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DEPARTMENT OF FOREIGN LANGUAGES EDUCATION
MA IN FOREIGN LANGUAGES EDUCATION (ENGLISH)

MASTER'S THESIS

EXPLORING TURKISH EFL STUDENTS' LEXICAL AVAILABILITY ALONGSIDE THEIR RECEPTIVE AND PRODUCTIVE VOCABULARY KNOWLEDGE

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ÖZ

İNGİLİZCE ÖĞRENEN TÜRK ÖĞRENCİLERİN ULAŞILABİLİR KELİME DAĞARCIĞININ ALGISAL VE ÜRETİMSEL KELİME BİLGİSİ İLE İNCELENMESİ

Berat Emre Şahin

Haziran 2022

Bu çalışma, duygu dışı (Hayvanlar, Vücut Parçaları, Yiyecek ve İçecek, Okul) ve duygusal (Sevgi, Nefret, Mutlu, Üzgün) kategoriler olarak ayrılmış belirli anlamsal istemlerden oluşan bir ulaşılabilir kelime dağarcığı ortaya çıkarma aracı uygulayarak Türk üniversite öğrencilerinin kelime kullanılabilirlik düzeylerini incelemektir. Böylelikle İngilizce kelime araştırmalarına ve kelime kullanımına katkıda bulunmayı amaçlamaktadır. Ayrıca, derlemi temel alarak 1000-5000 kelime arasındaki tahmini büyüklükler hesaplanarak B1 seviyesindeki öğrencilerin algısal ve üretimsel kelime bilgilerinin keşfedilmesi hedeflenmektedir. Kelime kullanılabilirlik bölümünde, duygu dışı istemler için en çok kelime, Yiyecek ve İçecek istemi için verilmiş, bunu Okul, Hayvanlar ve Vücut Bölümleri izlemiştir. Duygu istemleri için en çok kelime Mutlu istemi aracılığıyla ortaya çıktmıştır. Bu kategoriyi Sevgi, Üzgün ve Nefret kategorileri takip etmiştir. Algısal kelime verileri için, katılımcıların 1000-5000 frekans aralığını belirlemek üzere Yeni Kelime Seviyeleri Testi kullanılmıştır. Öğrencilerin ortalama algısal kelime dağarcığı büyüklüğü, Avrupa Dilleri Ortak Çerveçe Programı'nın (CEFR) B1 seviyesinin ortalama algısal kelime dağarcığı sınırları içinde yer alan en sık kullanılan 5000 kelime içinde ortalama 2818 olarak bulunmuştur. Üretimsel kelime bilgisi, kompozisyonlarda kullanılan kelime türlerine bakılarak değerlendirilmiştir ve ortalama olarak %88,69'unun en sık kullanılan 1000 kelime aralığına ait olduğu ve bunu 2000 kelimede %6,96, 3000 kelimede %2,69, 4000 kelimelik bantta %0,50 ve son olarak 5000 kelimelik bantta %0,35 oranında takip ettiği gözlenmiştir.

Anahtar Kelimeler: Ulaşılabilir Kelime Dağarcığı, Algısal Kelime Bilgisi, Üretimsel Kelime Bilgisi, Derlem

ABSTRACT

EXPLORING TURKISH EFL STUDENTS' LEXICAL AVAILABILITY ALONGSIDE THEIR RECEPTIVE AND PRODUCTIVE VOCABULARY KNOWLEDGE

Berat Emre Şahin
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This study aims to contribute to EFL vocabulary research and vocabulary use by examining Turkish university students' lexical availability levels by applying a lexical availability elicitation tool consisting of certain semantic prompts divided into non-emotion (Animals, Body Parts, Food and Drink, School) and emotion (Love, Hate, Happy, Sad) categories. It also intends to explore B1 level students' receptive and productive vocabulary knowledge by calculating estimated sizes between 1000-5000 words based on the corpus. In the lexical availability part, most words for non-emotion prompts were generated for the prompt Food and Drink, followed by School, Animals, and Body Parts. For the emotion prompts, most words were elicited via the prompt Happy, followed by Love, Sad, and Hate. For the receptive vocabulary data, the New Vocabulary Levels Test was used to seek participants' 0-5000 frequency range. Students' average receptive vocabulary size was 2818 within 5000 most frequent words, which is within the boundaries of the average receptive vocabulary range of the B1 level of the Common European Framework (CEFR). Productive vocabulary knowledge was assessed with a writing task, which revealed that, on average, 88,69% of the word types used in the essays belonged to the 1000 most frequent word range, followed by 6,96% on 2000-word, 2,69% on 3000-word, 0,50% on 4000-word, and finally 0,35% on the 5000-word band. The findings of this study, looking into three different aspects of L2 vocabulary fundamentals, are thought to provide insights into L2 vocabulary learning, language proficiency, and mental lexicon.

Key Words: Lexical Availability, Receptive Vocabulary, Productive Vocabulary, Corpus

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ABBREVIATIONS

EFL: English as a Foreign Language

L2: Second Language

BNC: British National Corpus

COCA: Corpus of Contemporary American English

NVLT: New Vocabulary Levels Test

LVLT: Listening Vocabulary Levels Test

CEFR: Common European Framework of Reference

VLT: Vocabulary Levels Test

EVST: Eurocentres Vocabulary Size Test

LFP: Lexical Frequency Profile

UWL: University Word List

AWL: Academic Word List

1. INTRODUCTION

This introductory part includes the background knowledge concerning the importance of vocabulary learning and its use in EFL learners' language learning process. The aim is to enable readers and researchers gain insights into the essentials of vocabulary use and knowledge in language learning. Moreover, the stance of vocabulary use in daily life will be stressed by giving key examples from the studies that centers on the practical utilization of it. By emphasizing how important it is for language learners to have a certain vocabulary knowledge and to be lexically available for real life situations, language teachers will be able to acknowledge the importance of vocabulary learning and thus lead their students accordingly. Furthermore, future researchers may contribute to the mentioned facets of language learning. Subsequently, in consideration of the importance of vocabulary use, the purposes and the significance are stated. Finally, the research questions that have been formulated based on the purposes and the emphases will be given in this section and will be discussed in the following parts in detail. Basic conceptual definitions will also be introduced.

1.1. The Importance of Vocabulary Use

Vocabulary knowledge has been an intensively researched topic in the past decades since English has increased its status of being the primary global language. Being able to use appropriate words in different contexts and setting is essential in a language and requires a certain size of storage of vocabulary knowledge in the mental lexicon (Nation, 2001). Besides, understanding both verbal and written sentences in L2 brings the necessity of having an adequate word knowledge to process the meaning (Kaivanpanah et al., 2021). Having a prominent role in language learning, vocabulary knowledge stands as one of the central aspects of language to acquire (Ghazal, 2007). Languages consist of more words than one can encounter and utilize in a casual, every-day communication. (Hernandez-Muñoz et al., 2006). The simple term 'vocabulary' is always in our lives since it plays a major role in the interaction between people and also in language learning (Alavi & Akbarian, 2012). If language learners do not have

the knowledge of adequate and effective vocabulary, it is highly unlikely that they will be able to communicate with other people accurately, not to mention that learning vocabulary is crucial for speaking fluently. A conversation starts with a linguistic expression that commences with a word. The speaker is the one who has to come up with the correct words is the designer of it (Ferreira & Dell, 2000). The contribution of vocabulary knowledge to the interaction between people and language learning is more than other language features and components (Akbarian & Farrokhi, 2021). Therefore, it is important to be acquainted with what characteristics vocabulary holds and what EFL learners ought to be aware of (Ferreira et al., 2019; Moreno-Martinez et al., 2014). Likewise, language teachers and researchers need to look for what certain tasks and methodology are the most influential on L2 vocabulary development (Bao, 2015).

Research in the use of vocabulary in a second or a foreign language has substantially increased in recent years even though few studies have actually focused on lexical availability, receptive and productive vocabulary knowledge (Akbarian et al., 2020). The study by Dimitrijevic (1981) study on comparing monolingual and bilingual learners' lexical availability is one of the studies to be taken as a basis for the issue. The need for analyzing the concept of lexical availability occurred as a need of determining what words are available, yet also important to language learners to use in speech, during an every-day conversation and in writing. The degree of lexical availability is measured by looking at the correlation value between the number of occurrences of a single word in the lexical availability test and the number of participants. For example, if twenty learners participate in a lexical availability test, and all of them give the response 'water' for the semantic category of 'drinks', it means that the word 'water' has 100% availability for the test takers. The degree of lexical availability might alter depending on the sample of population. Namely, a native speaker and a foreign language learner most probably do not share the same results in terms of the availability degree of a specific word. In order to find out if there are any similarities or differences between monolinguals and bilinguals, Dimitrijevic (1981) compared them by applying lexical availability elicitation tool. Results showed that young monolingual learners generated more words than bilinguals, nevertheless the difference was not significant. On the other hand, older monolingual learners wrote down more words than bilinguals, and the difference was significant. Both

monolingual and bilingual older learners came up with more words than younger learners.

Vocabulary development and acquisition is an incremental progress that is gradually built by means of instruction, exposure, and materials (Nation, 2001; Zhong, 2018). It is natural not to include all the vocabulary items in a specific language teaching material since language learners are supposed to use a particular language in their daily lives. One of the methods that has been formed to select appropriate words is choosing them based on their frequency in the use of the language. Therefore, it is ideal to include appropriate words in the materials and sources that language learners are expected to use since vocabulary knowledge has a vital role in the learning process of second language and foreign language learners. (Akbarian & Farrokhi, 2021; Hernandez-Munoz et al., 2006). When learners are aware of what to expect in a particular proficiency level, or in a specific setting, they will be able to utilize the appropriate words more effectively, resulting in better interaction, writing, and speaking skills.

1.2. EFL Learners' Lexical Availability

English language, like many other languages, is subject to constant changes and updates due to being a dynamic asset of today's society. Since it is spoken all around the world, both for academic, educational and commercial purposes, it is even more likely to undergo alterations (Barbeiro, 2011). Therefore, it is necessary for language learners to keep up with the pace of the changes. One of the aspects of English language that is bound to change substantially is the vocabulary because it takes up new words due to new developments in technology. Furthermore, it leaks into various cultures, thus creating new vocabulary items. Consequently, many learners around the world are in need of acquiring the words they desire to utilize. The need to expand vocabulary knowledge in second and foreign language has been of significant importance for the learners and teachers of English (Ghazal, 2007). A significant relationship has been reported to exist between the amount of exposure to the target language and performing that language (Thordardottir, 2011). According to Kroll and Ma (2017) when EFL learners listen, speak, write, read, or even plan to do these, their lexicon including the required information of words for a specific context is activated. Lexical availability takes the role here since it accounts for the initial words that come

to mind concerning the topics that one usually encounters in daily life, such as when having a conversation with colleagues or classmates, ordering a food or drink in a restaurant, talking about school, grades or friends (Catalan & Fontecha, 2019). Lexical availability is related to productive skills, in that, it reveals the initial and foremost words that language learners receive from their working mental lexicon. Due to its close relationship with productive vocabulary knowledge, it is important to be aware of learners' lexical availability levels in different contexts, settings, age groups, and proficiency levels. (Catalan & Dewaele, 2017).

1.3. EFL Learners' Vocabulary Knowledge

Vocabulary knowledge has a key role on the achievement of language and literacy. Reading comprehension and academic success requires sufficient receptive vocabulary knowledge in a foreign language (Jackson et al., 2014). Vocabulary teaching as a means of comprehending reading passages was proved to be useful (Jenkins, 1983). Receptive vocabulary knowledge is one of the basic components of a language that enables reading comprehension both for monolinguals and EFL learners. It is also an instrument providing connection between written and oral language (Proctor et al., 2005). Additionally, adequate vocabulary knowledge has the potential to serve as a performance booster for EFL learners' listening comprehension skills (Droop & Verhoeven, 2003). Developing the size of vocabulary knowledge in English has been reported to be a crucial factor regarding comprehension and metalinguistic skills, which are key elements to achieve academic success (August & Shanahan, 2006).

Miralpeix and Muñoz (2018) stated that language learners whose exposure to the target language is at low levels will most probably recognize the most frequent and basic words and will most likely be unfamiliar with the less frequent ones. In consequence, receptive vocabulary size is considered to be an effective predictor of overall proficiency in L2 (Brysbaert et al., 2017). According to Staehr (2008), if EFL learners do not have the knowledge of the most frequent 2000-3000 words, they will experience difficulties when dealing with spoken and written text. It will even be harder for them to communicate actively and write in the expected way. However, if EFL learners know the most frequent 2000-3000 words, this will be a strong foundation for them to pursue their language learning with more confidence.

Being able to confidently produce words in L2 has gained a high level of significance in the past years (Zheng, 2012). Transmission of information holds great importance in any language in the world because without passing on words to others, it would be impossible to construct a healthy interaction. When someone begins to learn a new language, s/he undoubtedly and subconsciously utilizes the two productive components of it to express his/her thoughts, emotions and feelings: speaking and writing (Golkova & Hubackova, 2014). Building a productive vocabulary knowledge makes students engage directly in a continuous flow of creative work consisting of generating new ideas, thus enabling them to competently use vocabulary in different contexts (Chen et al., 2015). In order to improve learners' productive vocabulary knowledge, it is vital to combine vocabulary learning with communicative tasks and activities to have them get exposed to the target language explicitly (Zhou, 2010). Genç et al. (2016) implied that managing one's emotions and acknowledging others' emotions and being responsive to them can provide L2 learners with better productive skills, especially writing in the target language. Furthermore, when content and particular language components such as vocabulary are given and taught in an integrated way, learners are more likely to develop their productive vocabulary competence in the target language (Catalán & Llach, 2017). Learners who utilize their productive vocabulary knowledge at considerably high levels can become confident initiators of dialogues, have comfortable communications and interact with others in many contexts (Hart & Risley, 1978).

1.4. Significance of the Study

This study aims to show the significance of vocabulary use for EFL students' learning process by exploring and examining their lexical availability level, receptive and productive vocabulary knowledge.

To our knowledge, there is little to no research concerning Turkish EFL students' lexical availability. For the purpose of gaining insights about Turkish EFL students' immediate vocabulary use for various semantic categories, there is a need for a specific study to be able to estimate their lexical availability levels. Based on the BNC / COCA (British National Corpus / Corpus of Contemporary American English) corpus, it is also aimed to explore the frequency levels of the words given in the lexical availability test. Namely, all the immediate words that students have written in the lexical

availability test will be examined within the range of the most frequent 5000 words in English to find out 1000-5000 percentage distributions in eight semantic categories. In addition, thanks to providing conflicting concepts called emotion and non-emotion semantic prompts, it is hoped to learn how EFL learners' mental lexicon works in terms of imageability of the words they choose. In other words, it is desired to come up with outcomes that will explain the distinction between emotion and non-emotion words that Turkish EFL learners generate at first.

Vocabulary knowledge is one of the most critical aspects of language learning in Turkey. People who start to learn English often struggle with finding the correct words during a conversation or writing an essay or a paper. On the other hand, new language learners usually experience problems when trying to comprehend texts, newspapers, and books, which is caused by not having a certain level of word knowledge. These problems continue for a long time in the case of lack of practice. To be able to help those who have difficulties with vocabulary, it is essential to know learners' vocabulary size. It is highly recommended that receptive vocabulary knowledge and productive vocabulary knowledge should be treated as concepts that have a reciprocal relationship. To put it in a different way, a language learner cannot activate her productive vocabulary knowledge without the help receptive words because receptive words are the ones that are learned first. In return, the receptive knowledge is cemented by practical application which is based on using productive words. For these reasons, it is crucial to estimate the sizes of both receptive and productive vocabulary knowledge. By knowing a learner's size of vocabulary knowledge, language teachers may be able to relate it to the proficiency level. That way, teachers can instruct their students as to what type of vocabulary they should expect at their proficiency level, or what vocabulary items they should be familiar with. Considering the aforementioned circumstances commonly encountered in the learning progress of Turkish EFL students, this study targets to reveal their size of receptive and productive vocabulary knowledge. This study is expected to be a basis for the future researchers of language learning and teaching in their studies concerning EFL learners' vocabulary use and vocabulary knowledge in different contexts, age groups, and proficiency levels.

1.5. Purpose of the Study

The purpose of this research is to provide language researchers and EFL teachers with implications on EFL learners' vocabulary levels by exploring their lexical availability level, receptive vocabulary and productive vocabulary knowledge. In the light of these goals, the following research questions were generated:

1. Do the eight semantic prompts (Animals, Food and Drink, Body Parts, School, Love, Hate, Happy, Sad) elicit a similar or a different number of words?

2. Do non-emotion and emotion prompts elicit a similar or a different number of words?

3. What are the ten most frequent words generated by non-emotion and emotion prompts?

4. What are the frequency percentages of the eight semantic prompts based on 1000-5000 word bands of BNC/COCA?

5. What is the size of learners' receptive vocabulary measured with the New Vocabulary Levels Test?

6. What is the size of learners' productive vocabulary measured by using an essay writing task?

1.6. Conceptual Definitions

Lexical availability: The words that come to mind in respect to topics that are related to daily situations, for instance, when we need to talk about food and drink in a restaurant, or to have a conversation about subjects, teaching materials or classroom management at school. (Catalán & Fontecha, 2019; Richards & Schmidt, 2013).

Receptive Vocabulary Knowledge: Knowledge of words that one utilizes in order to understand a word while reading or listening. (Crow, 1986).

Productive Vocabulary Knowledge: Knowledge of words that one needs to know about in order to use it while speaking or writing. (Crow, 1986).

Corpus: A database of naturally occurring samples and items of a language that have been collected and compiled for easy access by language practitioners, researchers,

and material developers who wish to know how and where words and other linguistic items are used (Richards & Schmidt, 2013).

2. LITERATURE REVIEW

In this section, detailed literature regarding the background of lexical availability, receptive vocabulary knowledge, and productive vocabulary knowledge is included. The related literature will be examined thoroughly, covering the essentials of the three major topics. Various definitions of each main concept will be explained in order to provide language teachers and researchers with clear ideas as to how to conceptualize them. Readers will be able to acknowledge how and when these concepts have been used in language teaching and learning. Findings obtained from reputable sources and studies in the field concerning this thesis will also take place in the literature review section to have readers understand different aspects of lexical availability and vocabulary knowledge of language learners. In addition, different types of instruments measuring the level of lexical availability and the size of both receptive and productive vocabulary knowledge will be discussed. Analyses regarding the abovesaid topics will be examined and assessed.

2.1. Lexical Availability

Words that are used more frequently are more likely to be regarded as suitable vocabulary items to have learners learn mostly in the initial phases of foreign language learning (Groot, 2000). Lexical availability, according to Hernández-Muñoz et al. (2006), measures how easy and quick a language learner generates a word within a particular semantic category. A word is regarded as available if it immediately occurs in a speaker's mind when there is a certain topic in a conversation (Alvarez-Gil & Melián Mejías, 2019). According to Richards and Schmidt (2013), availability is the extent to which people are immediately able to utter or write down the words belonging to a particular topic of interest. For instance, *teacher, student,* and *book* are among the most common words when finding words for 'School'. The concept of lexical availability has occurred as a basis for selecting appropriate vocabulary for foreign language learners (Dimitrijevic, 1969).

Hernandez (2014) sought to explain the relationship between lexical availability and learners' language proficiency in Spanish language in a mixed method study. To compare different proficiency levels, basic level (A1-B1) and advanced level (B2-C1) university students were selected. Sixteen different semantic categories were used to elicit words: 'body', 'clothes', 'house', 'furniture', 'food', 'table', 'kitchen', 'school', 'lighting', 'city', 'countryside', 'transports', 'garden', 'animals', 'games', 'professions'. The results revealed that advanced level participants outperformed the basic level participants in terms of word token and word type production. On the contrary, the two groups showed similar results in terms of cohesion index, which is a common outcome for many lexical availability studies. Cohesion index is calculated by dividing the words' average by the number of different units. Its purpose is to find out which domains include the greatest coincidence among the items given by the participants.

Studies concerning the cognitive aspects of lexical availability have caused some attention in the past twenty years (Ferreira & Echeverría, 2010). Such studies assumed that exploring EFL learners' lexical availability not only explains the type, size and the frequency of the vocabulary utilized; but also serves with insights on their mental processes when using the language (Muñoz et al., 2014). What makes this claim a strong one is the fact that the lexical availability task has also been used in the field of psycholinguistics whose research interest is to examine semantic memories of specific people, such as those who suffer a brain injury (Caramazza, 1998). Besides, the lexical availability task is preferred by applied linguistic practitioners to assess the recalling performance of second language learners (Grabowski, 2017).

The study conducted by Ferreira et al. (2019) focused on possible predictors of lexical availability in English L2 with native speakers of Spanish. These were age of acquisition, familiarity, imageability, and frequency. Two semantic categories were presented to assess these aspects: Body Parts, and Food and Drink. The results showed that age of acquisition, familiarity, and frequency were predictors of lexical availability, yet imageability was moderately associated with it. The effect of age of acquisition could possibly stem from the semantic system in which early acquired words are more available than the ones acquired later. The effect of familiarity was slightly significant, meaning that most available words are not always the most familiar ones. Frequency was a significant predictor for Food and Drink, but the effect

of age of acquisition was bigger in Body Parts compared to frequency. The reason why imageability was not a predictor of both categories is that learners' available vocabulary does not depend on the fact that if a word is concrete or abstract.

Schwanenflugel and Akin (1994) suggested that elementary school children were more inclined towards concrete words than abstract words. Young learners' lexical decisions were predicted by imagery ratings, yet it was context availability ratings for adults' lexical decisions. Additionally, it was claimed that the higher the context availability got, the better the lexical decision performance got (Taylor et al., 2022). This was also indicated by Kosslyn (1981) earlier, who stated that young children activate their imagery representations, whereas adolescents and adults have the capability of retrieving words by relying on their abstract verbal representations in the lexicon. The representation of memory is subject to change gradually, in other words, the domination of imagery code fades in time and leaves its place to a more dominant verbal-based code. The main reason of this alternation is due to the fact that as a human ages, the availability of general propositional knowledge increases.

Even though the number of studies concerning the relationship between lexical availability and language learning aspects are not many, this issue is slowly becoming popular among language experts and researchers of the field. One study depicting the relationship between lexical availability and writing ability of English language learners highlighted a positive correlation between the scores of lexical availability test and writing for both genders (Akbarian & Farrokhi, 2020). Therefore, it was pointed out that with the help of further studies, lexical availability could become a useful pedagogical source of teaching and instructing writing skills for EFL learners. It has a strong potential to be used as a source to determine what learners' lexicon hold and how they use it in specific situations (Alvarez-Gil & Melián Mejías, 2019). To strengthen this point, Elman (2004) expressed word knowledge is mainly located in the mental lexicon, yet the words here act as stimuli that work directly on certain mental states. Thus, different semantic properties of a specific word can be observed depending on the effects it causes to those states.

The relationship between lexical availability and L2 motivational self-system was examined and found to be correlated in some semantic categories in terms of certain aspects (Sandu & Oxbrow, 2020, 2021). Out of four lexical prompts – 'body parts', 'food and drinks', 'health and medicine', and 'social issues'-, three of them – 'body

parts', 'food and drinks', and 'social issues'- were correlated with *Ideal L2 self*, whereas none of the four categories were correlated with *Ought-to L2 self*. Ideal L2 self is the aspect that renders students imagine themselves quite sufficient at speaking and utilizing English language, driving them to enhance the quality of the desired future self-image of a language learner. On the other hand, Ought-to L2 self refers to the outcomes language learners expect to meet for the sake of avoiding negative outcomes. Consequently, it was concluded that Ought-to L2 self does not influence students' level of lexical availability. Furthermore, *L2 Learning Experience* was found to be a strong predictor of lexical availability (Brady, 2019). L2 learning experience includes the influence of teachers, methods, and instructions in a particular language learning context, which is also related with other classmates' effect on the learner (Sandu & Oxbrow, 2021).

EFL learners come across many different types of vocabulary throughout their learning process. One of the most debated issues concerning vocabulary development is the use of emotion and concrete (non-emotion) words. In order to understand how EFL learners use these kinds of words, we have to gain insights about the mental lexicon of the learners (Catalán & Dewaele, 2017). Studying EFL learners' lexical availability may help language researchers to explain the process of abstract and concrete words in the lexicon. Based on the practice of tasks utilizing association via certain semantic prompts such as Food and Drink, Schools and on the other side; Love and Sad, it is possible to elicit words from learners' mental lexicon, which in turn, may provide a better understanding of what words are frequently and initially used when speakers happen to have a conversation or express their feelings in certain situations. When ranked in descending order in terms of frequency, these immediate words are the most available ones in language learners' minds (Morales, 2014).

While the literature in terms of comparing emotion and concrete words is not substantial, the area of psycholinguistics has been studying both concepts in recent decades. In a psycholinguistic study conducted by Altarriba and Bauer (2004), the concepts of emotion, abstract and concrete words were discussed. According to the study, learners can recall emotion words better than concrete words. Contradicting with this study, based on his dual coding theory, Paivio (1990) noted that the human mind recalls concrete words better than abstract words, which is called as concreteness effect that seems to affect speakers' lexical decisions. Furthermore, it is important to

note that both young people and adults are under the influence of this effect. In short, young learners have more difficulties with abstract words in terms of making lexical decisions. However, older children or adults can make better lexicon decisions depending on their availability based on background knowledge when it comes to using abstract words.

Akbarian et al. (2020) examined the aspects of frequency and exposure of EFL learners' lexical availability in two state universities in Iran. Ten semantic prompts were used in the lexical availability test to generate words: 'parts of the body', 'food and drink', 'clothes', 'parts of the house', 'school', 'countryside', 'the city', 'means of transportation', 'animals', and 'colors'. Descriptive statistics showed that the learners wrote down most words for the category 'parts of the body', followed by 'animals', 'school', 'parts of the house', 'clothes', 'food and drink', 'the city', 'colors', 'means of transportation', and finally 'countryside'. The mean score for 'parts of the body' was 13,76 while for the 'countryside' it remained at 7,00. Furthermore, in this study, the relationship between the lexical availability output performance and the number of hours of English language instruction was another focus. The first group was called the incoming group which had a total of 360 hours of English instruction, meanwhile the second group called the outgoing group had 700 hours of English instruction plus 560 hours of various courses of different subjects in which English is the teaching language, making it a total of 1260 hours. In all the ten semantic prompts, outgoing group outperformed the incoming group. The greatest mean difference between the two groups was seen in 'parts of the body', whereas the smallest difference was observed in the prompt 'means of transportation'. This research also looked at the top five words in each category whether they were similar in both groups or not. In total, top 50 words given as responses by both groups were compared. There were more identical top words than different ones. Out of 100 top words from both groups, 66 of them were shared responses and 34 were exclusive. The reason 'parts of the body', 'animals', and 'school' elicited the highest number of words can be explained with the substantial amount of exposure to such universal concepts (Martinez-Adrian & Gallardo del Puerto, 2017). Moreover, another explanation may be that such semantic cues consist of the most common words that are taught to new learners of a foreign language. On the other hand, cultural vocabulary of EFL textbooks might be related the fact that 'countryside' had the lowest output, in that, this particular semantic

category may vary depending on countries, cultures, regions, and languages (Alonso & Porte, 2016). In the light of above-mentioned results concerning the relationship between exposure and lexical availability, it can be concluded that the more hours of English instruction learners get, the better their vocabulary production becomes although the difference may vary for various semantic categories.

One possible weak aspect of the conventional lexical availability test tool in which students are supposed to write down as many words as possible for a semantic category in a given limited time is the fact that the test is a written one (Dimitrijevic, 1981). It is more probable that if an oral lexical availability test is used for elicitation, more words would be generated by oral utterance since writing a word takes considerably more time than producing it orally. In the sentence level, the difference is even bigger. Recording participants' oral responses to semantic categories could be another approach to collect more data for lexical availability. There may be a chance to observe the differences and similarities between written lexical availability and oral lexical availability.

2.2. Receptive Vocabulary Knowledge

Vocabulary knowledge can be defined as the extent to which language learners are familiar with a word (Nation, 2001). Vocabulary knowledge is also considered as the depth of certain vocabulary that L2 learners are able to comprehend (Milton, 2009). Nation (1990) argues that vocabulary knowledge contains the information of vocabulary items in speech and writing, involving linguistics aspects such as meaning, syntax, compatibility, concept and frequency of use, and collocation. It was also implied that vocabulary knowledge is greatly related with major language aspects: writing, speaking, listening, reading, and grammar (Akbarian, 2010; Kaivanpanah et al., 2021). Vocabulary size has been said to have a positive impact on globally accepted English language proficiency and placement exams such as TOEFL. It was stressed that students who perform well on vocabulary tasks are also good at TOEFL test items (Alavi & Akbarian, 2012). Receptive vocabulary knowledge on the other hand, is assessed by size tests based on different frequency levels. The frequency levels represent the range from the most to the least common words in a language (Miralpeix & Muñoz, 2018).

Receptive vocabulary knowledge is regarded as passive, and recognitional vocabulary which people utilize to comprehend readings or texts and understand what other people say in a foreign language (Teichroew, 1982). Receptive vocabulary knowledge concerns the words that are available for L2 learners to know and recognize to understand texts, but not utilized to write or speak (Maskor & Baharudin, 2016). In order to estimate L2 learners' vocabulary size, the number of total words that are already known by them have been calculated in some studies in recent years. To give an example, Basanta (2005) calculated the vocabulary size of final year students who were advanced level L2 learners of English in a university. Their native language was Spanish. The estimated vocabulary size of them was calculated as 5500 words, corresponding to C1 level of the CEFR. Another study by Cobb and Horst (1999) explored students in a university in Hong Kong with a B2 level of English and their receptive vocabulary was found out to be between 4300 and 4500 words. Molina (2005) conducted a study on first year university students whose major was English Philology and Translation studies and whose native language was Spanish. The receptive vocabulary size of the students was 3174 words, which corresponds to B1-B2 level of English. Waring (1997) examined the receptive vocabulary knowledge of undergraduate Japanese L2 learners, and the average size was 1707 words, which falls into the range of A2 level of English. Quinn (1968) on the other hand, studied newcomers in an Indonesian university and revealed the receptive vocabulary size as 1000 words whose range belongs into the range of A1 level of English. A study conducted with undergraduate students whose major was TESOL in Malaysia showed surprising results in terms of receptive vocabulary knowledge (Jamian et al., 2008). According to the findings, these learners' average receptive vocabulary knowledge was 80% at 2000 word frequency band, 66% at 3000 word frequency band, 44% at 5000 word frequency band, and 33% at 10000 word frequency band. Considering the fact that these were future teachers of English language, these performances were considerably poor (Jamian et al., 2008).

Some studies focused on the relationship between receptive vocabulary knowledge and overall L2 proficiency and language skills. For example, Zareva et al. (2005) found out that as general L2 proficiency increased, the quality of L2 vocabulary competence improved with it. Therefore, it was concluded that high level of receptive vocabulary size was one of the strongest indicators of high level L2 proficiency and language

skills. It is not easy to determine a certain value of vocabulary size, not to mention that for reading it is even harder (Miralpeix & Muñoz, 2018). Nonetheless, there is a common agreement that language researchers have come to, implying that for a satisfying reading experience, knowledge of the most common 5000 words is a necessity (Hirsh & Nation, 1992). Besides, Nation (2006) expressed that in order to be able to read and understand novels and newspapers, an L2 learner must have the knowledge of the most frequent 8000-9000 words, and 6000-7000 words for spoken texts, which corresponds to 98% coverage. Laufer (1992b) suggested that the most frequent 3000-4000 words are adequate for general academic reading, yet 5000 words is the milestone where the language learner will satisfactorily read most kinds of texts, regardless of general academic ability. In a study conducted by Laufer (1992a), the receptive vocabulary knowledge scores measured with the Vocabulary Levels Test and Eurocentres Vocabulary Size Test were found to be highly correlated with reading scores of the participants. Moreover, a study carried out by Henriksen et al. (2004) in Denmark with high school and university students identified a strong relationship between the size of vocabulary knowledge and reading comprehension scores. In addition, the learners who had low scores on the vocabulary knowledge test also performed significantly worse than those who had high scores on the vocabulary knowledge test. The drawn-up conclusion in this study implied the fact that in order to be confident when reading texts, a certain level of linguistic knowledge in the target language is a must. Listening comprehension was also found to be related with vocabulary size. Staehr (2009) discovered strong correlations between listening comprehension test scores and vocabulary size test scores. Bundgaard-Nielsen et al. (2011) observed that in an L2 listening perception test, the students with larger vocabulary sizes performed considerably better than the students with smaller vocabulary sizes. The findings above emphasize the importance of having a high level of receptive vocabulary knowledge for comfortable and competitive reading ability and accurate listening perception. If high level proficiency in reading and listening is the ultimate goal, achieving and cementing a certain level of vocabulary is essential (Crow, 1986).

When learning English, a young learner might start with almost zero words. A foreign student in an English-speaking country may only know a limited number of words in English (Jackson et al., 2014). Depending on the context, the language learners have

to deal with certain vocabulary (Zhong, 2011). Learning and solidifying an adequate and desired number of words in a foreign language has always been and will be a major obstacle and a milestone for every language learner. Likewise, it is one of the biggest concerns in the standpoint of foreign language teachers and instructors (Crow, 1986). One the most important requirements to achieve high levels of receptive vocabulary knowledge is the appropriate orientation of students. Receptive vocabulary knowledge is better learned if it is contextualized in readings or tasks. Here, language teachers take the lead and guide the learners. From the point of view of an English language teacher, understanding how the vocabulary knowledge and its contribution to learners' affect their processing and producing the language is vital (Webb, 2008). Thus, it is important to determine the vocabulary size of EFL learners to help them manage their needs in the tasks and interactions they will be having, in other words, rendering them become a bilingual person (Goulden et al., 1990).

Vocabulary size, regardless of being receptive or productive is often defined as cumulative and incremental in certain ways (Schmitt, 2000). After a word has been introduced to the mental lexicon, language learners gradually acquire its different aspects in time (Schmitt et al., 2001). In addition, the size of vocabulary knowledge of EFL learners relies on their general L2 proficiency level as well as the amount of exposure to the target language. Acknowledging a learner's vocabulary size would give language teachers a notion of what sort of EFL tasks that learner can deal with confidently. Depending on the extent of the vocabulary size, appropriate tasks and objectives can be provided to maintain the learning process in a dynamic way in which the learner would not have difficulties with respect to the vocabulary items involved in those tasks and objectives (Gallego & Llach, 2009). Kaivanpanah et al. (2021) expressed that even though implicit vocabulary instruction had noticeable effects on vocabulary learning, explicit vocabulary instruction showed greater results in retention for longer periods. Smith (2004) found out that when words in a target language was explicitly practiced, they were more effectively recalled from the receptive vocabulary repertoire. Kirmizi and Kömeç (2019) implied that thanks to adequate content both outside and inside the classroom, students get exposed to more input of the target language, thus improve their receptive vocabulary knowledge in an enhanced fashion.

Receptive vocabulary knowledge scores might seem easy to assess language learners' level, process and individual needs, yet the scores of vocabulary tests may demonstrate

complex results or outcomes. The reason the scores become complicated depends on several variable factors such as student characteristics, learning contexts, and teaching methods (Edelenbos & Vinje, 2000). Administering vocabulary tests in a classroom environment involves trade—off between the reliability and validity of the test and the resources that are subject to construct, conduct and assess it (Mochida & Harrigton, 2006). Hence, it is essential to interpret them in a clear and structured way from the perspective of language teachers and researchers of language use (Fitzpatrick & Clenton, 2017). Vocabulary Levels Test (VLT) suggested by Nation (1990) has been proved to be useful for language teachers to determine what action they should take according to the needs of language learners (Laufer & Nation, 1999). In the Vocabulary Levels Test, students have to match three of six words with the given meanings. The VLT categorizes words in four sections according to their frequency levels ranging from highest frequency to the lowest. The highest frequency range is 2000 word level, followed by 3000 word level, 5000 word level, and lastly 10000 word level which is the lowest frequency range. Another vocabulary test used to determine receptive vocabulary size is Eurocentres Vocabulary Size Test (EVST) formulated by Meara and Jones (1988). This test uses cross out and yes/no items to measure receptive vocabulary size. However, the EVST may not be applicable for all the contexts since it was originally functioned as a placement indicator for a large number of new students trying to qualify for the Eurocentres schools in the UK. Another drawback of the test was the fact that it was taking a very long time to conduct and then mark. In other words, it does not seem to be practical time wise. On the other hand, although it has been used commonly in vocabulary studies, the VLT has limitations. It was claimed that VLT has become an outdated vocabulary test (Webb, 2021). The most frequent 2000 word level was created via using West's (1953) General Service List. Moreover, 3000, 5000, and 10000 word frequency levels were structured based on the frequency criteria of Thorndike and Lorge (1944) and Kueera and Francis (1967). Language is bound to change in time due to its dynamic nature. As new generations replace the older ones, and new developments in technology take place, an update is necessary for the corpus. Other than being an outdated one, the test also has issues about its format. Lack of item independence occurs due to the fact that the test provides six answer choices, to be matched with three target word definitions. Because of its outdated form and its somewhat vulnerable format, McLean and Kramer (2015) created an alternative receptive vocabulary assessment test which is called New

Vocabulary Levels Test (NVLT). In this study, to assess learners' size of receptive vocabulary knowledge, the NVLT was used to find out up-to-date outcomes. The NVLT is a test that utilizes a multiple-choice format in which students have to find out the correct answer out of four options. The NVLT measures the most frequent 5000 word of learners to determine their receptive vocabulary knowledge.

2.3. Productive Vocabulary Knowledge

Productive vocabulary knowledge is defined as the words that can be used by language learners orally or in written form. In the past decades, production of words in a foreign language has gained a position of significant importance (Zheng, 2012). Productive vocabulary is regarded as the active vocabulary knowledge since language learners can activate their mental lexicon and utter words to express their opinions, emotions, and feelings to be understood by other people (Webb, 2005). Knowledge of productive vocabulary brings the ability to formulate meaningful phrases by using pertinent words in order to pass the information to another person using the target language (Laufer, 1995). For a substantial number of EFL learners, learning and using new vocabulary items is essential. Therefore, they dedicate themselves to vocabulary learning and spend considerable amount of time on it and also try to practice it whenever they can in order to be able to utilize it for whatever context they would like to incline towards (Zheng, 2009). In a longitudinal study, Bleses et al. (2016) expressed that early development of productive vocabulary could predict a considerable level of academic achievement in the future. Therefore, it is essential to get young learners exposed to the language and have them practice it frequently to develop a substantially large productive vocabulary knowledge size, which provides them an opportunity for academic achievement in the upcoming years. It should be kept in mind that, since exposure to language is positively correlated with better academic achievement throughout the learning progress in the future, even small-sized exercises, practice, and tasks are likely to be affecting learners' development in a solidified way.

Studies have found that developing productive vocabulary is more challenging than developing receptive vocabulary in L2 (Bell, 2009; Churchill, 2008). Developing productive vocabulary knowledge stands as a specifically important issue in countries where exposure to the target language is poor, namely, acquisition is not at an ideal rate. In such countries or regions such as China, learning English is generally

correlated with better economic and educational opportunities (Zheng, 2009, 2012). Not only the ones without those opportunities, but also the educated English learners experience difficulties using the language fully functionally after they complete their official education due to the fact that they cannot find appropriate contexts to utilize English language, which in turn may influence communicative competence negatively (Hu, 2003).

Assessing productive vocabulary knowledge stands as an important aspect in language teaching as to what to expect from language learners in their speech and writing (Golkova & Hubackova, 2014). Therefore, measuring the size of productive vocabulary knowledge becomes necessary to know to what degree learners can perform when generating and using words (Meara & Alcoy, 2010). It is almost impossible to make an exact calculation of how many words that one can produce freely, which corresponds to the size of productive vocabulary knowledge (O'Dell et al., 2000). There are tools that have been designed to measure the size of productive vocabulary knowledge. One of them is the Lexical Frequency Profile (LFP) proposed by Laufer and Nation (1995). The LFP was found to be correlated with an independent measure of productive vocabulary size. The LFP categorizes learners' output based on frequency. This test was designed as a measure of vocabulary use in which participants were supposed to write two essays consisting of 300-350 words in successive class periods. For the first essay, a specific topic was given to the students, and for the second essay they were given three topics from which they were required to choose one and write an essay about it. There were several criteria according to which the compositions were assessed. If a word was a blatantly incorrect one, it was not added into the analysis. Minor misspellings were corrected. Incorrect derivates were corrected and added as examples from their word family, and proper nouns were not included in the analysis. Participants' *Lexical Frequency Profile* were created as followed: the first 300 words of each essay categorized in four frequency bands: 1000 most frequent words, 2000 most frequent words, University Word List (UWL) or also called Academic Word List (AWL) by Coxhead (2000), and the ones not belonged to these lists. The basic assumption of the LFP is that if the text includes a large number of infrequent words, it means the text is difficult one to understand. One criticism that can be brought upon the LFP test is that it is limited to the first two 1000-word frequency level and the University Word List. While the tests measuring the size of

receptive vocabulary knowledge goes beyond the range of 2000 word, it may not be ideal to limit a productive vocabulary test at such level. For instance, if a future researcher seeks to compare the results of a receptive vocabulary test that observes the first 5000-word or 10000-word frequency levels to the LFP, the words that do not belong to the first 2000-word range may remain incomparable. Naturally, the LFP puts those words into the 'not in the lists' category, yet such unlisted items are not specified as to which frequency level they are within.

Another form of a vocabulary size test was Productive Vocabulary Levels Test which was a completion test in which learners have to fill in the blanks in sentences with appropriate words (Laufer & Nation, 1999). Laufer and Nation (1999) structured the test on the basis of Nation's (1983; 1990) Vocabulary Levels Test. The test consisted of five different word frequency levels: 2000 band, 3000 band, 5000 band, 10000 band, and University Word List (UWL). Each band included 18 items which were sentences with specific blanks to fill in. The measurement criterion is as followed: for instance, in order for participants to be regarded as proficient at 2000 word level, they must have 85% or 90% (which corresponds to 15 or 16 correct answers) success rate out of 18 items, implying that less than 150 words do not yet belong to that level and are not available as productive vocabulary knowledge in learners' lexicon. A study conducted among four grades of EFL learners (10^{th} grade, 11^{th} grade, 12^{th} grade, and University students) via utilizing the Productive Vocabulary Levels Test revealed a correlation and consistency between the grade level and productive vocabulary knowledge. Out of 90 total items, 10^{th} grade students' average score was 21.7, followed by 33.4 for 11^{th} grade students, 40.1 for 12^{th} grade students, and finally 55.8 for university students. University students' average in 2000 frequency band was 17.0, followed by 14.9 in 3000 band, 12.6 in UWL band, 7.4 in 5000 band, and 3.8 in 10000 band. At 10000-word frequency level, university students scored significantly different than other grades. In fact, 10^{th} and 11^{th} grade participants' 10000 band score was zero, and 12^{th} grades' 10000 band score was only 0.9 on average. This means that high school students' productive vocabulary knowledge was limited to 5000 frequency level and below. This test was also called a test for controlled productive ability. Since it can be administered and completed in a short period of time, and also easily marked, it is considerably practical to apply in various contexts. The Productive Vocabulary Levels Test was proved to be a valid, reliable, and a practical instrument for vocabulary

development. One weakness for this type of test might be that it may be perceived as a quasi-productive test because it does not require participants to write down a full word. Instead, for the unknown word that learners are supposed to find, the test provides initial letters; varying from one letter to four letters. This means that participants are given a clue of the word they are required to produce. In a sense, it engages participants to activate their receptive vocabulary knowledge since when they see the initial letters, they will presumably try to scan their mental lexicon for words beginning with those particular letters. Therefore, it can be indicated that the test lacks the trait of being completely productive. For the purpose of observing learners' pure productive knowledge, the items can be modified and be transformed into full blanks so that learners shall write down a word suitable to the sentence. This in turn, may result in discovering different findings with regards to the size of productive vocabulary knowledge.

Another test to measure productive vocabulary size is Lex30, built by Meara and Fitzpatrick (2000). The Lex30 test utilizes a word association format. Learners are presented a list of 30 stimulus words in L2 and they are asked to write down the first four words they think of when they read each word located in the list. In this sense, the Lex30 is related to the lexical availability test where learners have to write down words for a given prompt (Akbarian et al., 2020). Differently, only four words are required in the Lex30. The responses, which may be a maximum value of 120 per participant are categorized based on their frequency. If a word is in the first 1000 most frequent words, it is marked as *frequent*. If it is not in the 1000 most frequent words, it is marked as *infrequent*. In the end, final score can be either defined as the total number of *frequent* ones out of a maximum of 120 words, or as the percentage of them. One advantage of the Lex30 test is that it elicits lexically dense words. Since it is basically a word association tool, function words are almost nonexistent. Participants generate a high number of content words (Fitzpatrick & Meara, 2004). After several studies, it was concluded that the Lex30 had potential to be a quick productive vocabulary knowledge test that could be used along with other vocabulary tests (Meara & Fitzpatrick, 2000). One criticism brought to the Lex30 test was that the test had not been successful to draw meaningful conclusions in terms of reliability and validity (Baba, 2002). Besides, its format resembles a lexical availability test where students are free to write down any words related to specific categories in an allotted time

period. It is not ideal to assume that productive vocabulary knowledge and lexical availability are identical. Therefore, composition writing stands as a stronger predictor of free writing, providing a broader range for productive vocabulary.

Some researchers suggested certain ways for developing productive vocabulary. Wei (1999) proposed that teaching collocations would have a positive effect on improving learners' productive vocabulary knowledge. In addition to having the knowledge of meanings of the words, it is also important to know which words are required to be combined to create a new use. That way, learners can expand their vocabulary use, and eventually, their size of their productive vocabulary. Bishop (2000) suggested the use of dictionaries as a means of developing productive vocabulary knowledge. By looking up synonyms for certain words, learners will have the opportunity to enrich their vocabulary variety by being introduced to related items. Moreover, refining nouns to come up with more specific meanings depending on the context might be an efficient way to develop the knowledge of productive vocabulary. This way, language learners can not only use the most common, frequent words, but also the infrequent ones, which in turn builds a rich productive vocabulary store to be used in different context when needed. For the verbal productive vocabulary development, Bobojonova (2020) suggested effective techniques such as drama, storytelling, and question and answer. When instructed properly by the teacher, these techniques were found to be useful for developing the size of productive vocabulary, also the confidence of learners for the future spoken contexts. Language learners who are provided with sufficient content in the classroom, outside the classroom which may include multimedia resources, tasks to do at home, or written materials can effectively boost their developmental process of building a productive vocabulary knowledge (Kırmızı & Kömeç, 2019).

A study carried out by Mokhtar (2008) in a university setting with 360 students in Malaysia sought to determine learners' productive vocabulary size and development throughout a long time period. The findings showed that the value of average productive vocabulary size was 2154 words. In addition, their yearly productive vocabulary knowledge growth was measured and found 459 words per year. A study conducted in a Korean high school with 402 intermediate-plus level 11th grade students measured the size of learners' productive vocabulary by asking them 100 questions consisting of 10 questions for each frequency band (Shin et al., 2011). Namely, they

wanted to calculate the first ten 1000-word frequency bands. The results elicited via the VLT showed that the productive vocabulary size was 24,40 out of a total of 100 words. In addition, the mean for 1000-word band was 8.04, for 2000-word band was 4.67, for 3000-word band was 3.27, for 4000-word band was 2.29, and for the 5000-word band was 1.63.

3. METHODOLOGY

This section includes information about participants and their background, the context the study took place, the instruments used in the study, the data collection process which concerns the schedule of the application of the tools, and the analyses utilized to measure and interpret learners' lexical availability, receptive and productive knowledge. The lexical availability elicitation tool, the New Vocabulary Levels Test (NVLT) and an essay writing task were the instruments conducted to collect the required data for the research. The structures of the abovesaid instruments will be elaborately discussed below. Furthermore, data analysis tools and formulas used for interpretation of three main topics will be explained as to why and how they have been used for this thesis.

3.1. Participants, Setting, and Context

The data from the three instruments -the lexical availability measurement, the NVLT, and the essay writing task - were collected from 180 learners whose first language is Turkish and who are learning English as a foreign language. The participants were aged 18-19 years. All the participants were first-year state university students who had successfully passed a preparatory class of English Language education the previous year. These students learn English for 5 years for the purpose of being able to confidently use it in their disciplines and professions, following their graduation. They choose their major at the beginning of the second year of the university among different engineering departments in order to be trained to become engineers of various fields, such as computer engineering, mechanical engineering, etc. At the time of the research, the participants' level of English was B1 based on the Common European Framework of Reference (CEFR). In addition, according to the regulations of the university in which the research was carried out, the students who have successfully completed the requirements of the preparatory class have achieved B1 level of English. Students had received 800-850 hours of EFL instruction in the preparatory year.

During the first year of university, the students take eight hours of English class in the first semester, and six hours of English class in the second semester; an aggregate of 200 hours of EFL instruction. A B1+ level course book published by a reputable source is used throughout both semesters after the preparatory year. Four skills -reading, writing, listening, and speaking- are actively taught and applied along with a considerable amount of practice. The data for this study were collected from first-year university students in a state university in Istanbul, Turkey. Required permission and ethical approval were taken from the administration of the university to conduct the research officially.

3.2. Instruments

In this study, three different instruments were used to collect the data for lexical availability, receptive vocabulary and productive vocabulary knowledge. To collect lexical availability data, a lexical availability elicitation tool (Akbarian et al., 2020; Hernandez-Muñoz et al., 2006) was created and used. New Vocabulary Levels Test (NVLT) developed by Mclean and Kramer (2015) was the instrument utilized to collect data regarding learners' receptive vocabulary knowledge data. Finally, to measure the participants' knowledge of productive vocabulary, they were instructed to write an essay about a topic formulated beforehand, similar to what Laufer and Nation (1995) conducted to find out the LFP. Differently, in this thesis, only a single essay was utilized to assess the first five 1000-word frequency bands based on BNC / COCA. Participants were required to write an essay between 200 and 300 words. Unlike LFP, in which the words taken from the essays were categorized in 1000-word band, 2000-word band, the AWL, and the unlisted sections, this study aimed to classify essay words in the first five 1000-word frequency bands, ranging from 1000 to 5000 to make more explicit categorization. In this study, Lex30 was not utilized as a productive knowledge test due to the fact that it does not represent a free writing test. Instead, it is a shorter and a narrower version of a lexical availability test. Likewise, the VLT did not seem to reflect pure productive skills because it gives away clues for the required answers. Essay writing was selected as the best option for measuring free writing capacities.

3.2.1. Lexical Availability Elicitation Tool

For all three data collection process, quantitative data methods were used in the study. To measure the lexical availability level, the students were given eight semantic categories (Akbarian et al., 2020; Hernandez-Munoz et al., 2006). The categories are *Animals*, *Body Parts*, *Food and Drink*, *School*, *Love*, *Hate*, *Happy*, and *Sad*. Four non-emotion and four emotion categories were chosen to examine whether B1 level university students generate more words for either non-emotion or emotion semantic categories. The participants of the research were presented aforementioned categories one by one respectively and asked to write down as many words for each category as possible in an assigned time period. For each category, the students were given two minutes. In the previous studies of lexical availability, the allotted time was mostly two minutes for similar groups. Therefore, giving the participants two minutes was considered ideal. Each category was distributed to students in a form of small-sized papers (See Appendix 1). To note, the participants were not limited with twenty four words as seen in Appendix 1. They were informed that if they were to fill up all the twenty four blanks, they could continue writing the words on the other side of the sheet. Once a category was completed, the papers were collected, and the papers of the next category were distributed. This process continued in the same manner until the last paper was taken from the participants. After the application of the test, the data were entered into VocabProfilers at www.lextutor.ca (Cobb, n.d.). This website was used for categorizing words into their belonged frequency levels. It categorizes the words according to their frequency levels on the basis of Brown National Corpus / Corpus of Contemporary American English (BNC/COCA).

3.2.2. Receptive Vocabulary Test

In order to determine the participants' receptive vocabulary knowledge, the New Vocabulary Levels Test was used (McLean & Kramer, 2015). The NVLT was formulated as a written receptive test, paralleled with its verbal receptive form, the Listening Vocabulary Levels Test (LVLT). The NVLT is aimed to measure learners' receptive vocabulary size of the most frequent 5000 words families on the basis of Nation's (2012) British National Corpus / Corpus of Contemporary American English (BNC/COCA) word list. The NVLT was selected because of its potential of being a diagnostic instrument that can determine achievements. The test is a multiple-choice

test where students have to find one correct option for each question, thus it is convenient for distinguishing students with different proficiency levels (Laufer & Aviad-Levitzky, 2017). The NVLT uses the word family unit since it utilized units in the building of the test based on BNC/COCA.

The test consists of five parts indicating the first five 1000-word frequency levels in English. To state it clearly, part 1 stands for the most frequent 1000 words, part 2 stands for the most frequent 2000-word range based on BNC/COCA and so on. Each part presents 24 multiple choice items in which the participants have to choose the best possible answer for a word written bold among four options (See Appendix 2). The participants were given 80 minutes to complete the test consisting of 120 questions in total. The participants were instructed not to answer the questions they have no idea about to eliminate the risk of guessing which may affect the true results of the research. To find out the participants' estimated vocabulary size, the number of total correct answers was multiplied by the band level (5000, in this case) and then divided by the total number of items in the test. For example, given that a test taker had a total score of 40 out of 5 parts (5000 most frequent words), the score of 40 was multiplied with 5000 and then divided by 120, which equals to receptive vocabulary size of 1666 words. Furthermore, the mean frequency for each category was calculated to gain an insight about B1 level learners' receptive vocabulary knowledge. The NVLT also includes the AWL consisting of 30 questions, yet the AWL part was excluded in this study because the aim was to measure learners' receptive vocabulary size on the first 5000-word families, not the academic word knowledge of B1 level learners.

3.2.3. Productive Vocabulary Tool

For the productive vocabulary data, the participants were asked to write a 200-300 words opinion essay in the form of pen-and-paper. The topic of the essay was 'Money cannot buy happiness; do you agree or disagree?'. The reason to choose an opinion essay for this study was to offer students more freedom in their writings. Namely, expressing a large range of opinions may trigger a vast pool of various words from 1000-word frequency to 5000-word frequency. The topic for the opinion essay was determined as such since the students could express their personal experiences, give related examples, and write down imaginary things thanks to its unrestrictive nature. Throughout the first year of university, the students are given essay writing

assignments, thus they are familiar with essay writing and how to construct its structure. It is important to note that the students with whom the research was conducted had been assigned a considerable number of writing tasks and assessments in the preparatory class the previous year. In addition, the participants were taught the basics of how to write an opinion essay before the essay writing task was administered. Students were given eighty minutes to finish writing the essays. Students wrote their essays on class time. The participants were informed that the essay might consist of four or five paragraphs in total, with properly designed introduction, body and conclusion parts. For the purpose of measuring students' true productive vocabulary knowledge in L2, they were not allowed to use dictionaries or ask for the meaning of words they do not know.

3.3. Data Collection Process

The data analyzed in this study were collected in December 2021. The data in this study was collected with instruments that were administered and applied in official class time. It took three consecutive weeks to collect all the data. The data collection process started with conducting the lexical availability test which took place on 17 December 2021. After exactly one week, the second set of data was collected via the NVLT, receptive vocabulary test, on 24 December 2021. The last data collection process involved learners' productive vocabulary knowledge. Students were instructed to write an essay on a specific topic, on 31 December 2021. All three data collection instruments were administered and applied during class hours. Lexical availability test took forty minutes to complete. Eighty minutes were allotted for both receptive vocabulary test and essay writing. Required permission was taken from the university administration.

3.4. Data Analysis and Interpretation

Different data analysis tools were utilized in order to measure and analyze descriptive and quantitative data. In the following section, data analysis methods for each set of data will be described.

3.4.1. Lexical Availability Data Analysis

For the analysis of lexical availability data, quantitative analysis methods were used. Microsoft Excel was the main analysis tool since it has a wide variety of calculations, formulas, and tables, which is adequate to calculate and interpret most of the data. Additionally, minor spelling mistakes were corrected since the purpose was to find out learners' lexical knowledge, not the accuracy.

In order to calculate the most frequent words of the semantic groups, AntConc, conducted by Anthony (2022) was utilized. AntConc is a freeware analysis tool for corpus and text analysis. To use AntConc and calculate the ten most frequent words in each semantic category, firstly, all of the words collected in the lexical availability test were written down on a text file on a computer. Then, these words were registered into the application of AntConc. AntConc provided the information of how many times each word was written down by the learners. Finally, ten most frequent words in each category were listed.

Additionally, VocabProfilers>Compleat Web VP at www.lextutor.ca by Cobb (n.d.) was utilized to investigate learners' responses to lexical availability prompts as to which frequency band they are located in based on the corpus of BNC/COCA. All the words collected via the eight given semantic prompts were registered into this website to discover the distribution of words across different frequency groups. This website is utilized for examining learners' vocabulary profiles and knowledge.

3.4.2. Receptive Vocabulary Knowledge Data Analysis

The New Vocabulary Levels Test consisted of five parts. Each part included twenty four questions, equaling to 120 questions in total. Each question was worth one point. The maximum score the participants could get was 120. The participants were instructed to answer the questions they could and not to answer the ones they did not have an idea about. After the participants completed the test, firstly their tests were manually scored. Then, the results were registered into Microsoft Excel. Microsoft Excel was utilized to calculate learners' mean, mode, median, minimum, maximum, and standard deviation scores of first five 1000-word frequency bands, ranging from 1000 to 5000.

To calculate the estimated receptive vocabulary size of the participants within the most frequent 5000 words, a specifically designed formula was utilized (Kavanoz & Varol, 2019):

*ERVS = (TNOCA) * (TVOFB) / (TNOQ)*

ERVS: Estimated Receptive Vocabulary Size

TNOCA: Total number of correct answers

TVOFB: Total value of frequency bands

TNOQ: Total number of questions

Participants' mean, minimum, maximum, and standard deviation scores of the estimated receptive vocabulary size were registered into Microsoft Excel and calculated. Finally, a table was created on Microsoft Excel to show the scores explicitly.

3.4.3. Productive Vocabulary Knowledge Data Analysis

In order to examine the productive vocabulary size of the participants, an opinion essay format was utilized. Before the data instrument was applied, the participants were instructed as to how to write an opinion essay. Therefore, they were familiar with the format of writing an essay.

The participants wrote the essays that were to be collected for the thesis study in their classrooms in the form of pen-and-paper. After the essays were collected, each participant's words were manually registered into separate Microsoft Word documents. Then, each participant's words were entered into the VocabProfilers>Compleat Web VP part on the website www.lextutor.ca by Cobb (n.d.) to determine the percentage of distribution of words within the first five 1000-word frequency bands based on BNC/COCA. Spelling mistakes were corrected and added into the corpus database in their true forms.

Microsoft Excel was used to calculate the mean, mode, median, and standard deviation percentage values to gain insights about the participants' productive vocabulary knowledge. Finally, a table was created on Microsoft Excel to show the percentages explicitly.

4. FINDINGS

This chapter provides detailed information about the findings obtained as a result of data analysis. Eight different tables have been constructed to demonstrate the findings of the lexical availability test, the NVLT was used for measuring learners' receptive vocabulary knowledge, and the essay writing task was administered to examine learners' productive vocabulary knowledge.

In the first section, the descriptive analysis of the lexical availability data will be demonstrated consisting of mean, mode, median, min, max, standard deviation, and total values of the semantic categories.

The second section will show the descriptive data regarding the results of receptive vocabulary knowledge of the learners. The findings measured with the NVLT will be given alongside the formulas and calculations used.

Finally, in the third section, the descriptive data analysis for the productive vocabulary knowledge will be shown with a table formulated on the basis of assessing learners' compositions.

4.1. Lexical Availability Data Analysis

For the first research question measuring the number of the words generated in each category, the mean scores of eight semantic categories in the lexical availability test were calculated (Table 1). Spelling mistakes were corrected and added into the data. Plural forms were modified as singular and included in the data. If a participant had written the singular and the plural form of the same word, the plural form had been disregarded and had been excluded from the data.

Table 1: Number of Words Participants Generated in the Lexical Availability Test

	Animals	Body Parts	Food and Drink	School	Love	Hate	Happy	Sad
MEAN	**14**	**13,6**	**16,34**	**15,72**	**11,42**	**7,74**	**12,55**	**8,2**
MODE	**15**	**13**	**15**	**16**	**9**	**4**	**10**	**7**
MEDIAN	**14**	**13**	**16**	**16**	**11**	**7**	**12**	**7,5**
MIN	**3**	**3**	**3**	**3**	**0**	**0**	**0**	**0**
MAX	**25**	**24**	**31**	**30**	**26**	**21**	**27**	**21**
SD	**4,35**	**3,87**	**4,65**	**4,83**	**5,25**	**4,27**	**5,5**	**4,09**

The participants generated the most tokens on 'Food and Drink' category followed by 'School', 'Animals', 'Body Parts', 'Happy', 'Love', 'Sad', 'Hate' for which the least tokens were elicited. The prompt the participants performed best among the non-emotion categories was 'Food and Drink' with a mean score of 16,34. On the other hand, it was 'Happy' with a mean of score 12,55 among the emotion categories. The participants performed the poorest in 'Hate' category, with a mean score of 7,74.

Concerning the second research question, it can be observed that there is a significant difference between the tokens elicited for emotion and non-emotion categories. The participants were able to write down more words for non-emotion categories compared to emotion categories. In fact, the students performed better at the 'Body Parts' for which the least words were written down (Mean = 13,6) among non-emotion categories than the 'Happy' for which they generated the most words (Mean = 12,55) among emotion categories.

Table 2 and Table 3 show the most frequent 10 words in each category that were examined to gain insights into learners' mental lexicon and how it operates when making decisions on non-emotion and emotion categories.

Table 2: The Most Frequent Ten Responses in Non-Emotion Categories

Animals	*n*	**Body Parts**	*n*	**Food and Drink**	*n*	**School**	*n*
dog	151	*eye*	161	*water*	149	*pencil*	156
cat	143	*finger*	139	*coke*	91	*teacher*	152
lion	113	*nose*	136	*tea*	86	*student*	119
bird	108	*leg*	134	*apple*	83	*book*	117
fish	80	*head*	133	*juice*	80	*board*	91
elephant	77	*arm*	131	*bread*	75	*eraser*	81
monkey	72	*hair*	129	*milk*	75	*lesson*	80
cow	71	*foot*	124	*beer*	73	*desk*	79
tiger	70	*hand*	114	*hamburger*	69	*maths*	77
snake	66	*shoulder*	105	*orange*	64	*exam*	74

Table 2 demonstrates that in non-emotion categories, most shared response in 'Animals' category was *dog* (n= 151), in 'Body Parts' category it was *eye* (n= 161), for 'Food and Drink' comes *water* (n= 149), and in 'School' category it was *pencil* (n= 156). Overall, among the most frequent ten words of four categories, 'Body Parts' had the most shared responses. Each of the most frequent ten responses in this category was generated by more than one hundred participants.

Table 3: The Most Frequent Ten Responses in Emotion Categories

Love	*n*	**Hate**	*n*	**Happy**	*n*	**Sad**	*n*
girlfriend	89	*school*	80	*family*	94	*cry*	52
heart	62	*people*	45	*friend*	75	*life*	44
family	59	*lie*	38	*money*	62	*miss*	33
kiss	56	*love*	36	*love*	61	*love*	31
girl	52	*bad*	33	*sleep*	57	*music*	31
meet	39	*life*	30	*holiday*	51	*school*	31
boyfriend	34	*lesson*	28	*sport*	46	*bad*	27
mother	30	*run*	24	*car*	39	*death*	25
friend	29	*exam*	20	*girlfriend*	37	*exam*	23
child	26	*enemy*	17	*weekend*	36	*unhappy*	23

On the other hand, Table 3 shows that in emotion categories, most frequent response in the category of 'Love' was *girlfriend* (n= 89), for 'Hate' category it was *school* (n= 80), for 'Happy' it was *family* (n= 94), and for 'Sad' was *cry* (n= 52). The most shared word among all categories of the lexical availability test was *eye*, belonging the category of 'Body Parts'. Out of 180 students, 161 of them wrote this word on their papers as an immediate response to the lexical availability prompt. The least frequent top word among all the categories was *cry* in 'Sad' category. Only 52 students wrote the most common word for this category.

Table 4: 1000-5000 Word Band Percentage Distribution of the Most Frequent Ten Words in Eight Semantic Categories

	1000-5000 word percentage of most frequent ten words
K1	75.00%
K2	18.05%
K3	-
K4	2.78%
K5	4.17%

Additionally, to find out which of the first five 1000-word bands all the top 10 responses belong to, the corpus of BNC / COCA was utilized. The responses *lesson, exam, girlfriend, family, friend, school, bad, life,* and *love* were observed in more than one category. In order to calculate the percentage of unique words, repeated words in different categories were regarded as one word. In total, the number of the participants' ten most frequent unique responses to eight categories was sixty nine. Eleven words were disregarded due to repetition. Table 4 indicates that 75,00% of the top ten answers belonged to the first 1000-word frequency band, followed by 18,05% on 2000-word band, zero percent on 3000-word band, 2,78% on 4000-word band, and 4,17% on 5000-word band. The words that are within the 1000-word frequency band were *dog, cat, bird, fish, eye, finger, nose, leg, head, arm, hair, foot, hand, shoulder, water, tea, bread, milk, orange, teacher, student, book, board, girlfriend, heart, family, kiss, girl, meet, boyfriend, mother, friend, child, school, people, lie, love, bad, life, run, money, sleep, holiday, sport, car, weekend, cry, life, miss, music, death,* and *unhappy*. The words participants came up with that belonged to the 2000-word frequency band were *lion, elephant, monkey, cow, snake, apple, juice, beer, lesson, desk, maths, exam,* and *enemy*. None of the top ten responses were in the 3000-word frequency band. Only two words belonged to the 4000-word frequency band: *tiger* and *pencil*. Finally, three responses were in the 5000-word frequency band: *coke, hamburger,* and *eraser.*

Table 5: Mean Percentages of the Items Generated in the Lexical Availability Test Based on 1000-5000 Word Frequency Bands.

	Animals	Body Parts	Food and Drink	School	Love	Hate	Happy	Sad	MEAN
1000	40,40%	78,70%	35,10%	59,50 %	81,10 %	64,60 %	78,10 %	73,40 %	63,86 %
2000	27,50%	12,50%	35%	20,10 %	10,90 %	20,30 %	10,80 %	18,60 %	19,46 %
3000	1%	0,80%	0,60%	4,60%	2,20%	3,70%	2,90%	2,90%	2,34%
4000	9,80%	3,70%	4%	8,10%	2,30%	3,10%	1,30%	1,20%	4,19%
5000	7%	1,90%	8,70%	3,30%	1%	2%	2,20%	0,80%	3,36%

Regarding the fourth research question, 1000-5000 word frequency band percentages of the items collected through lexical availability prompts were calculated. The results shown in Table 5 were not consistent for all the prompts. 'Love' prompt had the highest percentage (81,10%) of the 1000-word band, meanwhile 'Food and Drink' had the lowest (35,10%). Nevertheless, 'Food and Drink' had the highest percentage (35%) on the 2000-word band, whereas 'Body Parts' had the lowest (12,50%). In the 3000-word band, the highest one was 'School' with 4,60% and the lowest one was 'Food and Drink' with 0,60%. For the 4000-word band, participants generated the highest percentage of words on 'Animals' category with 9,80% while they produced the lowest percentage of words 'Sad' category with 1,20%. Finally, 'Food and Drink' held the highest percentage among the 5000-word band categories with 8,70%. The lowest percentage on the 5000-word band categories was held by 'Love' prompt with 1%. The smallest difference between the highest and lowest percentages was observed on the 3000-word band (4,60% - 0,60%). On the other side, the largest difference between the highest and lowest percentages was seen on the 1000-word band (81,10% - 35,10%). Besides, on average, 63,86% of the words elicited in eight categories were in the 1000-word frequency band, followed by 19,46% in the 2000-word band, 2,34% in the 3000-word band, 4,19% in the 4000-word band, and finally 3,36% in the 5000-word band. In total, words elicited via eight semantic categories comprised 93,21% in the first five 1000-word frequency bands. The remaining 6,79% of the words were found to be in 6000-word frequency band and above, therefore, were excluded from the analysis of this study.

4.2. Receptive Vocabulary Data Analysis

The New Vocabulary Levels Test (NVLT) based on the British National Corpus / Corpus of Contemporary American English (BNC/COCA) word list was given to the students to measure their receptive vocabulary knowledge. The mean, mode, median, min, max, and standard deviation values of students' answers for each 1000-word frequency level were calculated (Table 6).

Table 6: Participants' scores of the Receptive Vocabulary Test (NVLT) within Frequency Bands.

	1000-Band (out of 24)	**2000-Band (out of 24)**	**3000-Band (out of 24)**	**4000-Band (out of 24)**	**5000-Band (out of 24)**
MEAN	21,01	15,66	11,77	8,19	11,01
MODE	22	14	12	4	10
MEDIAN	21	15	12	8	11
MIN	11	5	3	0	0
MAX	24	24	19	20	20
SD	2,21	3,64	3,55	4,29	3,62

Each 1000-word level section included twenty four questions. The mean frequency for the 1000-word level was 21,01 out of twenty four questions. At the 2000-word level, participants' mean performance was 15,66. Participants' mean performance on the 3000-word level was 11,77. The participants performed better at the 5000-word frequency level (Mean=11,01) than they did at the 4000-word frequency level (Mean=8,19). Furthermore, the mean score for the 5000-word frequency level (11,01) was also close to the mean score of the 3000-word frequency level (11,77). Another result was that while the maximum score on the 3000-word level was 19, it was 20 for both the 4000-word level and the 5000-word level.

For the purpose of grasping a better idea of learners' receptive vocabulary knowledge, each test was separately scored, and each 1000-word band was written down separately to find out participants' overall estimated receptive vocabulary sizes (Table 7).

Table 7: Estimated Receptive Vocabulary Size Values (Based on the calculation of Kavanoz and Varol (2019)).

MEAN	2818
MODE	2500
MEDIAN	2833
MIN	1083
MAX	4417
SD	621,96

This procedure was followed by the calculation of the scores. Each participant's total score out of 120 items included in five parts was multiplied with 5000 and then divided by 120 (Kavanoz & Varol, 2019). In other words, the number of correct answers was multiplied with the number of band levels concerned (5*1000 in this case), and then divided by the number of total items (120). Finally, the mean of the participants' scores was calculated to determine the mean receptive vocabulary size. Table 7 indicates that the mean receptive vocabulary size of the participants, assessed with the NVLT, was 2818 out of 5000, which is a score corresponding to the receptive vocabulary knowledge of a B1 level English language learner based on the CEFR (2750-3250 words approximately). Furthermore, there is a considerable difference between the lowest and the highest score of the participants. The lowest score for receptive vocabulary was 1083. On the other hand, the highest score was 4417. The standard deviation value was 621,96.

4.3. Productive Vocabulary Data Analysis

In order to calculate students' productive vocabulary sizes, they were asked to write an essay between 200 and 300 words. All the words in the essays of each participant were separately registered to BNC/COCA database to find out participants' estimated productive vocabulary sizes. Word types were taken into account when calculating. Spelling mistakes were corrected and added into the corpus database in their true

forms. The mean percentage for each 1000-word band level was calculated to gain insights about students' productive vocabulary knowledge.

Table 8: Descriptive Statistics of the Distribution of the Essay Words within Frequency Bands (%)

	1000-Band	**2000-Band**	**3000-Band**	**4000-Band**	**5000-Band**
MEAN	88,69%	6,96%	2,69%	0,50%	0,35%
MODE	88,14%	5,26%	1,16%	1,03%	1,03%
MEDIAN	88,84%	6,59%	2,67%	1,15%	1,03%
SD	4,71%	3,15%	1,82%	0,72%	0,57%

Table 8 indicates that, on average, the participants 88,69% used the 1000-word band, 6,96% the 2000-word band, 2,69% the 3000-word band, 0,50% the 4000-word band, and 0,35% the 5000-word band level items in their essays (Table 8). The sum of K1-K5 band percentages was 99,19%. The remaining 0,81% included the words belonging to K6 band and above, therefore these words were not included in the analysis. The standard deviation value was the highest on the 1000-word band (4,71%), and the lowest on the 5000-word band (0,57%).

5. DISCUSSION AND CONCLUSION

In this descriptive study, B1 level first grade university students' level of lexical availability, receptive and productive vocabulary knowledge were assessed to observe how their mental lexicon reacts to specific semantic categories. Related findings and implications from the literature were taken as reference in order to explain certain results that have been found out in this thesis study. By combining the background of three main topics and the particular findings of this study, answers to the research questions were discussed and attempted to be explained in this section in separate sub-headings. In addition, a general conclusion for each major topic were constructed. Eventually, the possible implications inferred from this study are stated. This part is followed by the limitations and recommendations for researchers, practitioners, material developers and future studies.

5.1. Discussion on the Findings for RQ1

By using four non-emotion and four emotion semantic prompts, a lexical availability elicitation tool was created and conducted to measure EFL learners' lexical availability level. In total, participants came up with a total of 17923 words as responses to eight categories. Regarding the first research questions, it can be observed that participants produced different numbers of words across eight semantic categories. Most words were elicited for 'Food and Drink' category, a sum of 2941 words followed by 'School' (2830 words), 'Animals' (2520 words), 'Body Parts' (2448), 'Happy' (2259), 'Love' (2056), 'Sad' (1476), and 'Hate'. Learners generated the least number of words for 'Hate' category, with 1393 words in total. The findings of this study were similar to previous studies. Catalán and Dewaele (2017) applied the same lexical availability elicitation method to sixth-grade A2 level young Spanish EFL learners except for two categories: 'Food and Drink', and 'Body Parts'. They used six categories: School, Animals, Love, Hate, Happy, and Sad. In their study, the order of the categories with the most elicited words were as followed: School > Animals > Happy > Love > Hate

> Sad. Their study also found out that young Spanish EFL learners generated more words for 'School' than 'Animals'. Catalán and Dewaele (2017) found out that for the emotion categories, most words were generated for the prompt Happy followed by Love, Hate, and Sad. However, in our study, the order is Happy, Love, Sad, and Hate. It should be noted that there was a slight difference in the order of emotion categories' mean scores. This difference concerns the last two. The difference is not substantial, but it shows us that six grade Spanish EFL learners are more lexically available for the prompt Hate than Sad, meanwhile first year students in a state university in Turkey produce more words for the prompt Sad compared to Hate. Turkish EFL learners wrote down more words for 'Sad' category (mean = 8.24 words) than 'Hate' category (mean = 7.77 words). A study conducted by Hernandez-Munoz et al. (2006) with young adult Spanish EFL learners showed similarity, in that, 'Animals' category surpassed 'Body Parts' in terms of lexical availability.

In contrast, in a lexical availability study comparing novice and advanced EFL students whose major is English literature, Akbarian et al. (2020) found out different results regarding the non-emotion categories. Iranian EFL students from state universities performed the best in the 'Body Parts' category with a mean of 13.76, followed by 'Animals' with 11.39, 'School' with 11.12, and 'Food and Drink' with 9.75 on average. The order is completely the opposite, compared to this thesis study on Turkish EFL learners. One reason for this might be the proficiency level of the learners. Since advanced EFL students have a better vocabulary size than B1 level students whose major is not English, it is highly likely that they can utilize vocabulary in a high variety of contexts. On the other hand, 'Food and Drink' category includes a high variety of words to recall from daily life for a B1 level student. Cultural differences might cause the converse results, in the sense that Turkish students may have matched their L1 knowledge of this particular category with those of L2 knowledge (Wolter, 2006). In the same manner, cognates could create a difference across the semantic categories. Further research is required in both languages to prove and generalize these assumptions. In addition, it is clear that at different proficiency levels, results likely vary.

The reason why 'Food and Drink' category elicited the most words can be explained with the everyday language. Words that belong to this category are always in learners' lives, usually three times a day, and such words come from a vast pool of variety.

Likewise, when learning a new language, learners firstly tend to acquire what they often encounter in their daily lives. Therefore, it is not a surprising result to have the most words for this category. Besides, 'Food' and 'Drink' may trigger different concepts in leaners' mental lexicon, thus giving them an opportunity to come up with more words than other categories.

5.2. Discussion on the Findings for RQ2

Lexical availability data was collected via semantic prompts. Four non-emotion and four emotion categories were determined. Participants generated more words at non-emotion categories compared to emotion categories, which showed similar results with previous studies (Catalán & Dewaele, 2017). The fact that students could come up with more non-emotion items can be interpreted with the dual-coding theory which supports these findings (Paivio, 1990, 2010; Schwanenflugel et al., 1992). According to the basics of dual-coding theory, there are two main representational systems in the lexicon: the verbal system, and the imaginal system. Both concrete items and abstract items are reflected in the verbal system. However, human lexicon can recall concrete words more effectively than abstract words which are not represented in the imaginal system, namely, the imaginal system is solely activated for concrete words, also creating an additive effect, thus providing a virtue over abstract words (Paivio, 1991; Schwanenflugel & Akin, 1994). The abovesaid working mechanism of the two systems in the mental lexicon may explain why students are significantly better at generating non-emotion words than emotion words in the lexical availability test. Taylor et al. (2022) found out that concreteness and imageability were highly related to context availability. From the findings of this study, it can be inferred that language learners are able to contextualize concrete and non-emotion words more efficiently than emotion words.

Another explanation as to why non-emotion words were greater in numbers may be students' low exposure to emotion words. Kaneko (2003), who explored advanced level Japanese, Chinese and French EFL learners' use of emotion words through interviewing observed that they paid a small amount of attention to emotion words in English language teaching. In this study, it was observed that EFL learners focused more on non-emotion words, which in turn resulted in more elicited words in such semantic categories. Still, in order to make better generalizations for Turkish EFL

learners', further research is required comparing non-emotion and emotion words since high exposure is still a possibility. Therefore, results may vary. Especially, the course books which university students get exposed to in their primary and secondary school should be examined to see the density of words concerning the emotion prompts.

5.3. Discussion on the Findings for RQ3

Regarding the third research question aiming to find out what words learners use in common, top ten most frequent words in each category were calculated to gain insights into B1 level learners' immediate vocabulary use in different semantic categories. These frequently shared responses can give ideas about how language learners' mental lexicon operates in certain contexts. There were more shared words in non-emotion categories compared to emotion categories. These findings might be explained with Paivio's (1990, 1991, 2010) concept of dual-coding theory, which states that mental lexicon reacts differently to concrete and abstract words. According to this theory, concrete words have functional imagery advantage over abstract ones. When making decisions, human lexicon tends to select and utilize concrete words. Concrete words are recalled better because of their high imageability levels, which most likely stems from the fact that such words evoke more memorable images. This may also be the case in the sense of lexical availability. By giving specific semantic prompts to elicit words, students are made to recall related words within a short period of time. In such manner, their mental lexicon gets activated during the lexical availability test, resulting in generating more shared words for the non-emotion categories.

5.4. Discussion on the Findings for RQ4

The fourth research question aimed to gain insights about the size of B1 level learners' lexical availability based on the BNC/COCA. Therefore, the 1000-5000 frequency band percentages of the words generated for eight semantic categories were calculated. The findings were highly volatile. While emotion categories showed relatively consistent results across K1-K5 frequency bands, non-emotion categories signified considerable differences, especially in the K1 band, in other words, the most frequent ones. Of course, one possibility is that emotion prompts elicited far fewer words than the non-emotion parts, so presumably variation of words across the first five 1000-

word frequency bands are higher in non-emotion categories. The most interesting results were seen in the 'Food and Drink' category. The numbers of words participants generated for K1 and K2 were almost the same in this category (K1: 35,1%; K2: 35%). Additionally, this category had the highest percentage rate in the K5 band with 8,70%, meanwhile students generated fewer words in the K3 band for this category, with 0,60%. Since there is little to no study on the relationship between lexical availability test findings and designated frequency bands of elicited words in the corpus, it is unclear if the participating students have great vocabulary knowledge of words regarding 'Food and Drink' in the K2 and K5 bands. One assumption may be that related words, both frequent and infrequent, are commonly used both in L1 and L2. Hence, the learners had learned a significant number of words in K2 and K5 bands concerning this category. Another explanation may be the cultural difference in terms of words belonging to specific categories. Turkish language and culture is rich in the sense of 'Food and Drink' because of the cuisine that includes a variety of different words that people utilize in their daily lives. When learning vocabulary on L2, students activate their L1 lexicon to acquire, match, and internalize new items and also look for the ones they are already familiar with (Wolter & Gyllstad, 2011). In return, students may be building a large range of vocabulary of food and drinks in the target language. On the other hand, considering the considerable difference across non-emotion categories, it is also possible that the findings are coincidental. For instance, for the 'Body Parts', the participants generated 78,70% of the words within the K1 frequency range, compared to 35,10% in 'Food and Drink'. The most frequent 1000 word in English Language highly likely involve more words related to 'Body Parts' than it does for 'Food and Drink'. The same thing may also be the case for the K2 band where the rate of 'Body Parts' was 12,50% and 'Food and Drink' was 35%. There are most probably more words belonging to 'Food and Drink' category in K2 frequency band than 'Body Parts'. Yet, a specific classification of different semantic categories within corpora as to what words fall into which frequency band is necessary to make comments and generalizations. On the other hand, if this particular case is assumed coincidental, then this is likely the border where lexical availability and productive vocabulary knowledge is separated, in that, lexical availability should not completely be regarded as the knowledge of the words. Instead, it is a language aspect, simply reflecting whether learners are able to retrieve the words from the lexicon that are related to a specific semantic category.

Taking aforementioned assumptions and possibilities into account, it should be noted that the relationship between lexical availability and word frequency bands have to be further studied in order to gain clearer insights. More studies are required to be conducted in various settings, proficiency levels, age groups, and also in different countries and regions in order to find out whether the percentages would indicate similar results or not. In addition, a separate corpus can be structured as to how many words each semantic prompt triggers in each frequency band in order to make a better comparison across them.

5.5. Discussion on the Findings for RQ5

Receptive vocabulary data was collected via using New Vocabulary Levels Test (McLean & Kramer, 2015). The results showed unexpected outcomes in terms of different 1000-word level bands in that, while the 4000-word band mean score was 8.19, the 5000-word band mean score was 11,01 out of twenty-four questions for each. One of the reasons that may have led to this variation is the presence of cognates in the 5000-word band. Cognates are very common between English and Turkish (Uzun & Salihoglu, 2009). For instance, the participants were supposed to find the closest mean for 'dinosaur' in the 5000-word band. This word corresponds to 'dinozor' in Turkish. Another example to this issue is the word 'technician' whose translation is 'teknisyen' in Turkish. Also, 'miniature' and 'minyatür', 'logo' and 'logo', 'volt' and 'volt', and lastly 'circus' and 'sirk'. On the other hand, the 4000-word band has fewer cognates than the 5000-word band: 'sheriff' and 'şerif', 'cube' and 'küp', and lastly 'romance' and 'romantizm'. In the light of these examples, it can be assumed that the cognates most likely affected the results of the mean scores in these bands. From the point of view of a B1 level Turkish EFL student, the questions included the items above seemed fairly easy to answer.

In addition, the 5000-word band questions ask for the meaning of the words with which a language learner might be familiar. For example, the words 'vocabulary' and 'spider' were given to the students for which they have to find the closest meaning. Theoretically, these words belong to the 5000-word band in BNC/COCA database, yet in practice, B1 level university students are relatively aware of them in their lives. They are familiar with the word 'vocabulary' thanks to their EFL lessons and since they have been trying to develop their word knowledge in English, they always

encounter this particular word. Moreover, the word 'spider' is very common in the entertainment sector such as movies and books, thus making it much easier compared to other 5000-word band items.

On the other hand, participants' levels of receptive vocabulary can be explained within the boundaries of CEFR levels. The average vocabulary size of Turkish EFL students in this study was 2818, corresponding to the estimated numbers of X-Lex test suggested by Meara and Milton (2003) for the B1 level of the CEFR (between 2750 and 3250 words).

Another issue to take into consideration is the country in which the study was conducted. Language families, cognates and familiar concepts play a significant role when learning new words in English. In Turkish Language, there are cognates making specific words easier to learn and memorize. If this particular study were to be carried out in another country whose native language is from another language family containing little to no cognates or familiar concepts, it would be harder for participants to perform well at high level word bands. Therefore, it would not be surprising to observe different outcomes. To make wider generalizations about EFL learners' receptive vocabulary knowledge, a substantial number of research ought to be designed for different levels and age groups within various countries speaking different native languages.

5.6. Discussion on the Findings for RQ6

The sixth and the last research question aimed to explore Turkish EFL learners' productive vocabulary knowledge via an essay writing task. In this study, similar to Laufer and Nation's (1995) LFP, students were asked to write an essay about a topic given to them. In a paralleled fashion, words that are clearly incorrect; for instance, Turkish words and words that do not exist in English were disregarded and not added into the analysis. In addition, minor spelling mistakes were corrected and added into the data analysis, and also proper nouns were not included. From the findings, it can be concluded that EFL students did not demonstrate a rich word diversity while writing their essays. On an average, 88,69% of the words they utilized in their essays were in the range of most frequent 1000 words, followed by 6,96% on K2 band, 2,69% on K3 band, 0,50% on K4 band, and 0,35% on K5 band. We can infer that their productive vocabulary use is limited to the first 1000 high frequency words in writings. Their

production on K4 and K5 band combined is below one percent, meaning that the participants did not generate various words in these bands. Production is an incremental element of a language, improved by practice and exposure and therefore correlated with proficiency level. When compared with the receptive vocabulary knowledge test that these learners took in which they performed much better in K4 and K5 bands, the participants did not perform as well as they did in their receptive vocabulary knowledge test. One reason can be the poor productive fundamental of the learners, namely, their previous writing practice and experience may be at low levels compared to their receptive exposure. This is common for Turkish EFL learners. One of the most shared problems when learning English in Turkey is as follows: "I can understand what others say, but I cannot answer back". Likewise, lack of practice with new vocabulary may have brought about these results. Many learners do not use the new word in a sentence or in a context. Simply learning the meaning of a new word does not ensure that this word will be kept in the long-term memory and used in production. In other words, students may have difficulties in terms of deciding what word to use in a particular sentence, and in turn use the simplest one they can recall. Main roots of this issue should be investigated and further studied in order to come up with solid opinions as to how to improve Turkish EFL learners' production skills.

Unlike LFP that used two essays consecutively, this study utilized only one composition writing to find out learners' productive vocabulary knowledge. More importantly, in contrast to LFP that measures learners' productive vocabulary on 1000 word, 2000 word, the AWL, and the 'not in the lists' categories, this study utilized the first five 1000 word frequency bands of BNC / COCA corpus, namely the most frequent 5000 words, in order to categorize them in certain borders. Previously, it was assumed that words did not belong to 1000 and 2000 frequency bands were infrequent ones (Laufer & Nation, 1995). The term 'infrequent' may not seem to be a strong, certain indicator of such words since, for instance, it is not known whether an infrequent word is in the 3000 band or in 10000 band or above. A word belonging to 3000 word band should not be categorized the same as a word falling the range of 10000 word band and above. Because the number of English language learners has increased in the past decades thanks to technological improvements, growth of transportation opportunities and for other commercial and educational purposes, there is no doubt that learners' potential and capacity of language skills as well as vocabulary

development have enhanced along with such factors (Altan, 2017; Johnson, 2009). Therefore, it would be unfair for language learners to categorize their 3000 word frequency band items as 'infrequent'. Hence, the need for an updated corpus classification occurs here. There is a need for more vocabulary size studies in the literature with higher numbers of word frequency bands that include 3000 band and above. One way to create categories for such matter is to conduct research across different proficiency levels in order to determine which frequency bands reflect different proficiency levels, ranging from A1 to C2 based on CEFR. In the light of these factors, one of the purposes of assessing learners' productive vocabulary knowledge in this study with the first five 1000 word frequency bands is to be able to provide future language researchers and practitioners with certain boundaries regarding the frequency of words used by language learners in different proficiency levels. This study could only reach to B1 level students in this sense, thus literature needs to be extended with more studies in the future in various settings to create sharp ranges for all proficiency levels.

5.7. Implications

The findings of this research propose certain implications for the future of vocabulary use and learning, listed below:

1. Language learners are more inclined towards using words concrete words due to several factors mentioned in the study, also their knowledge of words regarding emotions are limited. In order for learners to be able to utilize them, more emotion words should be included in textbooks, contents, materials, and communicative and written tasks. That way, students will become more exposed to such words, thus they will be able to understand and use them more in their language learning process.

2. Learners' productive vocabulary variety was observed to be limited in their essays. Considering their frequency range, it is likely that language learners are repetitive in their word choices when writing essays. The main reason causing this is perhaps the lack of related practice. Explicit instruction has been found to be effective on learning new vocabulary items. Hereupon, language teachers are highly advised to use explicit explanation when correcting a misused word in an essay. More importantly, it is crucial to lead students to use the appropriate words for such situations. When giving feedback, a related collocation or a sentence in which the correct word is used can be

provided for the learners, which will enable students utilize these forms in their future writing tasks.

3. Vocabulary learning is an incremental process. It is ideal for language teachers to provide learners with as many materials as possible for a long term. When a new word is introduced into learners' mental lexicon, it is not immediately held and kept there. It takes time to strengthen it to make it a solid, receptive knowledge which learners will not have problems comprehending it. After this point, the teacher takes the key role regarding how much exposure the learners will be under, and how much practice they will be dealing with in a long period in order to make them confident and fluent in their productive vocabulary use. Rarer words should be practised in order to broaden learners' productive vocabulary knowledge. When words are explicitly instructed, students are more likely to comprehend and cement the use of them in desired contexts. Different types of genres can be utilized to teach diverse words. The better the teacher guidance is, the broader the learners' vocabulary knowledge will be.

4. Mobile dictionary apps can be developed in order to improve learners' vocabulary size, both in the receptive and the productive way. For instance, when learners look up for a synonym, most dictionaries provide them with related words, yet usually not indicating their frequency. If a mobile dictionary app with synonyms function is developed with the feature of checking the frequency of words and their synonyms, not only will the students have the opportunity to learn new vocabulary items, but also it will boost their self-confidence when they realize they are able to use a wide variety of words, even the infrequent, yet suitable and needed ones. Desktop apps are not always accessible, especially in the classrooms in the case of being in a need of looking up a word. Therefore, in this technology age where almost everyone has access to a mobile phone which is easier and more practical in many settings, more mobile dictionary apps ought to be created.

5.8. Limitations

Even though the instruments were chosen carefully and administered properly, and appropriate data analysis were utilized to find out the results, some limitations were observed and listed below:

1. There are other instruments to collect data on receptive and productive vocabulary knowledge. Therefore, the collected data is limited to the instruments applied in this study, which are NVLT test for receptive vocabulary, and an essay writing task for productive vocabulary.

2. During the receptive vocabulary data collection (NVLT), the participants were asked not to answer the questions asking for a word that they do not have an idea about. Additionally, the NVLT consisted of 120 questions. These two factors combined may have caused some impatient participants to rush the test without carefully reading the questions.

3. This study was conducted in Turkey, and all the participants were Turkish students whose native language is Turkish. The findings may differ in other countries since different native languages affect EFL learning and specifically vocabulary learning at various rates. For example, cognates were given as an example that possibly have influenced the results of receptive vocabulary test. Some languages have more cognates, and some have fewer cognates in English than Turkish language has. Therefore, the implications of this study concerning learners' receptive vocabulary may not be applicable to other contexts. It might be possible to get more consistent results within the 1000-word bands should the questions be revised and modified in a way that they include less cognates.

4. Since the rate of the use of concrete and abstract words gradually changes as learners age, the lexical availability test may not reveal similar results regarding non-emotion and emotion responses when applied to different age groups. Further research is required to make generalizations across different age groups.

5. For the productive data, in order to get a more reliable result, two essays could have been used as in Laufer and Nation's Lexical Frequency Profile (LFP). However, it was not possible to conduct two essays consecutively with the sample group of this study. Future researchers may ask participants to write two different essays, one with a specific topic determined beforehand, and another one with a topic they will chose among several topics.

5.9. Recommendations for Future Research

Lexical availability is an innovative topic in the field. There are few studies on lexical availability and those studies are usually limited in the world since there are only few researchers carrying out studies in specific contexts. Therefore, solid generalizations may not be made only with the help of the studies in the literature. This study explores the performance of B1 level university students in Turkey. Since vocabulary development is a process beginning in childhood and shaped throughout the adolescence and adult ages, it is not feasible to assume the lexical availability results would be similar for different age groups. A similar study can be conducted for different proficiency levels and different age groups by future researchers. Furthermore, this study is descriptive in its nature. There is little to no up-to-date literature on correlating receptive and productive vocabulary knowledge sizes with the estimates of the six levels of the CEFR. Future researchers can investigate the correlation between receptive and productive vocabulary knowledge to contribute to vocabulary studies. Further research is required to come up with certain word ranges for the six levels in order to use the CEFR universally when assessing vocabulary knowledge scores.

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APPENDICES

Appendix 1

Lexical Availability Elicitation Tool

ANIMALS	**Student Number:**
1.	13.
2.	14.
3.	15.
4.	16.
5.	17.
6.	18.
7.	19.
8.	20.
9.	21.
10.	22.
11.	23.
12.	24.

Appendix 2

The New Vocabulary Levels Test

This is a vocabulary test.
Please select the option a, b, c, or d which has the closest meaning to the word in **bold**.

Example question

see: They **saw** it.
a. cut
b. waited for
c. looked at The correct answer is **c**.
d. started

If you do not know the word at all, please do not answer the question and continue to the next question.

However, if you think that you may know the word, please try to answer.

Let's begin.

Bilingual versions of this test are also available in Japanese and Chinese. If you are interested in making a version in a different language please feel free to do so, and contact the authors if necessary or required.

Please cite this test as:
McLean, S., & Kramer, B. (2015). The creation of a New Vocabulary Levels Test. *Shiken, 19*(2), 1-11.

Version 4.5

NVLT Part 1

1. time: They have a lot of **time**.
a. money
b. food
c. hours
d. friends

2. stone: She sat on a **stone**.
a. hard thing
b. kind of chair
c. soft thing of the floor
d. part of a tree

3. poor: We are **poor**.
a. have no money
b. happy
c. very interested
d. tall

4. drive: She **drives** fast.
a. swims
b. learns
c. throws balls
d. uses a car

5. jump: She tried to **jump**.
a. lie on top of the water
b. get up off the ground
c. stop the car on the road
d. move very fast

6. shoe: Where is your other **shoe**?
a. the person who looks after you
b. the thing you keep your money in
c. the thing you use for writing
d. the thing you wear on your foot

7. test: We have a **test** in the morning.
a. meeting
b. travelling somewhere
c. a set of questions
d. an idea to do something

8. nothing: He said **nothing** to me.
a. very bad things
b. zero
c. very good things
d. something

9.cross: Don't **cross**.
a. go to the other side
b. push something
c. eat too fast
d. wait for something

10. actual: The **actual** one is larger.
a. real
b. old
c. round
d. other

11. any: Does she have **any** friends?
a. some
b. no
c. good
d. old

12. far: You have walked **far**!
a. for a long time
b. very fast
c. a long way
d. to your house

13. game: I like this **game**.
a. food
b. story
c. group of people
d. way of playing

14. cause: He **caused** the problem.
a. made
b. fixed
c. explained
d. understood

15. many: I have **many**.
a. none
b. enough
c. a few
d. a lot

16. where: **Where** did you go?
a. at what time
b. for what reason
c. to what place
d. in what way

17. school: This is a big **school**.
a. where money is kept
b. sea animal
c. place for learning
d. where people live

18. grow: All the children **grew**.
a. drew pictures
b. spoke
c. became bigger
d. cried a lot

19. flower: He gave me a **flower**.
a. night clothes
b. small clock
c. beautiful plant
d. type of food

20. handle: I can't **handle** it.
a. open
b. remember
c. deal with
d. believe

21. camp: He is in the **camp**.
a. sea
b. place outside where people enjoy nature
c. hospital
d. building where people sleep

22. lake: People like the **lake**.
a. area of water
b. very young child
c. leader
d. quiet place

23. past: It happened in the **past**.
a. before now
b. big surprise
c. night
d. summer

24. round: It is **round**.
a. friendly
b. very big
c. very quick
d. with no corners

NVLT Part 2

1. maintain: Can they **maintain** it?
a. keep it like it is
b. make it larger
c. get a better one than it
d. get it

2. period: It was a difficult **period**.
a. small set of questions
b. time
c. thing to do
d. book

3. standard: Her **standards** are very high.
a. the back under her shoes
b. test scores
c. cost of something
d. level of how good she wants things to be

4. basis: This was used as the **basis**.
a. answer
b. resting place
c. next step
d. main part

5. upset: I am **upset**.
a. strong
b. famous
c. rich
d. angry

6. drawer: The **drawer** was empty.
a. box that goes in and out for clothes
b. place to keep cars
c. place used to keep things cold
d. animal house

7. pub: They went to the **pub**.
a. place where people drink and talk
b. place that keeps money
c. large building with many shops
d. building for swimming

8. circle: Make a **circle**.
a. rough picture
b. space with nothing in it
c. round shape
d. large hole

9. pro: He's a **pro**.
a. person who has the job to find important secrets
b. stupid person
c. person who writes articles
d. someone who is very good at doing something and is paid to do it.

10. soldier: He is a **soldier**.
a. person who works in business
b. person who studies at school
c. person who works with wood
d. person who fights in a war

11. result: They were waiting for the **results**.
a. right time
b. questions
c. money
d. effects of something

12. resist: They **resisted** it.
a. made it work again
b. looked at it twice
c. thought hard about
d. acted against

13. lend: She often **lends** her books.
a. lets people use them
b. draws inside them
c. cleans them
d. writes her name on them

14. refuse: She **refused**.
a. went back
b. thought about something
c. said no
d. stayed late

15. speech: I enjoyed the **speech**.
a. type of presentation
b. very fast run
c. short piece of music
d. type of hot food

16. pressure: They used too much **pressure**.
a. money
b. time
c. hard pushing
d. bad words

17. refer: She **referred** to him.
a. supported him
b. let him go first
c. talked about him
d. answered him

18. army: They saw the **army**.
a. black and white animal
b. place where books are kept
c. person who lives nearby
d. people who protect a country

19. knee: Take care of your **knee**.
a. small child
b. part of your leg
c. plan for spending money
d. something that is yours

20. rope: He found a **rope**.
a. thick and strong string
b. something used to make holes
c. strong box for keeping money
d. metal tool used to climb up high

21. brand: This is a good **brand**.
a. dance party
b. first try
c. place to wait for others
d. name of a company

22. seal: They **sealed** it.
a. fixed it
b. closed it tightly
c. looked at it carefully
d. opened it quickly

23. warn: They were **warned**.
a. pushed away
b. welcomed inside
c. told about bad things
d. led into war

24. reserve: They have large **reserves**.
a. things kept to use later
b. machine for making bread
c. money from other people
d. group that runs a company

NVLT Part 3

1. restore: It has been **restored**.
a. said again
b. given to a different person
c. given a lower price
d. made like new again

2. compound: They made a new **compound**.
a. agreement between two people
b. thing made of two or more parts
c. group that works together
d. guess based on past experience

3. latter: I agree with the **latter**.
a. man from the church
b. reason given before
c. second one of two things
d. answer to the spoken question

4. pave: It was **paved**.
a. stopped quickly
b. divided into many parts
c. given gold edges
d. covered with a hard surface

5. remedy: We found a good **remedy**.
a. way to fix a problem
b. place to eat in public
c. way to prepare food
d. rule about numbers

6. bacterium: They didn't find a single **bacterium**.
a. small living thing causing sickness
b. plant with red or orange flowers
c. animal that carries water on its back
d. thing that has been stolen and sold to a shop

7. behavior: Look at her **behavior**!
a. people who have come to listen
b. the way she acts
c. large amount of money
d. small land with water around it

8. fuel: Do you have any **fuel**?
a. material used to make energy
b. a drug that stops pain
c. clothing used to keep you warm
d. a material put in walls to keep heat inside

9. silk: It's made of **silk**.
a. smooth and soft cloth
b. hard black wood
c. animal fur
d. very light metal

10. conceive: Who **conceived** the idea?
a. told it to others
b. explained it
c. thought of it first
d. said it was bad

11. legend: It is now a **legend**.
a. building for keeping old things
b. thing that is always done
c. story from the past
d. event that happens regularly

12. impose: This was **imposed**.
a. completely changed
b. in the middle of other things
c. made to look like something else
d. forced to happen by someone in power

13. solution: There is no **solution**.
a. time
b. support
c. problem
d. answer

14. celebrate: We have **celebrated** a lot recently.
a. found something for the first time
b. seen many new places
c. worked very hard
d. had a lot of parties

15. independence: He has too much **independence**.
a. freedom from outside control
b. time by himself
c. physical strength
d. feeling of being better than others

16. tunnel: We need a **tunnel** here.
a. way through or under something
b. long piece of wood or metal to hold
c. mark on paper to show a short space
d. piece of material to cover a window

17. reward: He got a good **reward**.
a. things said about him by others
b. someone to help him in the house
c. money or gift for the things he did
d. large group of people to listen to him

18. review: The committee **reviewed** the plan.
a. examined it carefully for a decision
b. agreed to allow
c. made more just like it
d. threw it away

19. mode: The **mode** of production has changed.
a. type
b. speed
c. attitude
d. amount

20. personnel: I don't like the **personnel** there.
a. type of chair that folds
b. machine that controls the heat
c. people who work there
d. person who owns a company

21. competent: She was very **competent**.
a. very fast
b. made angry easily
c. able to do things
d. easily hurt

22. devastate: The city was **devastated**.
a. made beautiful for a special occasion
b. separated from the rest of the world
c. suffered great damage
d. made dirty by small animals

23. constituent: This is an important **constituent**.
a. building
b. agreement
c. idea
d. part

24. weave: She knows how to **weave**.
a. make cloth
b. join pieces of metal together
c. make people think something
d. trick people

NVLT Part 4

1. patience: He has a lot of **patience**.
a. ability to wait
b. free time
c. faith in God
d. knowledge

2. strap: She broke the **strap**.
a. promise
b. top
c. plate
d. belt

3. weep: He **wept**.
a. finished school
b. cried
c. died quickly
d. thought deeply

4. haunt: The house is **haunted**.
a. full of decorations
b. allowed to be used for money
c. completely empty
d. full of ghosts

5. cube: I need one more **cube**.
a. pin
b. box
c. cup
d. postcard

6. peel: Shall I **peel** it?
a. let it sit in water for a long time
b. take the skin off it
c. make it white
d. cut it into thin pieces

7. distress: He felt **distressed**.
a. unwanted
b. satisfied
c. unhappy
d. energetic

8. depart: She **departed** yesterday.
a. went away
b. said no
c. went down a hill
d. got worse

9. romance: They had a short **romance**.
a. difference of opinion
b. holiday away from home
c. serious discussion
d. love relationship

10. ambition: He has no **ambition**.
a. strong desire to do well
b. ability to understand people's feelings
c. ability to make new things
d. enjoyment of life

11. dash: They **dashed** over it.
a. ran quickly
b. walked slowly
c. fought bravely
d. looked quickly

12. drown: People have **drowned** here.
a. eaten outside
b. died in water
c. dug a hole
d. cut down trees

13. originate: It **originated** here.
a. grew very well
b. changed shape
c. remained
d. first started

14. leaf: He touched the **leaf**.
a. part of a plant
b. soft shoe
c. top of a bottle
d. glass window

15. amateur: She is an **amateur** player.
a. someone who plays for fun, not money
b. player who replaces other hurt players
c. player representing her country
d. ball-sports player

16. evacuate: They were **evacuated**.
a. moved to another place for safety
b. searched for guns or knives
c. frightened suddenly
d. made to look like criminals

17. exert: Don't **exert** yourself!
a. praise too much
b. hurt yourself
c. work too hard
d. give yourself everything you want

18. marble: It was made of **marble**.
a. hard stone
b. hard wood
c. soft metal
d. soft cloth

19. diminish: It has **diminished**.
a. become dark
b. become less in size
c. become cloudy
d. grown colder

20. sheriff: The **sheriff** was friendly.
a. pilot
b. housekeeper
c. policeman
d. teacher

21. monarch: They saw the **monarch**.
a. army group
b. gate
c. king or queen
d. criminal

22. plunge: It **plunged**.
a. danced around
b. was made quiet
c. dropped suddenly
d. stayed still

23. mourn: They **mourned** for several years.
a. performed on the street
b. felt very sad
c. worked hard
d. used their money carefully

24. fragile: These things are very **fragile**.
a. special
b. hard to find
c. popular
d. easily broken

1. scrub: He is **scrubbing** it.
a. cleaning
b. repairing
c. worrying about
d. drawing pictures

2. dinosaur: The children were pretending to be **dinosaurs**.
a. people who look for gold
b. small people that fly
c. animals that make fire
d. animals that lived a long time ago

3. nun: We saw a **nun**.
a. small worm
b. big accident
c. woman who serves her religion
d. strange light in the sky

4. compost: We need some **compost**.
a. strong support
b. mental help
c. strong material that is used for building
d. soil used to help the garden

5. miniature: It is a **miniature**.
a. small version of something
b. brick house
c. very small living creature
d. detailed plan for a building

6. crab: Do you like **crabs**?
a. small sea animals
b. hard thin salty bread
c. original copy of a piece of music
d. insect which sings and jumps

7. vocabulary: You will need more **vocabulary**.
a. words
b. skills
c. money
d. guns

8. corpse: The **corpse** was found in the park.
a. large and deep cup
b. mobile phone
c. artist's hat
d. dead body

9. rove: He is **roving**.
a. getting drunk
b. traveling around
c. making a musical sound with his lips
d. working hard using his body

10. divert: The rivers were **diverted**.
a. made to move in a different way
b. given bridges
c. made very dirty
d. made wider and deeper

11. trench: They looked at the **trench**.
a. mountain
b. long hole
c. pile of trash
d. beautiful sight

12. technician: She is a **technician**.
a. man with magical abilities
b. person who works with and fixes machines
c. doctor who cares for young children
d. person who is good at music

13. query: I have a **query**.
a. headache
b. large amount of money
c. question
d. good idea

14. mug: This **mug** needs a wash.
a. big cup
b. old car you like
c. clothes worn under other clothes
d. area in front of the door where rain and wind cannot reach

15. static: It's **static** at the moment.
a. not popular
b. demanded by law
c. often said
d. not moving or changing

16. slaughter: We read about the **slaughter** in the paper.
a. problem
b. scientific research
c. killing
d. sports event

17. spider: We caught the **spider**.
a. disease that gives red spots
b. small animal with eight legs
c. small public bus
d. oily fish

18. circus: We went to the **circus**.
a. place for people who love God
b. traveling company of entertainers
c. place where people run races
d. music group

19. sofa: He bought a **sofa**.
a. soft seat for two or more people
b. cutting machine
c. long pipe for putting water on the garden
d. a small car with four wheels that a baby can ride in while someone pushes it

20. logo: They have a pretty **logo**.
a. tree with red fruit
b. reception
c. picture or word that represents a company
d. a holiday home

21. commemorate: We must **commemorate** his actions.
a. remember something or someone
b. pretend to agree with something
c. protest against something
d. say good things about him

22. crook: They were **crooks**.
a. people who are not honest
b. people who work at hospitals
c. people who cannot walk
d. people who design buildings

23. volt: How many **volts** were used?
a. large envelope for business letters
b. something used to add flavor to food
c. units measuring electrical power
d. material that attracts other metals

24. warfare: Modern **warfare** is frightening.
a. crime
b. dancing
c. fighting
d. pollution

Appendix 3

ESSAY WRITING

For this phase of the research, you are supposed to write an opinion essay about the topic ‘Money cannot buy happiness. Do you agree or disagree?’. During the previous lessons, you were provided with examples and techniques on how to write an opinion essay. Please, depending on the number of opinions you can come up with, build your essay within 4-5 paragraphs, including one introduction paragraph, two or three body paragraphs, and a conclusion paragraph. Do not forget to write a thesis statement, and the topic sentences for your body paragraphs. Remember that you need to strengthen your ideas with examples and supporting sentences. You cannot ask for or look up the meaning of the words that you do not know, since this research aims to gain insights about your immediate vocabulary knowledge. Your essay should be between 200 and 300 words. You have 80 minutes to complete your writing. When the time is up, the sheets are going to be collected.

Best of luck!

Appendix 4

YILDIZ TEKNİK ÜNİVERSİTESİ
Sosyal ve Beşeri Bilimler Araştırmaları Etik Kurulu

Toplantı Tarihi: 20.10.2021 **Toplantı No:2021/08**

SOSYAL VE BEŞERİ BİLİMLER ARAŞTIRMALARI ETİK KURULU TOPLANTI KARARI

Yürütücülüğünü Üniversitemiz Eğitim Fakültesi öğretim üyelerinden Doç. Dr. Suzan KAVANOZ danışmanlığında lisansüstü öğrencisi Öğr. Gör. Berat Emre ŞAHİN'in yapacağı **"Turkish EFL Students' Lexical Availability in English "** adlı çalışma ve bu çalışmada kullanılacak veri toplama araçları ve yöntemlerine ilişkin bilgilerde etiğe aykırı herhangi bir bulguya rastlanmamıştır.

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