876	0.039
1590	ötürü	Postp	1924	0.040	1623	sahte	Adj	1876	0.039
1591	sessizce	Adv	1922	0.040	1624	içten	Adj	1869	0.039
1592	karışık	Adj	1921	0.040	1625	kaba	Adj	1869	0.039
1593	maalesef	Adv	1921	0.040	1626	ayrım	Noun	1868	0.039
1594	katmak	Verb	1919	0.040	1627	pembe	Noun	1867	0.039
1595	karakter	Noun	1917	0.040	1628	aslan	Noun	1866	0.039
1596	ideoloji	Noun	1915	0.040	1629	özgün	Adj	1865	0.039
1597	sınav	Noun	1915	0.040	1630	tasarım	Noun	1859	0.039
1598	ikili	Adj	1913	0.040	1631	ruhsal	Adj	1856	0.039
1599	sıvı	Adj	1913	0.040	1632	istihbarat	Noun	1853	0.039
1600	öylece	Adv	1912	0.040	1633	ödemek	Verb	1853	0.039
1601	birikim	Noun	1903	0.040	1634	razı	Adj	1853	0.039
1602	şüphesiz	Adv	1903	0.040	1635	kuşak	Noun	1852	0.039
1603	suçlu	Adj	1900	0.040	1636	hikmet	Noun	1851	0.039
1604	mesleki	Adj	1898	0.040	1637	numara	Noun	1851	0.039
1605	burjuva	Adj	1895	0.039	1638	ilahi	Adj	1850	0.039
1606	keskin	Noun	1895	0.039	1639	ayrımak	Verb	1847	0.038
1607	rakip	Adj	1893	0.039	1640	pahalı	Adj	1844	0.038
1608	gereksiz	Adj	1892	0.039	1641	çocukluk	Noun	1843	0.038
1609	yön	Noun	1891	0.039	1642	plastik	Noun	1843	0.038
1610	uymak	Verb	1890	0.039	1643	selam	Noun	1843	0.038
1611	kapasite	Noun	1889	0.039	1644	liberal	Adj	1841	0.038
1612	küçücük	Adj	1889	0.039	1645	fena	Adj	1838	0.038
1613	zafer	Noun	1887	0.039	1646	tasarruf	Noun	1835	0.038
1614	fonksiyon	Noun	1886	0.039	1647	şampiyon	Noun	1834	0.038

1648	yayımlamak	Verb	1833	0.038	1681	fakülte	Noun	1783	0.037
1649	açlık	Noun	1831	0.038	1682	cesaret	Noun	1781	0.037
1650	gerçekçi	Adj	1831	0.038	1683	birleşik	Adj	1779	0.037
1651	merdiven	Noun	1831	0.038	1684	sırf	Adv	1779	0.037
1652	meydan	Noun	1829	0.038	1685	bulgu	Noun	1775	0.037
1653	kaya	Noun	1828	0.038	1686	güçlük	Noun	1773	0.037
1654	heyet	Noun	1826	0.038	1687	eğlence	Noun	1772	0.037
1655	alay	Noun	1824	0.038	1688	hassas	Adj	1769	0.037
1656	reform	Noun	1823	0.038	1689	gayri	Adv	1767	0.037
1657	ithalat	Noun	1819	0.038	1690	amaçlı	Adj	1766	0.037
1658	susmak	Verb	1819	0.038	1691	evlat	Noun	1766	0.037
1659	süreli	Adj	1819	0.038	1692	hayret	Noun	1765	0.037
1660	terim	Noun	1818	0.038	1693	epey	Adv	1764	0.037
1661	yanısıra	Adv	1818	0.038	1694	soyut	Adj	1764	0.037
1662	zorunluluk	Adj	1813	0.038	1695	düzgün	Adj	1763	0.037
1663	insanoğlu	Noun	1812	0.038	1696	hafifçe	Adv	1763	0.037
1664	teşkilat	Noun	1811	0.038	1697	gönüllü	Adj	1756	0.037
1665	kirli	Adj	1810	0.038	1698	tren	Noun	1755	0.037
1666	basınç	Noun	1805	0.038	1699	boşuna	Adv	1749	0.036
1667	bayrak	Noun	1802	0.038	1700	ağa	Noun	1746	0.036
1668	kırık	Noun	1801	0.038	1701	muhteşem	Adj	1746	0.036
1669	işkence	Noun	1800	0.038	1702	marka	Noun	1744	0.036
1670	kırsal	Adj	1800	0.038	1703	itiraf	Noun	1743	0.036
1671	çare	Noun	1796	0.037	1704	rakam	Noun	1743	0.036
1672	hariç	Noun	1796	0.037	1705	kurucu	Noun	1742	0.036
1673	soruşturma	Noun	1796	0.037	1706	göğüs	Noun	1740	0.036
1674	olanaksız	Adj	1793	0.037	1707	kanlı	Noun	1738	0.036
1675	şarap	Noun	1790	0.037	1708	ortaklık	Noun	1738	0.036
1676	tavsiye	Noun	1789	0.037	1709	yarar	Noun	1738	0.036
1677	güvenli	Adj	1788	0.037	1710	tatmin	Noun	1735	0.036
1678	otomobil	Noun	1787	0.037	1711	arazi	Noun	1734	0.036
1679	popüler	Adj	1787	0.037	1712	gözyaşı	Noun	1734	0.036
1680	genelkurmay	Noun	1784	0.037	1713	kapak	Noun	1731	0.036

1714	şeref	Noun	1731	0.036	1747	buçuk	Adj	1682	0.035
1715	gümüş	Noun	1730	0.036	1748	çığlık	Noun	1682	0.035
1716	başlı	Postp	1728	0.036	1749	vazgeçmek	Verb	1682	0.035
1717	yerleşim	Noun	1727	0.036	1750	sadık	Adj	1681	0.035
1718	hürriyet	Noun	1725	0.036	1751	disiplin	Noun	1680	0.035
1719	şoför	Noun	1721	0.036	1752	tur	Noun	1677	0.035
1720	sergi	Noun	1720	0.036	1753	sosyalizm	Noun	1676	0.035
1721	teker	Noun	1720	0.036	1754	araştırmacı	Noun	1674	0.035
1722	çetin	Noun	1719	0.036	1755	çirkin	Adj	1674	0.035
1723	gol	Noun	1719	0.036	1756	insani	Adj	1674	0.035
1724	teori	Noun	1716	0.036	1757	iptal	Noun	1674	0.035
1725	bulut	Noun	1714	0.036	1758	deri	Noun	1672	0.035
1726	ani	Adj	1711	0.036	1759	şimdiki	Adj	1667	0.035
1727	ayna	Noun	1710	0.036	1760	gösteri	Noun	1657	0.035
1728	eksiklik	Noun	1708	0.036	1761	motor	Noun	1656	0.035
1729	tamamlamak	Verb	1708	0.036	1762	ihale	Noun	1655	0.034
1730	tutar	Noun	1707	0.036	1763	isyan	Noun	1655	0.034
1731	adil	Adj	1706	0.036	1764	parasal	Adj	1654	0.034
1732	uyanmak	Verb	1706	0.036	1765	imkansız	Adj	1651	0.034
1733	yetişmek	Verb	1706	0.036	1766	boyu	Adj	1648	0.034
1734	kritik	Adj	1705	0.036	1767	varolmak	Verb	1647	0.034
1735	bilhassa	Adv	1703	0.035	1768	işadamı	Noun	1645	0.034
1736	çorba	Noun	1703	0.035	1769	müdürlük	Noun	1644	0.034
1737	finans	Noun	1703	0.035	1770	özlem	Noun	1644	0.034
1738	melek	Noun	1700	0.035	1771	fabrika	Noun	1637	0.034
1739	ekip	Noun	1697	0.035	1772	giysi	Noun	1634	0.034
1740	kiraz	Noun	1697	0.035	1773	imam	Noun	1634	0.034
1741	hayali	Adj	1692	0.035	1774	ayrıntı	Noun	1633	0.034
1742	taban	Noun	1690	0.035	1775	denk	Noun	1633	0.034
1743	evli	Adj	1689	0.035	1776	acil	Adj	1632	0.034
1744	duyarlı	Adj	1688	0.035	1777	park	Noun	1630	0.034
1745	alıcı	Noun	1687	0.035	1778	mesut	Noun	1629	0.034
1746	yüklü	Adj	1687	0.035	1779	teorik	Adj	1628	0.034

1780	hitap	Noun	1625	0.034	1813	göl	Noun	1575	0.033
1781	niyet	Noun	1624	0.034	1814	kaygı	Noun	1574	0.033
1782	radikal	Adj	1621	0.034	1815	güvenilir	Adj	1573	0.033
1783	genetik	Noun	1612	0.034	1816	değın	Postp	1572	0.033
1784	aniden	Adv	1611	0.034	1817	meşhur	Noun	1570	0.033
1785	anmak	Verb	1608	0.034	1818	aydınlık	Adj	1569	0.033
1786	sözkonusu	Adj	1605	0.033	1819	kurşun	Noun	1566	0.033
1787	koç	Noun	1603	0.033	1820	imar	Noun	1565	0.033
1788	celal	Noun	1602	0.033	1821	çağrı	Noun	1562	0.033
1789	federal	Adj	1602	0.033	1822	şeyh	Noun	1562	0.033
1790	rica	Noun	1601	0.033	1823	akademik	Adj	1561	0.033
1791	birara	Adj	1600	0.033	1824	heykel	Noun	1560	0.033
1792	öge	Noun	1600	0.033	1825	ihtiyar	Noun	1559	0.032
1793	bağımlı	Adj	1598	0.033	1826	madem	Conj	1557	0.032
1794	herşey	Pron	1598	0.033	1827	profesyonel	Adj	1557	0.032
1795	sallamak	Verb	1598	0.033	1828	faydalı	Adj	1556	0.032
1796	yapay	Adj	1594	0.033	1829	kaptan	Noun	1556	0.032
1797	fizik	Noun	1593	0.033	1830	masum	Adj	1555	0.032
1798	sabır	Noun	1592	0.033	1831	acele	Adj	1554	0.032
1799	dilim	Noun	1591	0.033	1832	ressam	Noun	1554	0.032
1800	gazi	Noun	1590	0.033	1833	organize	Adj	1553	0.032
1801	alım	Noun	1589	0.033	1834	mühendislik	Noun	1552	0.032
1802	profesör	Noun	1586	0.033	1835	coğrafi	Adj	1550	0.032
1803	turist	Noun	1586	0.033	1836	nur	Noun	1549	0.032
1804	sandık	Noun	1585	0.033	1837	delikanlı	Noun	1548	0.032
1805	cephe	Noun	1584	0.033	1838	katlı	Noun	1548	0.032
1806	mobil	Adj	1584	0.033	1839	bozuk	Adj	1547	0.032
1807	beton	Noun	1581	0.033	1840	deneyim	Noun	1546	0.032
1808	laiklik	Adj	1581	0.033	1841	takdir	Noun	1546	0.032
1809	otomatik	Adj	1580	0.033	1842	şef	Noun	1545	0.032
1810	metal	Noun	1578	0.033	1843	moda	Noun	1543	0.032
1811	sezon	Noun	1578	0.033	1844	damla	Noun	1542	0.032
1812	apartman	Noun	1576	0.033	1845	tipik	Adj	1540	0.032

1846	kamusal	Adj	1539	0.032	1879	konmak	Verb	1495	0.031
1847	kucak	Noun	1539	0.032	1880	kader	Noun	1490	0.031
1848	şaşkınlık	Adj	1538	0.032	1881	yuvarlak	Adj	1490	0.031
1849	anlamsız	Adj	1537	0.032	1882	yolcu	Noun	1489	0.031
1850	dostluk	Noun	1534	0.032	1883	ilkel	Adj	1488	0.031
1851	kanser	Noun	1534	0.032	1884	dişi	Noun	1486	0.031
1852	minik	Adj	1534	0.032	1885	protesto	Noun	1486	0.031
1853	ısı	Noun	1533	0.032	1886	zorluk	Noun	1486	0.031
1854	dinamik	Noun	1532	0.032	1887	dağıttım	Noun	1485	0.031
1855	şehit	Noun	1532	0.032	1888	muhafaza	Noun	1484	0.031
1856	beslenme	Noun	1531	0.032	1889	söylem	Noun	1483	0.031
1857	çarpıcı	Verb	1531	0.032	1890	yatay	Adj	1482	0.031
1858	jandarma	Noun	1530	0.032	1891	hisse	Noun	1478	0.031
1859	kilometre	Noun	1527	0.032	1892	rahatlıkla	Adv	1478	0.031
1860	yayınlamak	Verb	1527	0.032	1893	konferans	Noun	1474	0.031
1861	üstünlük	Noun	1525	0.032	1894	örtülü	Adj	1474	0.031
1862	uğur	Noun	1521	0.032	1895	perde	Noun	1474	0.031
1863	lan	Slang	1520	0.032	1896	fakir	Noun	1473	0.031
1864	meğer	Conj	1520	0.032	1897	içişleri	Noun	1472	0.031
1865	general	Noun	1518	0.032	1898	şükür	Noun	1472	0.031
1866	kaliteli	Adj	1514	0.032	1899	adlandırmak	Verb	1471	0.031
1867	teyze	Noun	1514	0.032	1900	yangın	Noun	1471	0.031
1868	çaresiz	Adj	1513	0.032	1901	video	Noun	1470	0.031
1869	samimi	Adj	1510	0.031	1902	çatı	Noun	1465	0.031
1870	kampanya	Noun	1509	0.031	1903	nitelikli	Adj	1465	0.031
1871	federasyon	Noun	1504	0.031	1904	evlenmek	Verb	1461	0.030
1872	uzay	Noun	1504	0.031	1905	görünüm	Noun	1457	0.030
1873	gayret	Noun	1503	0.031	1906	onay	Noun	1456	0.030
1874	sarmak	Verb	1499	0.031	1907	sendika	Noun	1456	0.030
1875	gövde	Noun	1498	0.031	1908	tören	Noun	1456	0.030
1876	zihinsel	Adj	1498	0.031	1909	boya	Noun	1453	0.030
1877	engellemek	Verb	1496	0.031	1910	liste	Noun	1452	0.030
1878	asgari	Adj	1495	0.031	1911	emperyalist	Adj	1449	0.030

1912	ayıp	Noun	1446	0.030	1945	iyilik	Noun	1396	0.029
1913	zihin	Noun	1446	0.030	1946	bay	Noun	1395	0.029
1914	ilkokul	Noun	1445	0.030	1947	iklim	Noun	1395	0.029
1915	telaş	Noun	1445	0.030	1948	numaralı	Adj	1395	0.029
1916	alışkanlık	Noun	1444	0.030	1949	bacak	Noun	1393	0.029
1917	altyapı	Noun	1439	0.030	1950	icra	Noun	1392	0.029
1918	negatif	Noun	1438	0.030	1951	yara	Noun	1392	0.029
1919	güncel	Adj	1434	0.030	1952	inşallah	Interj	1391	0.029
1920	felsefî	Adj	1433	0.030	1953	görsel	Adj	1390	0.029
1921	defter	Noun	1431	0.030	1954	köklü	Adj	1390	0.029
1922	yazılım	Noun	1428	0.030	1955	beyefendi	Noun	1389	0.029
1923	belirmek	Verb	1426	0.030	1956	iman	Noun	1389	0.029
1924	hacim	Noun	1426	0.030	1957	resmen	Adv	1389	0.029
1925	konuk	Noun	1426	0.030	1958	garanti	Noun	1388	0.029
1926	lüks	Noun	1423	0.030	1959	inkar	Noun	1387	0.029
1927	nesnel	Adj	1423	0.030	1960	meraklı	Adj	1387	0.029
1928	sözde	Noun	1423	0.030	1961	yoğunluk	Adj	1386	0.029
1929	sebze	Noun	1420	0.030	1962	mühendis	Noun	1385	0.029
1930	şahıs	Noun	1418	0.030	1963	sayısal	Adj	1385	0.029
1931	iktisat	Noun	1413	0.029	1964	zorlu	Adj	1383	0.029
1932	azaltmak	Verb	1412	0.029	1965	yepyeni	Adj	1382	0.029
1933	cumartesi	Noun	1412	0.029	1966	satır	Noun	1378	0.029
1934	deneme	Noun	1411	0.029	1967	esmek	Verb	1375	0.029
1935	sevimli	Adj	1411	0.029	1968	gündelik	Adj	1375	0.029
1936	oksijen	Noun	1405	0.029	1969	menkul	Adj	1375	0.029
1937	sayısız	Adj	1405	0.029	1970	kuşku	Noun	1374	0.029
1938	süper	Adj	1404	0.029	1971	pamuk	Noun	1374	0.029
1939	tuvalet	Noun	1403	0.029	1972	kum	Noun	1373	0.029
1940	özelleştirme	Noun	1400	0.029	1973	sevk	Noun	1372	0.029
1941	yavaşça	Adv	1400	0.029	1974	sulama	Noun	1372	0.029
1942	finansman	Noun	1399	0.029	1975	harp	Noun	1367	0.028
1943	kusur	Noun	1398	0.029	1976	komik	Noun	1365	0.028
1944	güneydoğu	Noun	1397	0.029	1977	endişe	Noun	1363	0.028

1978	kahverengi	Adj	1363	0.028
1979	masal	Noun	1363	0.028
1980	protein	Noun	1363	0.028
1981	kızıl	Adj	1358	0.028
1982	üretici	Noun	1356	0.028
1983	harika	Adj	1354	0.028
1984	medeni	Adj	1352	0.028
1985	zeka	Noun	1352	0.028
1986	ahşap	Adj	1351	0.028
1987	albüm	Noun	1350	0.028
1988	boru	Noun	1350	0.028
1989	has	Adj	1350	0.028
1990	yaralı	Adj	1349	0.028
1991	ipek	Adj	1347	0.028
1992	tedirgin	Adj	1345	0.028
1993	büyükşehir	Noun	1344	0.028
1994	sarhoş	Noun	1344	0.028
1995	burjuvazi	Noun	1342	0.028
1996	gurur	Noun	1342	0.028
1997	seçenek	Noun	1342	0.028
1998	boyutlu	Adj	1339	0.028
1999	şeytan	Noun	1338	0.028
2000	gözaltı	Noun	1337	0.028

Appendix 11 The First 100 Words According to Part of Speech (The General Turkish Wordlist)

	Verbs	Nouns	Adjectives	Adverbs	Others
1	olmak	iç	son	çok	ve
2	etmek	yer	büyük	daha	bu
3	yapmak	yıl	böyle	en	o
4	demek	ara	yeni	hiç	için
5	almak	zaman	ilk	bile	ben
6	vermek	insan	iyi	nasıl	gibi
7	gelmek	var	önemli	şimdi	kendi
8	istemek	şey	bütün	artık	ne
9	görmek	gün	aynı	yine	ile
10	çıkmaq	el	başka	öyle	sonra
11	gitmek	iş	doğru	sadece	her
12	bilmek	yan	ön	hemen	ama
13	kalmak	üzeri	diğer	belki	kadar
14	söylemek	konu	alt	geri	değil
15	başlamak	baş	dış	hep	biz
16	bakmak	yol	tek	pek	ya
17	bulunmak	yok	bazı	özellikle	ise
18	bulmak	ülke	genel	yeniden	sen
19	kullanmak	neden	fazla	şöyle	önce
20	oluşmak	çocuk	üst	ayrıca	diye
21	göstermek	dünya	az	zaten	karşı
22	getirmek	kadın	küçük	evet	göre
23	geçmek	orta	güzel	aslında	biri
24	yaşamak	durum	uzun	sanki	ancak
25	girmek	göz	tam	hala	siz
26	gerekmek	hal	biraz	sürekli	veya
27	düşünmek	alan	yüksek	sık	hem
28	açmak	ev	genç	gerçekten	şu
29	çalışmak	söz	açık	tekrar	birlikte
30	varmak	şekil	eski	yalnızca	çünkü
31	sağlamak	devlet	özel	bazen	tüm
32	durmak	kişi	belli	peki	tarafından
33	kurmak	bura	mümkün	birden	yani
34	dönmek	dönem	uygun	henüz	ilgili
35	anlamak	su	ekonomik	elbette	kim

36	konuşmak	sonuç	sosyal	genellikle	hiçbir
37	belirtmek	sahip	geçen	üstelik	birbiri
38	çekmek	adam	kısa	iyice	işte
39	anlatmak	sıra	zor	acaba	üzere
40	yazmak	hayat	çeşitli	gene	fakat
41	bırakmak	çalışma	hangi	tamamen	gerek
42	beklemek	kız	uzak	neredeysse	hatta
43	düşmek	tarih	türlü	niye	hepsi
44	atmak	ad	ayrı	mutlaka	birkaç
45	çıkarmak	baba	toplumsal	erken	tabi
46	koymak	anne	kötü	asla	olsa
47	tutmak	bilgi	uluslararası	herhalde	bağlı
48	gerekmek	ses	gerekli	adeta	birçok
49	duymak	gelen	yalnız	kısaca	eğer
50	okumak	sorun	benzer	nitekim	nerede
51	oturmak	karar	geçmiş	iken	hakkında
52	sormak	örnek	siyasi	açıkça	rağmen
53	taşımak	sistem	milli	niçin	ait
54	artmak	ilişki	ağır	galiba	ilişkin
55	sevmek	süre	geniş	kesinlikle	oysa
56	araştırma	para	doğal	neyse	yoksa
57	gelişme	toplum	kolay	yeterince	dolayısı
58	kazanmak	güç	siyasal	sonradan	yönelik
59	belirlemek	yüz	zorunda	eskiden	boyunca
60	sürmek	an	herhangi	lütfen	bakımından
61	aramak	ay	dolu	çoktan	yüzden
62	yaratmak	olay	yanlış	aksine	beri
63	bitmek	dil	teknik	daima	dolayı
64	geçirmek	eğitim	beraber	halen	itibaren
65	gerçekleşmek	hareket	asıl	bizzat	karşın
66	tanımak	hak	ciddi	gerçi	dahil
67	öğrenmek	halk	adlı	kolayca	saye
68	kalkmak	kabul	yavaş	aynen	hele
69	katılmak	kez	beyaz	hayli	mesela
70	görünmek	devam	yaklaşık	yıllarca	yüzünden
71	büyüme	farklı	yıllık	gittikçe	dahi
72	ayrılmak	gerçek	güçlü	gayet	dek
73	hazırlamak	bugün	değişik	salt	dair

74	izlemek	bölge	askeri	birdenbire	zira
75	yürümek	gece	ulusal	şimdilik	dayalı
76	ulaşmak	kapı	düşük	kısmen	gerekse
77	ölmek	ora	mevcut	derhal	falan
78	uygulamak	biçim	derin	sessizce	takdirde
79	düzenlemek	saat	boş	maalesef	filan
80	dolmak	yaşam	hızlı	öylece	haydi
81	inanmak	grup	kaç	şüphesiz	ibaret
82	oynamak	kitap	resmi	yanısıra	halbuki
83	doğmak	değer	ters	sırf	nedense
84	tartışma	arkadaş	başarılı	gayri	birşey
85	açıklamak	kimse	yeterli	epey	evvel
86	korumak	erkek	kara	hafifçe	yahut
87	değişmek	herkes	doğrudan	boşuna	ötürü
88	toplamak	sayı	mutlu	bilhassa	başlı
89	sanmak	yapı	ince	aniden	herşey
90	satmak	oran	ünlü	rahatlıkla	değın
91	geliştirmek	parti	etkili	yavaşça	madem
92	idi	aile	belirli	resmen	lan
93	içermek	temel	sıcak		meğer
94	değerlendir- mek	tür	hoş		inşallah
95	dinlemek	yakın	yerel		
96	kesmek	yaş	yaşlı		
97	yükselmek	bey	gizli		
98	dayanmak	gelir	yoğun		
99	savunmak	amaç	ilginç		
100	gelişmek	yönetim	olumlu		

Appendix 12 The Academic Turkish Wordlist (1010 Words)

*in 10 000 words

No	Words (Lemmas)	Type	Freq	%*				
1	öğrenmek	Verb	7913	24.00	31	ortam	Noun	4068 12.00
2	davranış	Noun	7313	22.00	32	etkinlik	Noun	4046 12.00
3	belirlemek	Verb	7174	22.00	33	tanımlamak	Verb	3878 12.00
4	işletme	Noun	7164	22.00	34	geliştirmek	Verb	3829 12.00
5	birey	Noun	6945	21.00	35	hüküm	Noun	3826 12.00
6	gelişim	Noun	6840	21.00	36	koşul	Noun	3821 12.00
7	kavram	Noun	6331	19.00	37	artmak	Verb	3812 11.00
8	sözleşme	Noun	5950	18.00	38	politika	Noun	3783 11.00
9	aşağı	Noun	5912	18.00	39	nitelik	Noun	3770 11.00
10	işlem	Noun	5858	18.00	40	sınıf	Noun	3704 11.00
11	oluşturmak	Verb	5806	18.00	41	yöntem	Noun	3669 11.00
12	yanıt	Noun	5635	17.00	42	kurulmak	Verb	3584 11.00
13	kanun	Noun	5580	17.00	43	yapılanmak	Verb	3517 11.00
14	geçirmek	Verb	5380	16.00	44	öğretim	Noun	3508 11.00
15	kurum	Noun	5148	16.00	45	faaliyet	Noun	3504 11.00
16	açıklamak	Verb	5091	16.00	46	yaklaşım	Noun	3472 10.00
17	uygulama	Noun	4997	15.00	47	ulaşmak	Verb	3423 10.00
18	varlık	Noun	4927	15.00	48	talep	Noun	3412 10.00
19	araç	Noun	4867	15.00	49	korumak	Verb	3408 10.00
20	uygulamak	Verb	4804	15.00	50	ürün	Noun	3391 10.00
21	değerlendirmek	Verb	4754	14.00	51	sermaye	Noun	3274 10.00
22	ilişkin	Postp	4736	14.00	52	gerçekleşmek	Verb	3259 10.00
23	suç	Noun	4718	14.00	53	yönelik	Postp	3221 10.00
24	meslek	Noun	4640	14.00	54	açısından	Postp	3148 9.00
25	iletişim	Noun	4495	14.00	55	ekonomi	Noun	3147 9.00
26	mal	Noun	4336	13.00	56	düzenlemek	Verb	3109 9.00
27	toplumsal	Adj	4190	13.00	57	kuram	Noun	3088 9.00
28	ilke	Noun	4173	13.00	58	araştırma	Noun	3087 9.00
29	kural	Noun	4079	12.00	59	kültür	Noun	3062 9.00
30	gerçekleştirmek	Verb	4071	12.00	60	taşımak	Verb	3052 9.00
					61	tanımak	Verb	3027 9.00

62	çeşitli	Adj	3025	9.00	95	hız	Noun	2581	8.00
63	görüş	Noun	3014	9.00	96	belirli	Adj	2576	8.00
64	zarar	Noun	2991	9.00	97	karşılık	Noun	2559	8.00
65	hesap	Noun	2973	9.00	98	kontrol	Noun	2537	7.00
66	yaratmak	Verb	2973	9.00	99	kısım	Noun	2531	7.00
67	ihtiyaç	Noun	2969	9.00	100	etkilemek	Verb	2478	7.00
68	ceza	Noun	2923	9.00	101	incelemek	Verb	2469	7.00
69	değişmek	Verb	2910	9.00	102	teknik	Adj	2452	7.00
70	model	Noun	2904	9.00	103	izlemek	Verb	2449	7.00
71	hedef	Noun	2874	9.00	104	etkili	Adj	2440	7.00
72	gelişme	Noun	2870	9.00	105	değiştirmek	Verb	2429	7.00
73	gerekli	Adj	2859	8.00	106	medya	Noun	2414	7.00
74	teknoloji	Noun	2853	8.00	107	rol	Noun	2410	7.00
75	kazanmak	Verb	2836	8.00	108	aşama	Noun	2403	7.00
76	toplam	Noun	2832	8.00	109	bilim	Noun	2396	7.00
77	sunmak	Verb	2813	8.00	110	kuruluş	Noun	2395	7.00
78	sanat	Noun	2775	8.00	111	nesne	Noun	2388	7.00
79	miktar	Noun	2770	8.00	112	finansal	Adj	2387	7.00
80	yetki	Noun	2770	8.00	113	sürmek	Verb	2386	7.00
81	üretmek	Verb	2766	8.00	114	ticaret	Noun	2374	7.00
82	fiyat	Noun	2760	8.00	115	birim	Noun	2372	7.00
83	kamu	Noun	2742	8.00	116	ortak	Adj	2350	7.00
84	üye	Noun	2730	8.00	117	pay	Noun	2346	7.00
85	değişim	Noun	2709	8.00	118	dolayısıyla	Adv	2334	7.00
86	içermek	Verb	2691	8.00	119	felsefe	Noun	2310	7.00
87	kullanım	Noun	2686	8.00	120	örgüt	Noun	2307	7.00
88	beceri	Noun	2650	8.00	121	gereksinim	Noun	2301	7.00
89	şirket	Noun	2642	8.00	122	dayanmak	Verb	2278	7.00
90	sorumluluk	Noun	2640	8.00	123	değişiklik	Noun	2273	7.00
91	ödemek	Verb	2637	8.00	124	unsur	Noun	2268	7.00
92	risk	Noun	2630	8.00	125	içerik	Noun	2241	7.00
93	önem	Noun	2623	8.00	126	işlemek	Verb	2240	7.00
94	denge	Noun	2592	8.00	127	azalmak	Verb	2237	7.00

128	işlev	Noun	2235	7.00	161	derece	Noun	1970	6.00
129	fonksiyon	Noun	2225	6.00	162	yönetici	Noun	1956	6.00
130	doğmak	Verb	2213	6.00	163	inanç	Noun	1953	6.00
131	plan	Noun	2197	6.00	164	güvenlik	Noun	1950	6.00
132	sebep	Noun	2194	6.00	165	farklılık	Noun	1934	6.00
133	anlayış	Noun	2174	6.00	166	kapsam	Noun	1912	6.00
134	benzer	Adj	2149	6.00	167	yararlanmak	Verb	1910	6.00
135	seçmek	Verb	2148	6.00	168	doğrudan	Adj	1904	5.00
136	ücret	Noun	2134	6.00	169	eylem	Noun	1904	5.00
137	yardım	Noun	2130	6.00	170	organ	Noun	1902	5.00
138	ait	Postp	2125	6.00	171	satmak	Verb	1879	5.00
139	doğal	Adj	2105	6.00	172	bireysel	Adj	1865	5.00
140	yürütmek	Verb	2097	6.00	173	anahtar	Noun	1862	5.00
141	yasa	Noun	2097	6.00	174	planlamak	Verb	1834	5.00
142	öngörmek	Verb	2097	6.00	175	sigorta	Noun	1824	5.00
143	fiziksel	Adj	2093	6.00	176	devralmak	Verb	1818	5.00
144	yatırım	Noun	2087	6.00	177	düzen	Noun	1818	5.00
145	artış	Noun	2079	6.00	178	yargı	Noun	1812	5.00
146	sektör	Noun	2058	6.00	179	sabit	Adj	1786	5.00
147	şart	Noun	2045	6.00	180	giriş	Noun	1755	5.00
148	faktör	Noun	2028	6.00	181	genellikle	Adv	1743	5.00
149	olanak	Noun	2027	6.00	182	devre	Noun	1741	5.00
150	veri	Noun	2026	6.00	183	karşılama	Verb	1738	5.00
151	düzenleme	Noun	2023	6.00	184	artırmak	Verb	1736	5.00
152	ileri	Noun	2021	6.00	185	ölçü	Noun	1716	5.00
153	maliyet	Noun	2021	6.00	186	sağlık	Noun	1709	5.00
154	fark	Noun	2018	6.00	187	doğa	Noun	1703	5.00
155	katılmak	Verb	2018	6.00	188	kayıt	Noun	1699	5.00
156	birlik	Noun	2017	6.00	189	düşük	Adj	1688	5.00
157	sayılmak	Verb	2016	6.00	190	kişilik	Noun	1688	5.00
158	sürekli	Adv	2010	6.00	191	satış	Noun	1675	5.00
159	meşdan	Noun	1993	6.00	192	çözüm	Noun	1667	5.00
160	esas	Adj	1978	6.00	193	akım	Noun	1659	5.00

194	strateji	Noun	1658	5.00	227	işçi	Noun	1486	4.00
195	algılamak	Verb	1637	5.00	228	bağımsız	Adj	1484	4.00
196	ayrılmak	Verb	1626	5.00	229	kitle	Noun	1479	4.00
197	etkileşim	Noun	1624	5.00	230	aramak	Verb	1475	4.00
198	boyut	Noun	1617	5.00	231	tutulmak	Verb	1472	4.00
199	kar	Noun	1614	5.00	232	yardımcı	Noun	1472	4.00
200	problem	Noun	1597	5.00	233	katkı	Noun	1471	4.00
201	sınır	Noun	1597	5.00	234	seçim	Noun	1468	4.00
202	gerektirmek	Verb	1593	5.00	235	tamamlamak	Verb	1464	4.00
203	temsil	Noun	1587	4.00	236	ışık	Noun	1457	4.00
204	konum	Noun	1586	4.00	237	harcama	Noun	1454	4.00
205	emek	Noun	1585	4.00	238	ayrı	Adj	1449	4.00
206	firma	Noun	1576	4.00	239	sıralamak	Verb	1446	4.00
207	ilgi	Noun	1575	4.00	240	destek	Noun	1436	4.00
208	paylaşmak	Verb	1570	4.00	241	psikolojik	Adj	1436	4.00
209	yasal	Adj	1553	4.00	242	zorunlu	Adj	1435	4.00
210	gelişmek	Verb	1547	4.00	243	adlandırmak	Verb	1434	4.00
211	büyümek	Verb	1542	4.00	244	altın	Noun	1426	4.00
212	yaşanmak	Verb	1542	4.00	245	olumsuz	Adj	1413	4.00
213	hastalık	Noun	1540	4.00	246	yeterli	Adj	1412	4.00
214	anlaşılmak	Verb	1538	4.00	247	ticari	Adj	1410	4.00
215	hesaplamak	Verb	1534	4.00	248	bağ	Noun	1403	4.00
216	kriz	Noun	1528	4.00	249	gözlemek	Verb	1398	4.00
217	makine	Noun	1521	4.00	250	analiz	Noun	1397	4.00
218	çerçeve	Noun	1520	4.00	251	parça	Noun	1396	4.00
219	olgu	Noun	1515	4.00	252	tanım	Noun	1395	4.00
220	tip	Noun	1513	4.00	253	başarı	Noun	1393	4.00
221	uluslararası	Adj	1513	4.00	254	duygu	Noun	1392	4.00
222	dayalı	Adj	1511	4.00	255	kolay	Adj	1392	4.00
223	denetim	Noun	1509	4.00	256	itibar	Noun	1388	4.00
224	kaldırmak	Verb	1508	4.00	257	öncelik	Noun	1381	4.00
225	sürdürmek	Verb	1503	4.00	258	kültürel	Adj	1380	4.00
226	milli	Adj	1493	4.00	259	çıkarmak	Noun	1379	4.00

260	olumlu	Adj	1375	4.00	293	siyasal	Adj	1250	3.00
261	bakımından	Postp	1371	4.00	294	tartışma	Noun	1245	3.00
262	arttırmak	Verb	1367	4.00	295	taşınmak	Verb	1243	3.00
263	geniş	Adj	1364	4.00	296	tüketici	Noun	1240	3.00
264	edinmek	Verb	1360	4.00	297	itibaren	Postp	1237	3.00
265	hazırlanmak	Verb	1354	4.00	298	desteklemek	Verb	1222	3.00
266	etkin	Adj	1349	4.00	299	gider	Noun	1221	3.00
267	standart	Noun	1347	4.00	300	kılmak	Verb	1220	3.00
268	mevcut	Adj	1336	4.00	301	karşılaşmak	Verb	1215	3.00
269	ölçmek	Verb	1336	4.00	302	kaynaklanmak	Verb	1211	3.00
270	belge	Noun	1325	4.00	303	deneyim	Noun	1200	3.00
271	canlı	Noun	1321	4.00	304	kişisel	Adj	1200	3.00
272	yazılı	Adj	1320	4.00	305	ölüm	Noun	1198	3.00
273	uyarmak	Verb	1317	4.00	306	maddi	Adj	1188	3.00
274	fikir	Noun	1316	4.00	307	uyum	Noun	1188	3.00
275	yabancı	Noun	1316	4.00	308	sorumlu	Noun	1188	3.00
276	bağlanmak	Verb	1310	4.00	309	deyiş	Noun	1184	3.00
277	eş	Noun	1308	4.00	310	büyükklük	Noun	1176	3.00
278	tercih	Noun	1302	4.00	311	normal	Adj	1173	3.00
279	eşitlik	Adj	1299	4.00	312	sınırlı	Adj	1166	3.00
280	teori	Noun	1295	4.00	313	bağlam	Noun	1165	3.00
281	nüfus	Noun	1290	4.00	314	kalan	Adj	1160	3.00
282	azaltmak	Verb	1289	4.00	315	katılım	Noun	1150	3.00
283	geçerli	Adj	1283	4.00	316	modern	Adj	1150	3.00
284	bilimsel	Adj	1282	4.00	317	toplanmak	Verb	1147	3.00
285	yayın	Noun	1282	4.00	318	ortalamak	Verb	1145	3.00
286	alacak	Noun	1278	4.00	319	savunmak	Verb	1139	3.00
287	kurulu	Noun	1268	3.00	320	rekabet	Noun	1128	3.00
288	konmak	Verb	1260	3.00	321	çaba	Noun	1128	3.00
289	eşit	Adj	1258	3.00	322	resmi	Adj	1124	3.00
290	aracılık	Noun	1257	3.00	323	hükümet	Noun	1121	3.00
291	yetenek	Noun	1256	3.00	324	tepki	Noun	1119	3.00
292	kapsamak	Verb	1254	3.00	325	site	Noun	1117	3.00

326	göndermek	Verb	1116	3.00	359	bakış	Noun	1009	3.00
327	zorunda	Adj	1113	3.00	360	kötü	Adj	1009	3.00
328	cinsel	Adj	1111	3.00	361	eser	Noun	1007	3.00
329	hızlı	Adj	1110	3.00	362	istek	Noun	1003	3.00
330	geleneksel	Adj	1105	3.00	363	müşteri	Noun	1002	3.00
331	tüketim	Noun	1097	3.00	364	benimsemek	Verb	993	3.00
332	ters	Adj	1087	3.00	365	sayısal	Adj	992	3.00
333	doğrultu	Noun	1086	3.00	366	yetiştirmek	Verb	992	3.00
334	görünmek	Verb	1084	3.00	367	yıllık	Adj	988	3.00
335	aktarmak	Verb	1080	3.00	368	eklemek	Verb	985	3.00
336	bakım	Noun	1080	3.00	369	sınıflandırmak	Verb	982	3.00
337	ayrıntılı	Adj	1079	3.00	370	izin	Noun	977	3.00
338	yaygın	Adj	1077	3.00	371	aktif	Adj	967	3.00
339	başlangıç	Noun	1075	3.00	372	uzman	Noun	962	3.00
340	kazandırmak	Verb	1070	3.00	373	çatışmak	Verb	962	3.00
341	tekrar	Adv	1065	3.00	374	cumhuriyet	Noun	960	3.00
342	değişken	Adj	1058	3.00	375	takip	Noun	960	3.00
343	şiddet	Noun	1057	3.00	376	vade	Noun	960	3.00
344	tutar	Noun	1056	3.00	377	doğurmak	Verb	949	2.00
345	norm	Noun	1056	3.00	378	ayırarak	Verb	944	2.00
346	hakim	Adj	1053	3.00	379	hazırlamak	Verb	944	2.00
347	engellemek	Verb	1051	3.00	380	aşırı	Adj	939	2.00
348	basit	Adj	1048	3.00	381	kesin	Adj	936	2.00
349	günlük	Adj	1036	3.00	382	eşya	Noun	935	2.00
350	uymak	Verb	1035	3.00	383	yaklaşık	Adj	932	2.00
351	sanayi	Noun	1033	3.00	384	hedeflemek	Verb	931	2.00
352	alıcı	Noun	1028	3.00	385	beklenti	Noun	930	2.00
353	tamamen	Adv	1027	3.00	386	birleşmek	Verb	927	2.00
354	uzak	Adj	1024	3.00	387	dahil	Postp	926	2.00
355	hasta	Noun	1020	3.00	388	imkan	Noun	924	2.00
356	ulusal	Adj	1020	3.00	389	birden	Adv	923	2.00
357	topluluk	Noun	1019	3.00	390	malzeme	Noun	923	2.00
358	tutum	Noun	1014	3.00	391	güçlü	Adj	919	2.00

392	toplamak	Verb	919	2.00	425	kayıp	Adj	854	2.00
393	ek	Noun	915	2.00	426	düşünür	Noun	853	2.00
394	bakan	Noun	914	2.00	427	geçmiş	Noun	853	2.00
395	çağ	Noun	913	2.00	428	kent	Noun	845	2.00
396	kaydetmek	Verb	910	2.00	429	sözcük	Noun	845	2.00
397	açıklama	Noun	909	2.00	430	siyasi	Adj	845	2.00
398	öz	Noun	909	2.00	431	net	Adj	845	2.00
399	hat	Noun	908	2.00	432	dönüştürmek	Verb	843	2.00
400	özgü	Adj	906	2.00	433	değişik	Adj	842	2.00
401	kurumsal	Adj	899	2.00	434	kimlik	Noun	842	2.00
402	türlü	Adj	895	2.00	435	bağlantı	Noun	841	2.00
403	yönetmek	Verb	894	2.00	436	ağırlık	Noun	839	2.00
404	tarım	Noun	893	2.00	437	karşılaştırmak	Verb	834	2.00
405	ermek	Verb	887	2.00	438	merkezi	Adj	831	2.00
406	yük	Noun	887	2.00	439	öneri	Noun	830	2.00
407	işaret	Noun	887	2.00	440	mesaj	Noun	829	2.00
408	klasik	Adj	881	2.00	441	bölmek	Verb	826	2.00
409	tartışmak	Verb	881	2.00	442	kalkınma	Noun	825	2.00
410	proje	Noun	880	2.00	443	üstlenmek	Verb	814	2.00
411	davranmak	Verb	878	2.00	444	rapor	Noun	813	2.00
412	eğilim	Noun	878	2.00	445	önlem	Noun	810	2.00
413	inanmak	Verb	878	2.00	446	oluşum	Noun	809	2.00
414	yükselmek	Verb	875	2.00	447	tarz	Noun	807	2.00
415	anlaşma	Noun	874	2.00	448	bakanlık	Noun	805	2.00
416	başvurmak	Verb	872	2.00	449	sınırlamak	Verb	805	2.00
417	güven	Noun	871	2.00	450	tarafı	Adj	804	2.00
418	fırsat	Noun	870	2.00	451	başvuru	Noun	801	2.00
419	serbest	Adj	869	2.00	452	sık	Adv	800	2.00
420	bileşen	Noun	864	2.00	453	boyunca	Postp	799	2.00
421	zor	Adj	863	2.00	454	kaçınmak	Verb	798	2.00
422	çözmek	Verb	855	2.00	455	mekanizma	Noun	797	2.00
423	aralık	Noun	854	2.00	456	performans	Noun	794	2.00
424	doğum	Noun	854	2.00	457	başarılı	Adj	793	2.00

458	seviye	Noun	792	2.00	491	amaçlamak	Verb	735	2.00
459	yetersizlik	Noun	792	2.00	492	görevli	Noun	734	2.00
460	kısaca	Adv	790	2.00	493	uğramak	Verb	731	2.00
461	cinsiyet	Noun	789	2.00	494	vücut	Noun	730	2.00
462	yansıtmak	Verb	783	2.00	495	denetlemek	Verb	729	2.00
463	toplantı	Noun	780	2.00	496	takdir	Noun	729	2.00
464	vurgulamak	Verb	778	2.00	497	yarar	Noun	729	2.00
465	ilan	Noun	777	2.00	498	yerleştirmek	Verb	729	2.00
466	bütçe	Noun	776	2.00	499	bildirmek	Verb	728	2.00
467	kapasite	Noun	769	2.00	500	yarı	Adj	726	2.00
468	ilerlemek	Verb	768	2.00	501	gerekçe	Noun	725	2.00
469	sağlıklı	Adj	768	2.00	502	suret	Noun	724	2.00
470	güvence	Noun	766	2.00	503	gidermek	Verb	723	2.00
471	gelişmiş	Adj	764	2.00	504	geçiş	Noun	722	2.00
472	marka	Noun	762	2.00	505	aşmak	Verb	720	2.00
473	tespit	Noun	760	2.00	506	kalite	Noun	717	2.00
474	asıl	Adj	759	2.00	507	çıkış	Noun	716	2.00
475	statü	Noun	755	2.00	508	evlilik	Noun	715	2.00
476	erken	Adv	754	2.00	509	yönelmek	Verb	715	2.00
477	oynamak	Verb	754	2.00	510	seçenek	Noun	711	2.00
478	eleman	Noun	751	2.00	511	kaybetmek	Verb	709	2.00
479	sağ	Noun	749	2.00	512	çoğunluk	Noun	709	2.00
480	küresel	Adj	748	2.00	513	işbirliği	Noun	708	2.00
481	özet	Noun	745	2.00	514	çekilmek	Verb	705	2.00
482	tehdit	Noun	742	2.00	515	bedel	Noun	704	2.00
483	yazı	Noun	742	2.00	516	inceleme	Noun	699	2.00
484	müdahale	Noun	741	2.00	517	kan	Noun	697	2.00
485	çevresel	Adj	741	2.00	518	olasılık	Noun	695	2.00
486	temsilci	Noun	740	2.00	519	pozitif	Adj	694	2.00
487	yoğun	Adj	739	2.00	520	yürürlük	Noun	694	2.00
488	dal	Noun	738	2.00	521	etkileyen	Adj	693	2.00
489	devretmek	Verb	737	2.00	522	kesim	Noun	687	2.00
490	ölçüt	Noun	737	2.00	523	tehlike	Noun	687	2.00

524	bazen	Adv	683	2.00	557	kelime	Noun	633	1.00
525	adres	Noun	678	2.00	558	pazar	Noun	632	1.00
526	tarihsel	Adj	678	2.00	559	bozukluk	Noun	631	1.00
527	karşılıklı	Adj	677	2.00	560	dönüşmek	Verb	631	1.00
528	başlatmak	Verb	671	2.00	561	bulundurmak	Verb	630	1.00
529	çağdaş	Adj	671	2.00	562	vazgeçmek	Verb	628	1.00
530	cins	Noun	669	2.00	563	somut	Adj	626	1.00
531	daire	Noun	668	2.00	564	çeşit	Noun	625	1.00
532	değişme	Noun	667	2.00	565	idare	Noun	622	1.00
533	sürelî	Adj	667	2.00	566	kanal	Noun	622	1.00
534	yetkili	Noun	666	2.00	567	önermek	Verb	622	1.00
535	millet	Noun	665	2.00	568	ilişkili	Adj	620	1.00
536	baskı	Noun	663	2.00	569	mutlak	Adj	619	1.00
537	çift	Adj	662	2.00	570	duygusal	Adj	617	1.00
538	engel	Noun	661	2.00	571	ahlaki	Adj	616	1.00
539	husus	Noun	661	2.00	572	önlemek	Verb	616	1.00
540	yönlendirmek	Verb	659	2.00	573	çalıştırmak	Verb	615	1.00
541	açıkça	Adj	656	2.00	574	personel	Noun	610	1.00
542	girdi	Noun	654	2.00	575	karmaşık	Adj	609	1.00
543	kavramak	Verb	654	2.00	576	çevirmek	Verb	603	1.00
544	bina	Noun	650	2.00	577	ayrım	Noun	601	1.00
545	olanaklı	Adj	649	2.00	578	adet	Noun	599	1.00
546	yöneltmek	Verb	649	2.00	579	dışarı	Noun	597	1.00
547	kalkmak	Verb	647	2.00	580	kapatmak	Verb	594	1.00
548	disiplin	Noun	646	2.00	581	geçici	Adj	593	1.00
549	kapalı	Adj	646	2.00	582	zorunluluk	Noun	591	1.00
550	gözlem	Noun	644	2.00	583	öğe	Noun	590	1.00
551	katı	Adj	644	2.00	584	varsaymak	Verb	590	1.00
552	ciddi	Adj	641	2.00	585	yönlü	Adj	587	1.00
553	beraber	Adv	640	2.00	586	dolaylı	Adj	586	1.00
554	kolaylaştırmak	Verb	638	2.00	587	yalnız	Adj	586	1.00
555	evrensel	Adj	635	1.00	588	bozulmak	Verb	585	1.00
556	düşürmek	Verb	633	1.00	589	saptamak	Verb	585	1.00

590	işleyiş	Noun	584	1.00	623	ölçüm	Noun	541	1.00
591	görüşme	Noun	583	1.00	624	başlıca	Adj	537	1.00
592	kesmek	Verb	582	1.00	625	dinamik	Noun	537	1.00
593	cezalandırmak	Verb	579	1.00	626	akış	Noun	535	1.00
594	ilgilenmek	Verb	579	1.00	627	gümrük	Noun	532	1.00
595	kas	Noun	578	1.00	628	kolaylık	Noun	532	1.00
596	hata	Noun	574	1.00	629	nitelikli	Adj	532	1.00
597	beden	Noun	573	1.00	630	yarmak	Verb	532	1.00
598	ağır	Adj	572	1.00	631	düzenli	Adj	531	1.00
599	gösterge	Noun	572	1.00	632	araştırmak	Verb	528	1.00
600	özetlemek	Verb	572	1.00	633	sıklık	Noun	528	1.00
601	düzeltilmek	Verb	570	1.00	634	iletmek	Verb	527	1.00
602	yönetmelik	Noun	570	1.00	635	gereç	Noun	526	1.00
603	yorumlamak	Verb	569	1.00	636	konut	Noun	526	1.00
604	hissetmek	Verb	568	1.00	637	dolmak	Verb	525	1.00
605	basmak	Verb	567	1.00	638	ruh	Noun	521	1.00
606	dağılım	Noun	567	1.00	639	tedavi	Noun	520	1.00
607	tahmin	Noun	566	1.00	640	verimlilik	Noun	520	1.00
608	yayılmak	Verb	565	1.00	641	takım	Noun	519	1.00
609	örgütlenmek	Verb	561	1.00	642	adalet	Noun	513	1.00
610	basamak	Noun	560	1.00	643	belirleyici	Adj	513	1.00
611	ayırdatmak	Verb	559	1.00	644	kat	Noun	510	1.00
612	doğruluk	Noun	559	1.00	645	boy	Noun	509	1.00
613	bilinç	Noun	558	1.00	646	bitmek	Verb	509	1.00
614	terim	Noun	558	1.00	647	emir	Noun	509	1.00
615	negatif	Adj	555	1.00	648	güvenmek	Verb	509	1.00
616	gündem	Noun	554	1.00	649	yaklaşmak	Verb	509	1.00
617	yorum	Noun	549	1.00	650	durdurmak	Verb	508	1.00
618	potansiyel	Adj	548	1.00	651	vatandaş	Noun	507	1.00
619	istikrar	Noun	547	1.00	652	genelde	Adv	507	1.00
620	devrim	Noun	546	1.00	653	bağımsızlık	Noun	505	1.00
621	etmen	Noun	542	1.00	654	amaçlı	Adj	504	1.00
622	paralel	Adj	542	1.00	655	yükümlü	Adj	504	1.00

656	pratik	Adj	501	1.00	689	bağlamak	Verb	466	1.00
657	il	Noun	498	1.00	690	kategori	Noun	466	1.00
658	bileşik	Adj	497	1.00	691	reklam	Noun	465	1.00
659	endüstri	Noun	496	1.00	692	verimli	Adj	464	1.00
660	soyut	Adj	495	1.00	693	çeşitlilik	Noun	464	1.00
661	kapamak	Verb	494	1.00	694	kazanç	Noun	463	1.00
662	tedbir	Noun	494	1.00	695	teşvik	Noun	461	1.00
663	savunma	Noun	492	1.00	696	tasarlamak	Verb	460	1.00
664	hazır	Adj	492	1.00	697	bütünlük	Noun	458	1.00
665	dönüşüm	Noun	491	1.00	698	form	Noun	455	1.00
666	formül	Noun	491	1.00	699	anmak	Verb	454	1.00
667	etken	Adj	486	1.00	700	birtakım	Adj	454	1.00
668	ölmek	Verb	486	1.00	701	nitekim	Adv	454	1.00
669	danışman	Noun	484	1.00	702	henüz	Adv	451	1.00
670	kol	Noun	484	1.00	703	kağıt	Noun	448	1.00
671	unutmak	Verb	484	1.00	704	bahsetmek	Verb	446	1.00
672	görüşmek	Verb	483	1.00	705	harcamak	Verb	446	1.00
673	aday	Noun	482	1.00	706	yeteri	Adj	445	1.00
674	gecikmek	Verb	482	1.00	707	zorlamak	Verb	443	1.00
675	otorite	Noun	481	1.00	708	yapısal	Adj	441	1.00
676	kararlaştırmak	Verb	480	1.00	709	yükseltmek	Verb	441	1.00
677	mücadele	Noun	480	1.00	710	eleştirmek	Verb	440	1.00
678	yenilik	Noun	480	1.00	711	yapılandırmak	Verb	439	1.00
679	retetmek	Verb	478	1.00	712	anlamli	Adj	438	1.00
680	yazar	Noun	476	1.00	713	objektif	Adj	438	1.00
681	esnek	Adj	473	1.00	714	uyarlamak	Verb	438	1.00
682	çizmek	Verb	473	1.00	715	zayıf	Adj	438	1.00
683	ölçek	Noun	471	1.00	716	yerleşim	Noun	437	1.00
684	alışkanlık	Noun	470	1.00	717	çizgi	Noun	437	1.00
685	dağıtım	Noun	468	1.00	718	sürekli	Noun	432	1.00
686	eksik	Adj	468	1.00	719	odaklanmak	Verb	432	1.00
687	tasarım	Noun	468	1.00	720	tarihli	Adj	431	1.00
688	lider	Noun	467	1.00	721	organizasyon	Noun	430	1.00

722	evren	Noun	429	1.00	755	görünüm	Noun	394	1.00
723	bütünleşmek	Verb	428	1.00	756	tesis	Noun	394	1.00
724	birleştirmek	Verb	428	1.00	757	kart	Noun	393	1.00
725	pasif	Adj	428	1.00	758	sapmak	Verb	391	1.00
726	yetersiz	Adj	425	1.00	759	tane	Noun	390	1.00
727	saygı	Noun	424	1.00	760	yararlı	Adj	390	1.00
728	aylık	Adj	423	1.00	761	yoğunlaşmak	Verb	390	1.00
729	denemek	Verb	423	1.00	762	irdelemek	Verb	389	1.00
730	ihmal	Noun	422	1.00	763	değınmek	Verb	388	1.00
731	kurtulmak	Verb	422	1.00	764	karakter	Noun	388	1.00
732	yatmak	Verb	422	1.00	765	nitelendirmek	Verb	387	1.00
733	sınamak	Verb	421	1.00	766	izleyici	Noun	386	1.00
734	boş	Adj	419	1.00	767	dernek	Noun	385	1.00
735	yerel	Adj	418	1.00	768	sistematik	Adj	385	1.00
736	güçlük	Noun	417	1.00	769	taban	Noun	385	1.00
737	katmak	Verb	416	1.00	770	yollamak	Verb	385	1.00
738	hatırlamak	Verb	411	1.00	771	yoğunluk	Noun	383	1.00
739	sembol	Noun	411	1.00	772	değerli	Adj	382	1.00
740	bilgilendirmek	Verb	410	1.00	773	yüklemek	Verb	380	1.00
741	başarmak	Verb	409	1.00	774	önlenmek	Verb	379	1.00
742	üretici	Adj	409	1.00	775	erişim	Noun	378	1.00
743	eşitsizlik	Noun	407	1.00	776	sınırlandırmak	Verb	378	1.00
744	dağıtmak	Verb	406	1.00	777	zincir	Noun	378	1.00
745	kanıtlamak	Verb	406	1.00	778	çıkartmak	Verb	378	1.00
746	iz	Noun	404	1.00	779	alışveriş	Noun	377	1.00
747	tüketmek	Verb	402	1.00	780	yaptırım	Noun	377	1.00
748	indirmek	Verb	402	1.00	781	açıklık	Noun	376	1.00
749	elbette	Adv	401	1.00	782	rastlamak	Verb	376	1.00
750	gözlemlemek	Verb	400	1.00	783	girişim	Noun	375	1.00
751	etraf	Noun	398	1.00	784	iklim	Noun	374	1.00
752	eksiklik	Noun	397	1.00	785	saymak	Verb	371	1.00
753	şikayet	Noun	396	1.00	786	belirgin	Adj	370	1.00
754	kavramsal	Adj	395	1.00	787	nesil	Noun	370	1.00

788	yoksun	Adj	370	1.00	821	dar	Adj	336	1.00
789	kısmen	Adv	367	1.00	822	üstün	Adj	336	1.00
790	kuşak	Noun	367	1.00	823	insanlık	Noun	332	1.00
791	birikim	Noun	366	1.00	824	çözülmek	Verb	331	1.00
792	kapsamlı	Adj	366	1.00	825	inşa	Noun	330	1.00
793	dokunmak	Verb	365	1.00	826	götürmek	Verb	329	1.00
794	uyumlu	Adj	364	1.00	827	tabii	Adj	328	1.00
795	anlatım	Noun	363	1.00	828	yetmek	Verb	328	1.00
796	yürümek	Verb	363	1.00	829	faydalanmak	Verb	327	1.00
797	üstünlük	Noun	362	1.00	830	dizi	Noun	326	1.00
798	saklamak	Verb	362	1.00	831	ulaştırmak	Verb	324	1.00
799	yaygınlaşmak	Verb	362	1.00	832	mantık	Noun	322	1.00
800	işyeri	Noun	361	1.00	833	stratejik	Adj	322	1.00
801	yüklenmek	Verb	360	1.00	834	maruz	Adj	321	1.00
802	dini	Adj	359	1.00	835	zemin	Noun	321	1.00
803	genişlemek	Verb	358	1.00	836	zengin	Adj	321	1.00
804	farklılaşmak	Verb	355	1.00	837	ilgilendirmek	Verb	320	1.00
805	pozisyon	Noun	355	1.00	838	not	Noun	317	0.00
806	yayımlamak	Verb	354	1.00	839	liste	Noun	315	0.00
807	erişmek	Verb	353	1.00	840	dergi	Noun	314	0.00
808	hasar	Noun	353	1.00	841	genişletmek	Verb	313	0.00
809	toplu	Adj	353	1.00	842	belirsizlik	Noun	312	0.00
810	eleştiri	Noun	352	1.00	843	doldurmak	Verb	311	0.00
811	alışmak	Verb	349	1.00	844	kahçı	Adj	311	0.00
812	dönüş	Noun	348	1.00	845	yakalamak	Verb	311	0.00
813	katılımcı	Noun	348	1.00	846	sınav	Noun	311	0.00
814	temelli	Adj	345	1.00	847	yanmak	Verb	309	0.00
815	barındırmak	Verb	344	1.00	848	şehir	Noun	306	0.00
816	bildirim	Noun	342	1.00	849	yaymak	Verb	306	0.00
817	yavaş	Adj	342	1.00	850	arzu	Noun	303	0.00
818	güçlendirmek	Verb	341	1.00	851	yansımak	Verb	303	0.00
819	danışmanlık	Noun	338	1.00	852	ödül	Noun	303	0.00
820	yayınlanmak	Verb	338	1.00	853	hazırlık	Noun	302	0.00

854	derin	Adj	301	0.00	887	zamanlamak	Verb	277	0.00
855	yaratıcı	Adj	301	0.00	888	ağırlıklı	Adj	275	0.00
856	bağımlı	Adj	300	0.00	889	yaptırmak	Verb	275	0.00
857	sıkı	Adj	300	0.00	890	bilinçli	Noun	274	0.00
858	yenilenmek	Verb	300	0.00	891	paydaş	Noun	274	0.00
859	gündelik	Adj	299	0.00	892	hayal	Noun	273	0.00
860	kaza	Noun	298	0.00	893	koşmak	Verb	273	0.00
861	duyarlı	Adj	297	0.00	894	oynaklık	Noun	273	0.00
862	kalıp	Noun	297	0.00	895	yapım	Noun	273	0.00
863	benzemek	Verb	295	0.00	896	yaramak	Verb	273	0.00
864	dilimlemek	Verb	295	0.00	897	güvenli	Adj	272	0.00
865	ani	Adj	294	0.00	898	özgür	Adj	271	0.00
866	bağımlılık	Noun	294	0.00	899	kuşkusuz	Noun	270	0.00
867	işlevsel	Adj	292	0.00	900	tekrarlamak	Verb	269	0.00
868	onaylamak	Verb	289	0.00	901	iyileştirmek	Verb	269	0.00
869	kriter	Noun	288	0.00	902	kırmak	Verb	268	0.00
870	sıkıntı	Noun	288	0.00	903	gözetmek	Verb	265	0.00
871	yerleşmek	Verb	287	0.00	904	teşkil	Noun	264	0.00
872	gereklilik	Noun	285	0.00	905	mektup	Noun	263	0.00
873	kesinlik	Noun	285	0.00	906	özenmek	Verb	262	0.00
874	işleyen	Adj	283	0.00	907	masraf	Noun	262	0.00
875	benzerlik	Noun	282	0.00	908	tanıtmak	Verb	261	0.00
876	sivil	Adj	282	0.00	909	harf	Noun	260	0.00
877	lisans	Noun	282	0.00	910	konferans	Noun	260	0.00
878	kısıtlamak	Verb	281	0.00	911	sunu	Noun	260	0.00
879	sınıflamak	Verb	281	0.00	912	gönüllü	Adj	258	0.00
880	donanım	Noun	280	0.00	913	vasıta	Noun	257	0.00
881	adım	Noun	279	0.00	914	taklit	Noun	256	0.00
882	istismar	Noun	279	0.00	915	yaradan	Noun	256	0.00
883	gizli	Adj	278	0.00	916	zorlanmak	Verb	254	0.00
884	uzmanlık	Noun	278	0.00	917	zorluk	Noun	252	0.00
885	yitirmek	Verb	278	0.00	918	biçimsel	Adj	250	0.00
886	motivasyon	Noun	277	0.00	919	takmak	Verb	250	0.00

920	durulmak	Verb	249	0.00	953	yerleşik	Adj	222	0.00
921	soy	Adj	249	0.00	954	ziyaret	Noun	216	0.00
922	zararlı	Adj	248	0.00	955	terk	Noun	215	0.00
923	dayanak	Noun	247	0.00	956	çap	Noun	214	0.00
924	kaçmak	Verb	247	0.00	957	rahat	Adj	212	0.00
925	bağlılık	Noun	246	0.00	958	verici	Noun	212	0.00
926	coğrafi	Adj	246	0.00	959	karışmak	Verb	211	0.00
927	rakip	Noun	246	0.00	960	imkansız	Noun	209	0.00
928	ayrıntı	Noun	244	0.00	961	dayanışma	Noun	208	0.00
929	koruyucu	Adj	244	0.00	962	rutin	Adj	208	0.00
930	uğraşmak	Verb	242	0.00	963	ömür	Noun	208	0.00
931	şans	Noun	241	0.00	964	ihtimal	Noun	206	0.00
932	kurtarmak	Verb	239	0.00	965	güncel	Adj	205	0.00
933	uzaklaşmak	Verb	237	0.00	966	dengelemek	Verb	204	0.00
934	fabrika	Noun	235	0.00	967	karma	Adj	204	0.00
935	bozmak	Verb	232	0.00	968	katlanmak	Verb	203	0.00
936	düz	Adj	232	0.00	969	gereksiz	Noun	202	0.00
937	bünye	Noun	231	0.00	970	inmek	Verb	201	0.00
938	şema	Noun	231	0.00	971	fizyolojik	Adj	199	0.00
939	işletmek	Verb	231	0.00	972	organize	Adj	198	0.00
940	bağlantılı	Adj	229	0.00	973	dinlenmek	Verb	196	0.00
941	tipik	Adj	229	0.00	974	gözetim	Noun	196	0.00
942	uzlaşmak	Verb	229	0.00	975	hafif	Adj	196	0.00
943	imparatorluk	Noun	229	0.00	976	altyapı	Noun	195	0.00
944	aktarım	Noun	228	0.00	977	çoğaltmak	Verb	193	0.00
945	davranışsal	Adj	228	0.00	978	kıyas	Noun	192	0.00
946	görünüş	Noun	228	0.00	979	odaklı	Adj	190	0.00
947	yenilemek	Verb	228	0.00	980	karıştırmak	Verb	189	0.00
948	arayış	Noun	226	0.00	981	vurmak	Verb	186	0.00
949	öncelikli	Adj	226	0.00	982	duyarlılık	Noun	185	0.00
950	tıpkı	Adv	224	0.00	983	mikro	Adj	185	0.00
951	sonuçlanmak	Verb	224	0.00	984	gösteri	Noun	182	0.00
952	ulaşım	Noun	223	0.00	985	kastetmek	Verb	181	0.00

986	sakınca	Noun	178	0.00
987	sokmak	Verb	177	0.00
988	detaylı	Adj	175	0.00
989	uzatmak	Verb	174	0.00
990	kaçırmak	Verb	171	0.00
991	duyurmak	Verb	170	0.00
992	uzamak	Verb	169	0.00
993	hızlandırmak	Verb	168	0.00
994	muhtemel	Adj	166	0.00
995	donatmak	Verb	165	0.00
996	halen	Adv	160	0.00
997	kavuşmak	Verb	159	0.00
998	belediye	Noun	156	0.00
999	üstelik	Adv	156	0.00
1000	beğenmek	Verb	153	0.00
1001	patlamak	Verb	153	0.00
1002	belirsiz	Adj	152	0.00
1003	zamanlı	Adj	149	0.00
1004	denk	Adj	142	0.00
1005	endişe	Noun	139	0.00
1006	yıldırımak	Verb	134	0.00
1007	tecrübe	Noun	128	0.00
1008	kıyaslamak	Verb	126	0.00
1009	sarmak	Verb	115	0.00
1010	vakit	Noun	105	0.00

Appendix 13 The First 100 Words According to Part of Speech (The Academic Turkish Wordlist)

	Verbs	Nouns	Adjectives	Adverbs	Others
1	öğrenmek	davranış	toplumsal	dolayısıyla	ilişkin
2	belirlemek	işletme	çeşitli	sürekli	yönelik
3	oluşturmak	birey	gerekli	genellikle	açısından
4	geçirmek	gelişim	belirli	tekrar	ait
5	açıklamak	kavram	teknik	tamamen	bakımından
6	uygulamak	sözleşme	etkili	birden	itibaren
7	değerlendirmek	aşağı	finansal	sık	dahil
8	gerçekleştirmek	işlem	ortak	kısaca	boyunca
9	tanımlamak	yanıt	benzer	erken	
10	geliştirmek	kanun	doğal	bazen	
11	artmak	kurum	fiziksel	beraber	
12	kurulmak	uygulama	esas	genelde	
13	yapılanmak	varlık	doğrudan	nitekim	
14	ulaşmak	araç	bireysel	henüz	
15	korumak	suç	sabit	elbette	
16	gerçekleşmek	meslek	düşük	kısmen	
17	düzenlemek	iletişim	yasal	tıpkı	
18	taşımak	mal	uluslararası	halen	
19	tanımak	ilke	dayalı	üstelik	
20	yaratmak	kural	milli		
21	değişmek	ortam	bağımsız		
22	kazanmak	etkinlik	ayrı		
23	sunmak	hüküm	psikolojik		
24	üretmek	koşul	zorunlu		
25	içermek	politika	olumsuz		
26	ödemek	nitelik	yeterli		
27	etkilemek	sınıf	ticari		
28	incelemek	yöntem	kolay		
29	izlemek	öğretim	kültürel		
30	değiştirmek	faaliyet	olumlu		
31	sürmek	yaklaşım	geniş		
32	dayanmak	talep	etkin		
33	işlemek	ürün	mevcut		
34	azalmak	sermaye	yazılı		
35	doğmak	ekonomi	eşitlik		

36	seçmek	kuram	geçerli
37	yürütmek	araştırma	bilimsel
38	öngörmek	kültür	eşit
39	katılmak	görüş	siyasal
40	sayılmak	zarar	kişisel
41	yararlanmak	hesap	maddi
42	satmak	ihtiyaç	normal
43	planlamak	ceza	sınırlı
44	devralmak	model	kalan
45	karşılmak	hedef	modern
46	artırmak	gelişme	resmi
47	algılamak	teknoloji	zorunda
48	ayrılmak	toplam	cinsel
49	gerektirmek	sanat	hızlı
50	paylaşmak	miktar	geleneksel
51	gelişmek	yetki	ters
52	büyüme	fiyat	ayrıntılı
53	yaşanmak	kamu	yaygın
54	anlaşılmak	üye	değişken
55	hesaplamak	değişim	hakim
56	kaldırmak	kullanım	basit
57	sürdürmek	beceri	günlük
58	aramak	şirket	uzak
59	tutulmak	sorumluluk	ulusal
60	tamamlamak	risk	kötü
61	sıralamak	önem	sayısal
62	adlandırmak	denge	yıllık
63	gözlemek	hız	aktif
64	artırmak	karşılık	aşırı
65	edinmek	kontrol	kesin
66	hazırlanmak	kısım	yaklaşık
67	ölçmek	medya	güçlü
68	uyarmak	rol	özgü
69	bağlanmak	aşama	kurumsal
70	azaltmak	bilim	türlü
71	konmak	kuruluş	klasik
72	kapsamak	nesne	serbest
73	taşınmak	ticaret	zor

74	desteklemek	birim	kayıp
75	kılmak	pay	siyasi
76	karşılaşmak	felsefe	net
77	kaynaklanmak	örgüt	değişik
78	toplanmak	gereksinim	merkezi
79	ortalamak	değişiklik	tarafli
80	savunmak	unsur	başarılı
81	göndermek	içerik	sağlıklı
82	görünmek	işlev	gelişmiş
83	aktarmak	fonksiyon	asıl
84	kazandırmak	plan	küresel
85	engellemek	sebepl	çevresel
86	uymak	anlayış	yoğun
87	benimsemek	ücret	yarı
88	yetiştirmek	yardım	pozitif
89	eklemek	yasa	etkileyen
90	sınıflandırmak	yatırım	tarihsel
91	çatışmak	artış	karşılıklı
92	doğurmak	sektör	çağdaş
93	ayırarak	şart	sürelil
94	hazırlamak	faktör	çift
95	hedeflemek	olanak	açıkça
96	birleşmek	veri	olanaklı
97	toplamak	düzenleme	kapalı
98	kaydetmek	ileri	katı
99	yönetmek	maliyet	ciddi
100	ermek	fark	evrensel

Appendix 14 Multiple Comparisons of Coursebooks

COURSEBOOKS	COURSEBOOKS	Mean Difference	Std. Error	Sig.
Gazi Üniversitesi TÖMER Yabancılar İçin Türkçe Seti	İstanbul Üniversitesi Dil Merkezi İstanbul Seti	-.21207*	.02939	.000
	Ankara Üniversitesi TÖMER Yeni Hitit Yabancılar İçin Türkçe Öğretim Seti	.02851	.03767	.836
İstanbul Üniversitesi Dil Merkezi İstanbul Seti	Gazi Üniversitesi TÖMER Yabancılar İçin Türkçe Seti	.21207*	.02939	.000
	Ankara Üniversitesi TÖMER Yeni Hitit Yabancılar İçin Türkçe Öğretim Seti	.24058*	.04210	.000
Ankara Üniversitesi TÖMER Yeni Hitit Yabancılar İçin Türkçe Öğretim Seti	Gazi Üniversitesi TÖMER Yabancılar İçin Türkçe Seti	-.02851	.03767	.836
	İstanbul Üniversitesi Dil Merkezi İstanbul Seti	-.24058*	.04210	.000

*. The mean difference is significant at the 0.05 level.

Appendix 15 TrLister Technical Specifications

TrLister Technical Specifications

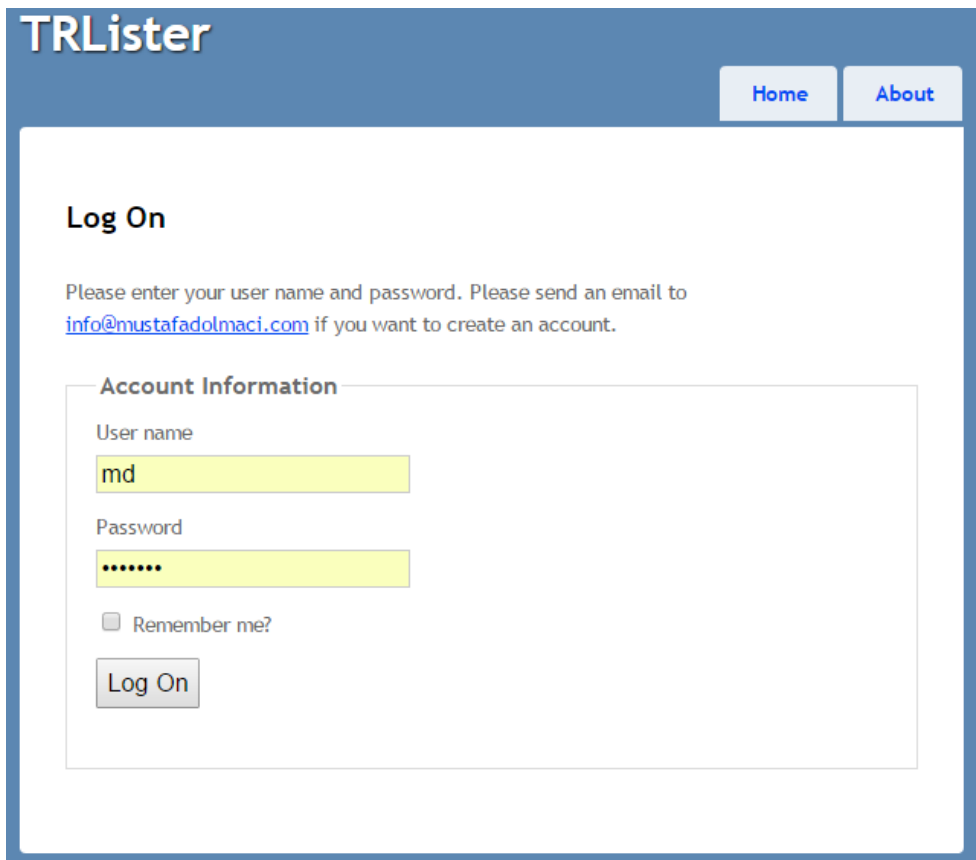
Introduction

TrLister is a web application hosted on <http://www.mustafadolmaci.com> web address that keeps list of Turkish words acquired from the Academic Corpus which includes 57textbooks and helps users to define lemmas.

The application could be analysed in three different parts.

Authentication

The application has built in authentication mechanism that allows only registered users to operate. Currently, there are 6 users defined in the system.



TRLister

[Home](#) [About](#)

Log On

Please enter your user name and password. Please send an email to info@mustafadolmaci.com if you want to create an account.

Account Information

User name
md

Password
.....

Remember me?

The user is able to set an authentication cookie on client, which remembers the user logged in for a parametric period of time (currently 7 days).

Adding new user could be achieved by executing SQL statements directly into database. There is no registration page for the sake of simplicity.

Users could visit a simple Home page and About page without logging in. All operations and reports related to words and bases require Users to authenticate.

Word List

This page lists all the words defined in the system and shows detailed information about them. There are 3 main operations users could do in this screen.

Fields

While listing words, detailed information is also displayed. The purpose of this information is to give users details about the words they are operating. The columns are:

- Word: Text of the word
- Root: Lemma of given words
- Total: Total number of occurrence in 5 categories
- Frequency: Number of categories the word appears
- Count1 to Count5: Number of occurrence of the word in each category respectively.

TRLister

Home Word List Report About

Word	X	Root	Total	Frequency	Count 1	Count 2	Count 3	Count 4	Count 5
<input type="checkbox"/> ŞİŞMESİNİ	✖	ŞİŞMEK	2	1	2	0	0	0	0
<input type="checkbox"/> ŞİŞMEYİ	✖	ŞİŞMEK	2	1	2	0	0	0	0
<input type="checkbox"/> ŞİŞMİŞ	✖	ŞİŞMEK	3	2	2	0	0	0	1
<input type="checkbox"/> ŞİŞTE	✖	ŞİŞ	2	1	2	0	0	0	0
<input type="checkbox"/> ŞİŞTEM	○	-	1	1	1	0	0	0	0
<input type="checkbox"/> ŞİŞTEMDEKİ	○	-	1	1	1	0	0	0	0
<input type="checkbox"/> ŞİŞTEMLE	○	-	1	1	1	0	0	0	0
<input type="checkbox"/> ŞİŞTEMLERİNDE	○	-	1	1	1	0	0	0	0
<input type="checkbox"/> ŞİŞTEMİ	○	-	1	1	1	0	0	0	0
<input type="checkbox"/> ŞİŞTEMİN	○	-	2	1	2	0	0	0	0
<input type="checkbox"/> ŞİŞTEMİNİ	○	-	2	1	2	0	0	0	0
<input type="checkbox"/> ŞİŞTİ	✖	ŞİŞMEK	1	1	0	0	0	1	0
<input type="checkbox"/> ŞİŞİRME	✖	ŞİŞİRMEK	1	1	0	0	1	0	0
<input type="checkbox"/> ŞİŞİRMESİ	✖	ŞİŞİRMEK	1	1	1	0	0	0	0
<input type="checkbox"/> ŞİŞİRİLMELİDİR	✖	ŞİŞİRMEK	1	1	1	0	0	0	0
<input type="checkbox"/> ŞİŞİRİLMİŞ	✖	ŞİŞİRMEK	2	2	1	0	1	0	0

Showing words between 172141 - 172159 of total 172156
Page 8608 of total 8608
<< | -8605 | -8606 | -8607 | -8608 | >>
Add selected words to root:

Assigning word to base (lemma)

After user select a set of words, s/he can assign them to a lemma by filling the text box with lemma and pressing “Add To Root” button. All selected words will be detached from their current base and will be assigned to new base(lemma) typed.

Users cannot assign deleted words to lemmas. Only unassigned or already-assigned words could be assigned to a lemma.

Disabling (or removing) words

Users are able to select a number of words and disable them from operation by pressing “x” button. All selected words will be detached from their current root and marked as disabled in the system. Disabled words will not be counted when generating reports.

Enabling words

Enable button marks words are enabled. The button appears next to disabled buttons only. The button allows users to undo disabling selected words.

Report

Users are able to generate reports based on the words and lemmas they previously specified. A number of filters are displayed on “Report Screen” and an excel file is generated when user presses Generate button.

Filters

13 different filters could be entered before generating the output.

TRLister

[Home](#)
[Word List](#)
[Report](#)
[About](#)

You are going to download an excel containing root words which comply following filter:

<p>Minimum Frequency: <input style="width: 100%;" type="text" value="1"/></p> <p>Maximum Frequency: <input style="width: 100%;" type="text" value="5"/></p> <p>Minimum Number of Sub Words: <input style="width: 100%;" type="text" value="1"/></p> <p>Minimum Total Appearance: <input style="width: 100%;" type="text" value="1"/></p> <p>Maximum Total Appearance: <input style="width: 100%;" type="text" value="2147483647"/></p> <p>Include Subwords: <input type="checkbox"/></p>	<p>Min - Max Appearances In Book 1: <input style="width: 50%;" type="text" value="0"/> - <input style="width: 50%;" type="text" value="2147483647"/></p> <p>Min - Max Appearances In Book 2: <input style="width: 50%;" type="text" value="0"/> - <input style="width: 50%;" type="text" value="2147483647"/></p> <p>Min - Max Appearances In Book 3: <input style="width: 50%;" type="text" value="0"/> - <input style="width: 50%;" type="text" value="2147483647"/></p> <p>Min - Max Appearances In Book 4: <input style="width: 50%;" type="text" value="0"/> - <input style="width: 50%;" type="text" value="2147483647"/></p> <p>Min - Max Appearances In Book 5: <input style="width: 50%;" type="text" value="0"/> - <input style="width: 50%;" type="text" value="2147483647"/></p> <p>Has To Appear In At Least: <input style="width: 50%;" type="text" value="1"/> books <input style="width: 50%;" type="text" value="0"/> times each</p>	<p>Exclude these words (one word per line):</p> <div style="border: 1px solid #ccc; height: 150px; margin: 5px 0;"></div> <p style="text-align: center; margin-top: 10px;"><input type="button" value="Generate"/></p>
--	---	--

The following filters are taken into account when generating the report:

- Minimum Frequency: Only lemmas that have at least given frequency will be included
- Maximum Frequency: Only lemmas less than or equal to given frequency will be included

- Minimum Number of Sub Words: Only lemmas that have at least given number of sub words will be included
- Minimum Total Appearance: Only lemmas that have at least given total appearance will be included
- Maximum Total Appearance: The lemmas that have more than given total appearance will be excluded
- Include Subwords: If checked, individual words attached to lemmas will be displayed in the report. If not checked, only lemmas will be generated.
- Min - Max Appearances in Book #1 - 5: Every lemma in the report should have at least given minimum appearance on each category respectively and should not exceed the maximum appearance given.
- Has To Appear In At Least X books Y times each: Only the lemmas that have at least Y appearance in at least X different categories will be included.
- Exclude these words: Given words will be excluded from the result.

When user presses Generate button, the filters above are executed on database and the output file is an excel document containing lemmas, words, frequencies, and percentages.

Excel Format

The output of report screen is named as Report_DATE_TIME.xlsx

Roots Tab

1	A	B	C	D	E	F	G	H	I	J	K
2	Id	Root	Frequency	Count 1	Count 2	Count 3	Count 4	Count 5	Total Appearance	# of Subwords	% Appearance
2	299	ALMAK	5	3286	3516	3118	3458	4092	17470	513	54,00
3	310	ALAN	5	2092	1314	3566	3061	1319	11352	64	35,00
4	398	ALT	5	986	643	910	611	1040	4190	21	13,00
5	422	AMAÇ	5	1006	1512	1588	3423	1996	9525	58	29,00
6	655	ARA	5	2436	2247	3260	1983	2629	12555	40	39,00
7	797	AŞAĞI	5	1599	879	1004	1135	1295	5912	34	18,00
8	1065	AYNI	5	1371	1139	1409	875	1172	5966	16	18,00
9	1127	AÇMAK	5	1118	1251	772	633	721	4495	265	14,00

of Subwords column shows the total number of words attached to each lemma.

% Appearance is total appearance of base divided by total appearance of all lemmas.

The rest of the columns are similar to the table in Words screen.

Words Tab

	A	B	C	D	E
1	Id	Root	Word	Total Appearance	% Appearance
2	2144	ALMAK	ALABİBLİRİZ		1 0,01 %
3	2146	ALMAK	ALABİLDİ		1 0,01 %
4	2147	ALMAK	ALABİLDİĞİ		4 0,02 %
5	2148	ALMAK	ALABİLDİĞİMİZ		1 0,01 %
6	2149	ALMAK	ALABİLDİĞİNCE		3 0,02 %
7	2150	ALMAK	ALABİLDİĞİNDEN		1 0,01 %
8	2151	ALMAK	ALABİLDİĞİNE		15 0,09 %
9	2152	ALMAK	ALABİLDİĞİNİ		2 0,01 %

% Appearance column is total appearance of each word divided by total appearance of the lemma it is attached.

Technology

The web application was developed using Microsoft ASP.NET MVC 3. Microsoft SQL Server 2012 was used as database engine and some open source libraries and frameworks were included in each level

Server Side

The following frameworks were included into project on server side:

- System.Web.Mvc Version 3: MVC framework allows developers to separate view from data and provides easy to develop and easy to maintain web interfaces.
- System.Web.Razor: Razor view engine is used instead of ASPX in order to simplify code.
- Entity Framework Version 5: The communication between server side MVC application and database is accomplished with Entity Framework. EF provides database server independent implementation and allows developers to easily switch between database engines
- NPOI: All excel related operations in report screen is developed using NPOI open source excel libraries.

Client Side

- jQuery: jQuery framework is a javascript library that enables developers to build user-friendly interfaces.
- MicrosoftMvcValidation: MVC Validation framework is used to validate user inputs on client side.
- All user interface is designed using responsive layout, meaning the application will work on all devices and all screen sizes