ISTANBUL SABAHATTIN ZAIM UNIVERSITY

INSTITUTE OF SOCIAL SCIENCES

DEPARTMENT OF ENGLISH LANGUAGE TEACHING

THE EFFICIENCY OF MOBILE ASSISTED LANGUAGE LEARNING (MALL) IN VOCABULARY LEARNING

MA THESIS

Enes ATAY

Istanbul

February, 2020

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Supervisor

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THESIS APPROVAL

This study has been approved in partial fulfillment of the requirements for MA Degree in English Language and Literature.
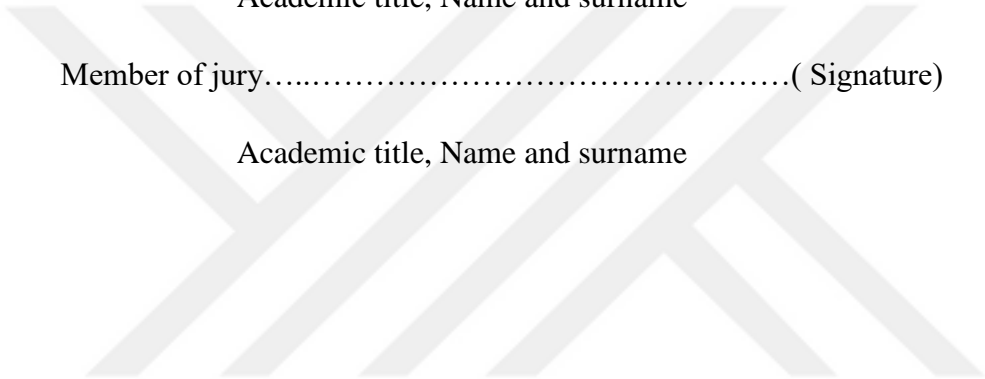
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DECLARATION OF SCIENTIFIC ETHICS AND ORIGINALITY

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ABSTRACT

THE EFFICIENCY OF MOBILE ASSISTED LANGUAGE LEARNING (MALL) IN VOCABULARY LEARNING

Enes ATAY

Master, English Language Teaching

Thesis Supervisor: Asst. Prof. Dr. Özlem ZABİTGİL GÜLSEREN

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In today's world of technology, it has never been easier for people to access information, thanks to the accessibility through a single screen, affectionally known as the computer. Accessing information has opened the door to developments that will deeply affect the education world where information exchange is intense.

Firstly, there has been the development and implementation of computer aided learning systems. As computers become more portable and mobile phones become even more sophisticated through computerisation, we have seen mobile learning spread rapidly. Mobile learning has become one of the most popular learning tools of recent times, offering self-learning with no time and space constraints. For this reason, learning vocabulary in foreign language through mobile applications has been examined as a research area. A semi-experimental study was carried out with Memrise, a mobile word learning application. Control and experimental groups were formed from students studying in English preparatory classes of a university. In the classroom of the control group students, the course was taught as usual. Experimental group students used Memrise in addition to the lesson and studied the targeted words in each unit through Memrise. The target words were asked to both groups as pretests and posttests before and after each unit. In the findings of the research, female students were more successful than male students in both groups. There is no significant difference between the posttest and pretest results of the control group. In the experimental group post-tests, most of the students answered almost all the words correctly.

Keywords: Learning, Mobile Assisted Language Learning, Mobile Applications, Vocabulary Learning, Language Learning

ÖZET
KELİME ÖĞRENMEDE MOBİL DESTEKLİ DİL ÖĞRENİMİNİN VERİMLİLİĞİ

Enes Atay

Yüksek Lisans, İngiliz Dili Eğitimi

Tez Danışmanı: Dr. Öğr. Üyesi Özlem ZABİTGİL GÜLSEREN

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Günümüz teknoloji dünyasında insanların bilgiye ulaşmaları oldukça kolay hale gelmiştir. Evlerimize kadar giren bilgisayarlar sayesinde tüm dünya tek bir ekran aracılığıyla ulaşılabilir olmuştur. Bilgiye ulaşmanın bu kadar kolay olması bilgi alışverişinin en yoğun yaşandığı eğitim dünyasını derinden etkileyecek gelişmelere kapı aralamıştır. Önce bilgisayar destekli öğrenme sistemleri geliştirilmiş ve uygulanmaya başlamıştır. Bilgisayarlar mobil hale gelip cep telefonlarının bilgisayar özelliği kazanmasıyla beraber mobil öğrenme hızla yayılmaya başlamıştır. Zamandan ve mekândan bağımsız kendi kendine öğrenme olanağı sunan mobil öğrenme, son zamanların en popüler öğrenme araçlarından biri haline gelmiştir. Bu sebeple mobil uygulamalar aracılığıyla yabancı dilde kelime öğrenme konusu araştırma alanı olarak seçilmiştir. Memrise kelime öğrenme uygulaması ile yarı-deneysel bir çalışma yapılmıştır. Bir üniversitenin İngilizce hazırlık sınıflarında okuyan öğrencilerden kontrol ve deney grupları oluşturulmuştur. Kontrol grubu öğrencilerinin bulunduğu sınıfta, ders normalde olduğu şekliyle işlenmeye devam etmiştir. Deney grubu öğrencileri ise, normal işlenen derse ek olarak Memrise uygulamasını kullanmışlardır ve her ünitede hedeflenen kelimeleri Memrise uygulaması üzerinden de çalışmışlardır. Hedef kelimeler, her ünite öncesi ve sonrasında, öntest ve son test olarak her iki gruba da uygulanmıştır. Araştırmanın sonucunda, kız öğrenciler her iki grupta da erkek öğrencilerden daha başarılı olmuşlardır. Kontrol grubu sontest ve öntest sonuçları arasında önemli bir fark bulunmamaktadır. Deney grubu son testlerde öğrencilerin çoğu neredeyse tüm kelimeleri doğru cevaplamışlardır.

Anahtar Kelimeler: Öğrenme, Mobil Destekli Dil Öğrenme, Mobil Uygulamalar, Kelime Öğrenme, Dil Öğrenme

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LIST OF ABBREVIATIONS

EBA: Eğitim Bilişim Ağı

EFL: English as a Foreign Language

GPS: Global Positioning System

ICT: Information Communication Technology

IOS: iPhone Operating System

IVR: Interactive Voice Response

L2: Second Language

MALL: Mobile Assisted Language Learning

MEB: Milli Eğitim Bakanlığı

MMS: Multimedia Messaging Service

PLATO: Programmed Logic for Automated Teaching Operations

SMS: Short Message Service

TESOL: Teaching English to Speakers of Other Languages

WAP: Wireless Application Protocol

CHAPTER I

INTRODUCTION

The twenty-first century world has gone through several technological developments. Education, for instance, experienced considerable transformation. Mobile applications constitute an important aspect of the changing learning tools. Developments in the field of informatics resulted in the frequent use of e-learning systems in traditional learning contexts and out-of-class learning environments. The use of mobile tools in educational practices has enabled the design of classroom context and digital context simultaneously. Mobile learning applications have gained a significant place in modern education and language education classrooms. It is important to study the influence of mobile learning applications in EFL learning, especially its impact on vocabulary learning.

Humankind has always strived to acquire knowledge because knowledge is a valuable asset. Knowledge has stood at the key point of events affecting humanity throughout history. Obtaining information happens through learning. The concept of learning and teaching has been evolving and changing for centuries. Information enters our lives from the first days of life until the last day of our lives. There is not a moment in human life without knowledge processing and learning. With the changing times it becomes all the more important in what way information and knowledge is acquired. That is why we should interrogate our teaching practices in the context of a changing technological era. The ability to access information quickly is important, and internet and mobile technologies enable instant access to global information systems. There is a strong relationship between mobile technologies and language learning.

The applications for the mobile phones and tablets appear more and more in the education world. Many of these applications are related to vocabulary learning, because vocabulary learning constitutes the backbone of language development. With the help of vocabulary learning applications in foreign language endeavors, learners

can learn vocabulary and develop foreign language competence on their own without time or space limitation.

In this study, the effect of learning vocabulary through mobile applications is investigated. For this purpose, an experimental and control group have been formed. An important vocabulary learning application, Memrise, was used to enable us to check the vocabulary learning of L2 learners. The findings of this research on vocabulary learning will shed light on the effect of mobile language learning applications in second language learning.

1.1. Background of the Problem

Learning and teaching foreign languages in Turkey has been a challenge for years. The foreign language systems and policies have been renewed to improve conditions of learning. However, these changes were not sufficient in solving the problem of learning English as a foreign language. Students, for example, have problems about learning new words in L2. It is a challenge for teachers to enable their students to learn new words and retain the vocabulary they have learnt. Having an extensive vocabulary repertoire requires hard work and commitment on the part of the language learner. Mobile learning systems may allow new possibilities for more effective vocabulary learning to take place.

Mobile learning has become a rapidly developing research and application area, and thus, it has grown to be popular in many educational contexts. Mobile learning has also come to the forefront in foreign language education, where technology plays a significant role. The mobile and interactive learning systems made learning easier, faster and more fun. Boundaries of classroom is stretched greatly. Mobile learning enables learning in different contexts and can save time and make multi-tasking possible through constant exposure to the language.

This study is carried out to find out the effect of mobile applications on vocabulary learning. A control and an experimental group are used to study efficiency of mobile applications on vocabulary retaining. The results of the research will provide valuable insights about engaging in effective vocabulary learning practices through mobile applications. Studying vocabulary learning applications such as MEMRISE will provide valuable information about the changing language learning experience.

1.2. Statement of the Problem

In the 21st century, technology became a significant element of the teaching and learning processes and we have witnessed the rise of computer-assisted language learning. Computer-assisted language learning aimed to improve foreign language learning efficacy. In time, mobile learning has emerged with the production of mobile phones similar to computer processing systems. Some consequences of these innovative systems are learning fast, saving time and abundant virtual practice, which is a must for language learning.

Today, learning English is essential because knowing English enables full participation in life. However, English learning continues to be a challenge in Turkey. Teachers try new strategies to teach English more effectively. Vocabulary knowledge is one of the cornerstones of English learning. However, inadequate vocabulary knowledge poses a problem for the language proficiency. Effective teaching strategies are experimented to increase vocabulary learning of L2 learners. There are several parameters that affect the process of acquisition and retention of words, such as motivation, study skills, stress, sleep quality and psychological factors among many others. Yet, effective teaching of words is an important consideration for long-term vocabulary learning.

The goal of this research is to study the influence of MEMRISE application in order to find out its impact on the attainment of L2 vocabulary. The study can provide implications about engaging in more effective teaching practices in light of changing technologies.

1.3. Purpose and Significance of the Study

Technological devices of our age play an important role especially in young people's lives. Mobile phones today are quite popular and they are ubiquitous technological devices. The place of mobile technology in people's lives is growing rapidly. The changing role of technology makes mobile applications an inevitable aspect of modern language teaching and learning. According to Ally (2009), mobile technology provides quick and instant access to any educational material and thus facilitates learning. Language learning is influenced greatly with the introduction of new technologies. Computers gave its place to cell phone applications due to its ease of portability.

Educators have become the pioneers of mobile devices by making it part of education. This made resources more available and made lessons more effective with no time and space constraints (Attewell, 2005: 8). Our life is busier than ever, thus mobile technologies offer us instant gratification within a short span of time. Going with the motto "time is money", many learners welcome mobile applications to old-fashioned book learning.

The aim of this study is to investigate the effect of Memrise mobile phone application. Memrise includes vocabulary learning activities on a leveling basis. Turkish students who are enrolled in a preparatory school of a university within the 18-21 age range and are at intermediate level constitute the participants of the study. This research will provide a better understanding of how and to what extent mobile learning method is effective in vocabulary learning process for L2 learners.

1.4. Research Questions

• What are the contributions of Memrise vocabulary learning application to vocabulary learning in comparison to traditional EFL teaching and learning practices?

• Are there any differences between genders in vocabulary learning outcomes considering traditional method versus Memrise mobile application?

• What are the differences in terms of outcomes for Memrise mobile application group versus traditional vocabulary learning group?

1.5. The Hypothesis of the Study

In the research, the effects of mobile applications on learning vocabulary in a foreign language was studied. According to the hypothesis, mobile applications for vocabulary learning in a foreign language will help and facilitate vocabulary learning in that language. The study aims to test this hypothesis if the application of the Memrise program will improve the vocabulary development of language learners.

1.6. The Limitations of the Study

The study lasted for the duration of two months. Four units were covered during this period and the experimental treatment was applied only to intermediate level students. Experiment and control groups consisted of 25 English preparatory school students. These limitations of the study can be tackled with longer term treatments with more language levels included.

This chapter introduced the topic of the thesis research, the next chapter covers the Literature Review of the thesis. Firstly, the concept of learning is elaborated and then computer aided learning and mobile learning is introduced.

CHAPTER II

LITERATURE REVIEW

Mobile language learning forms the basis of the research. For the purposes of this research, mobile language learning refers to formal or informal language learning experiences which occur as a result of using handheld or portable devices with language learning applications. Mobile devices include mobile phones and smartphones, media players such as iPods and tablets such as iPads. Portable, hand-held digital devices create novel experiences of learning. Mobile learning refers to any online learning experience with resources available at learners' place, time and pace of preference. Memrise application forms the central position of this inquiry which will be realized through hand held devices. Internet applications in smartphones and tablets create a new era of learning for technologically oriented learners. The following section relocates the concept of learning anew as a result of the changing definition of language learning in the technologically altered learning experience.

2.1. Concept of Learning

2.1.1. Learning

Learning is adopting new skills to adapt to the changing environment. While animals show instinctive behaviors for nutrition, security and reproduction, people meet their needs through interaction with their environment. As new ways of fulfilling human needs are adapted, more changes are needed because of continuity of life and change. As Vygotsky (1986) asserts an individual cannot be considered without his/her environment. An individual can only exist in connection to his/her social environment in which s/he is a part of. In order to meet the changing needs of environment, mankind continues to learn and adapt to new conditions. A large part of human behavior is learned behavior. For instance, learning to speak, gaining various attitudes and habits are associated with learning at different stages of life. Therefore, how our behaviors

are formed and how we behave in a changing context of technology needs to be inquired within the framework of the concept of learning. Howe (1980: 67) suggests that learning has an important function in providing the individual with the opportunity to benefit from his experiences. Learning is one of the most important and meaningful concepts of education process.

It is hard to find one definition of learning in the context of education world. Many researchers have argued that learning only has a limited functional definition which is insufficient in reflecting its multiplicity. Simple functional definitions are incomplete in describing a real learning process. That is why we need to reflect on different definitions of learning. There is no universal definition of learning accepted by all theorists, researchers, practitioners, and authors (Schunk, 2009: 171). The definition of learning varies according to different educators/researchers. One definition of learning envisions learning as a process of creating or changing behaviors by means of interactions in the environment, which do not include the behaviors, tendencies, maturation and transient conditions of the organism occurring with fatigue, drug, etc. effects (Bower and Hilgrad, 1981: 647). Another definition suggests that learning is a change that occurs not only in the growth process of humans but also during the specific periods of trends and competences (Gagne and Dick, 1983: 77). Yet another definition of learning, according to Woolfolk (1993), is the process of experience that causes permanent changes in knowledge and behavior. If the experience does not end up with permanent changes, it cannot be considered learning. Morgan (2006) on the other hand, sees learning as a continuous change in behavior that occurs as a result of repetition or experience. Similarly, Atkinson, et al., (2008: 4) envisions learning as a relatively continuous change resulting from practice in human behavior. Lastly, according to Lachman (1997: 477), learning can be perceived as a behavior change resulting from experience and a behavioral mapping of experiences. In other words, it can be defined as the effect of experience on behavior.

Observing a change in behavior is not sufficient to conclude that learning has occurred. Just as the existence of learning causes behavioral change, sudden and unexpected stimuli can also cause sudden and temporary changes in the behavior of the organism. Furthermore, behavior may change as a result of genetic factors as well (Tolman and Honzik, 1930: 220). Therefore, learning cannot be specified only in terms of changes in behavior. In other words, learning should occur as a result of interaction with

external stimuli and should include a process and a repetitive behavior. This is in line with the sociocultural theory of learning by Vygotsky (1986) who argues that it is hard to conceptualize individual divorced from his/her social context. Individual exists in connection to their environment. The interaction between individual and society is what determines their growth or development.

In general, learning is called permanent or trailing changes in organism behavior through repetition or experience. Learning is a process that involves selecting the stimuli that come with our sensory organs, creating meaningful ones, organizing, storing and recalling when necessary. Learning is a product of experience, it is permanent and leaves traces. To be called learning, a situation is expected to create a change in behavior in the organism (Gawronski and Houwer, 2014: 292). Temporary changes in our behaviors are not considered learning.

2.1.2. Concepts Related to Learning

The section of concepts related to learning explains the features that the learner must have in order to have a good learning. There are multiple factors affecting one's learning potential. Not all factors can be ideal, but the more we can set a desirable position, the more likely we are to succeed. Readiness is one of the factors related to learning. The organism must be biologically suitable for the learning in question. The individual who is confronted with learning status automatically exhibits the same behaviors (Winfred, 2002: 106). The biological readiness of the individual is highlighted as an important consideration for learning. Another factor is maturation. The organism becomes ready for specific learning experiences at different ages. As a result of maturation, the individual goes through a period that facilitates learning (Kosslyn and Rosenberg, 2003). Maturation is a prerequisite for the behavior to be gained by learning. Maturation is also associated with age and intelligence. This reminds us the stages of Piaget (1966) who argues that people go through different levels of cognitive development as they learn new things since birth. General excitement and anxiety is also a factor for learning. In order for learning to occur, the individual has to reach the appropriate level of stimulation. If the individual receives very little stimulants from the environment, it means that s/he is closed to the stimuli or the level of excitation is low. A moderate excitation and anxiety makes learning

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easier. Anxiety is an important factor for students with the moderate academic ability according to Morgan (2006), highlighting that certain levels of anxiety contributes to the learning whereas higher levels of this same anxiety debilitates the outcome of learning. Transfer of old experiences is still another factor. Each new learning is built on our previous learning. That is, when an individual has necessary experience or information to facilitate learning, learning becomes easier (Morgan, 2006). The environment is organized in such a way that simple information is introduced first to be followed by information that is more complex. Another important determining factor in the learning process is motivation. Significant motives stimulate and direct the organism to a specific purpose. An individual who does not have enough motivation to learn is internally closed to learning. Motivation for learning is what is needed from the learner when other conditions of education are addressed. In the study of Memrise application, competing with the other students through the application provided the motivation needed and the leveling system of the vocabulary exercises in the application was from simple to more complex, which facilitated learning. According to Grabbe (1986), attention is a limited human resource that an individual spends on achieving their goals and activating and maintaining cognitive processes. At the same time, attention is a state of consciousness that positively affects one's perception and learning. It is therefore a prerequisite for learning. Shunk (2009) defines attention as the process of selecting some of the many potential stimuli. The individual selects the stimuli that come to him/her through attention and includes them in the learning process. This shows the relevance of Constructivism in the learning act. Constructivism is an approach to learning and suggests that learner is a natural receptor, interpreter and constructor of knowledge. The main assumptions of the constructivist approach are the following. 1) Knowledge is gained through experience. 2) Learning is the personal interpretation of the world. 3) Learning is an active process in which meaning is developed on the basis of experience. 4) The meaning of conceptual development arises from negotiation, sharing different perspectives, and changes in internal meaning (representation) through cooperative learning. 5) Learning should be organized in a realistic way and testing should be integrated with the learning unit and should not be structured as a separate activity. (Pehlivan, 2010) According to the constructivist approach, each individual should be activated in the learning process and be responsible for their own learning. For this reason, teachers should include a

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variety of methods in classrooms and include modern teaching strategies more often such as problem solving learning, project based learning, cooperative learning and case study. In such a case, the role of the teacher will change towards being a guide, or an assistant that facilitates students' learning (Pehlivan, 2010). Students should be prepared for situations in business life they need to meet what they have learnt at school. A teacher who transfers the knowledge in the classical way has always been unsuccessful in raising students who think, criticize and interpret. So it is necessary to save the focus of the class from the teacher and make it student-centered with a more constructivist approach (Hanley, 2005). As an example of the constructivist approach, the Memrise application used in the research offers a learning model to support active learning and diversity of learning. Thus, the student will obtain reinforcement, overcome their deficiencies and fulfill the objectives of the constructivist approach by analyzing himself.

The method of learning affects learning potential significantly. For example, time learners devote to learning also affects the efficacy of learning. Learners use intermittent or collective work strategies for learning. Intermittent work strategy is a systematic repetition of the learning material several hours per day or week. Collective study, on the other hand, is a learning strategy where the learning material is studied in a compressed manner such as before the exam. Students who use this strategy are not interested in learning materials in the long term but care only about the result of the exam and thus, prepare only the night before the exam day (Morgan, 2006). Research indicates that learners who utilize intermittent strategies periodically, actually learn and remember for a longer period of time. Thus, intermittent learning strategies result in better learning outcomes. Students spend time in mobile applications intermittently to be able to reach upper levels in those applications and especially with Memrise application they confront repetition over and over. Another point of consideration is the structure of the learned topic. The structure of the subject should be suitable for learning. Education systems in general value learning by dividing information into digestable pieces. Learning by dividing into pieces helps the learner to be motivated, allowing a learner to experience a sense of accomplishment as parts of a material is learned (Morgan, 2006). Mobile applications allow flexibility in terms of the parts we want to focus on, and allows us to get back to the concepts we need further revision. Equally important is the active participation of the learner in the

learning process. The more active a learner is the more s/he is able to get out of the learning process. Listening, reading, writing and speaking are different examples of student participation for an active role. A good learning order for language skills can be listening first, to be followed by reading and later writing and then finally speaking (Raffini, 1996). Mobile applications are quite flexible in terms of determining what type of initiation students choose to practice and how. Providing continuous and immediate feedback is a must for successful learning process, and Memrise provides this fluid language experience that goes beyond the class hours. In order for a good learning to take place, the student is informed about whether or how much s/he has learnt. An immediate or timely notification of the learning outcome contributes to learning positively. If the student receives immediate feedback about what their deficiencies or mistakes are, they learn quickly by taking active steps as a remedy. A student who does not know how much s/he has learned, will not have the necessary awareness about their learning process (Morgan, 2006). Providing students ongoing feedback on their learning performance is a positive support for their learning progress. The student can be given feedback on daily basis in different exercises or by examining the exam results immediately, giving the answer key to the student or solving the questions in the classroom. Mobile applications like Memrise provides continuous opportunity for input as well as ongoing feedback possibilities, which supports language learning immensely.

In addition to the factors influencing learning, learning materials and environment are also influential in learning. Some of the features of the learning material can make learning easier or harder. Pronunciation is one the areas that language learners find challenging. Pronunciation is a factor that influences the speed of learning. Research has shown that easy-to-pronounce words are easier to learn than more complex words. In mobile-assisted language learning systems, it will be possible to learn hard-to-pronounce words by listening the words and phrases repeatedly at one's own pace. At the same time, it is one of the basic principles of mobile vocabulary learning applications to teach words in every stage of instruction. Perceptual discernibility of the learning material is another factor affecting learning. Generally, things that are easily distinguishable from the surrounding material are more quickly learned and remembered. Discernibility draws learners'attention and the more you pay attention to something, the easier it is to learn (Morgan, 2006). If the stimulus to be learned is

distinguishable from other stimuli, then the learning material is easily examined and understood. Semantic association of the learning material is another important factor influencing learning. We need to create connections among the pieces of the learning material to make learning stronger. For instance, the more relevant a subject is to an individual's previous knowledge or past experiences, the easier it is to learn. When a word is uttered, the learner may think of other words related to his/her life or past learnings. As these semantic associations increase, the learning potential also increases. Thus, a concept evokes another concept and associations are established in the mind of the learner and the possibility of learning increases (Morgan, 2006). Another factor, conceptual grouping, also assists the learning process. If we can group new information into associations, then it is easier to learn and remember it. Therefore, if concepts are grouped into steps, learning becomes easier (Raffini, 1996). With this in mind, it is important for the educator to highlight similarities and differences between concepts for assisting the learning process for his/her students. Mobile technologies allow to set up more and more connections between different language concepts. It provides a learning style that is suitable for the changing experience of language learning.

Learning styles are another significant concept related to learning. There are a lot of learning styles that a teacher needs to familiarize him/herself in order to better serve his/her students. Similarly, a learner should be aware of his/her learner style in order to enhance their learning potential. The concept of learning style emerged as a result of researchers investigating the differences between individuals. Observable and distinguishable behaviors are noted to gather clues about each individual. As Kaplan and Kies (1995: 31) indicates, the learning style that emerged as a natural trait is a concept that does not change easily throughout life but changes the life of the individual. Yet, students develop new styles of learning contributing to their learning and abandon dysfunctional learning styles that does not develop their learning endeavors. Thus, language educators should be aware of the learning styles of learners. According to Carroll (1998), as learners can come to learning situations with different learning styles, language educators need to familiarize themselves diverse learning styles. Mobile learning applications is the trendy learning style that more and more learners experiment. It is worthy of this research and thus we would like to inquire about individual learning outcomes as a result of mobile applications, looking at the

learning result of language learners will likely present valuable highlights for mobile language learning practices.

The concept of learning style was first introduced by Rita Dunn in 1960. Since then, continuous research and studies have been carried out to explore the concept. After the 1980s, research on learning style increased in number and quality. Several researchers have defined learning styles in different ways.

British researchers Honey and Mumford (1982: 221), suggest that learning style is preferences of individuals in learning activities. Thus, learning style is an individual approach to learning. In this concept, some students may prefer only one of the current learning trends, while others may have a strong preference for a variety of them. According to Dunn and Dunn (1986: 47), learning styles are unique to individuals because of individual learning preferences and each person has his/her own style of learning, such as a fingerprint. Each student uses separate and distinctive ways to get prepared, learn and remember new and difficult information. Diaz and Ryan (1999: 132), on the other hand, has defined the learning style as students' bringing together their ability and learning experiences into the process of acquiring knowledge. Students will have different learning experiences because of having different abilities and learning experiences which are unique to them. Another researcher Keefe (1990) defined learning style as sensory, cognitive and physiological behavioral characteristics determining how students learn, perceive, how they interact with the learning environment, and what their reactions are to the environment. Today, the learning environment has become more versatile and moved outside of the classroom environment. Nowadays, mobile classes have started to be created via e-learning. Gregorc (1985), who developed the Gregorc Style Classification, states that the learning style is external behavior, feature and condition, which are indicative of the soul and mental qualities. According to Jonassen and Grobowski (1993), Gregorc thinks that people should behave like themselves in order to determine their true style. People's interests and perceptions come up in comfortable environments. This proposition highlights the importance of the comfort of the learner. It is not an easy task to make all learners reveal their interests and perceptions simultaneously. Everyone should experience learning when they feel ready and it might extend beyond the walls of traditional classroom. This is especially the case for language learning experience. Thus, it will be indispensable to use mobile learning applications that

create alternative learning environment at one's own time. According to Butler (1987a: 128), based on the model developed by Gregorc in his work, the learning style is an umbrella-like general concept that sets out the differences of individual learning. Learners prefer different personal styles such as clothing, music preferences, color choices, friends and social groups, etc. We can determine the learning style of a student with the help of other personal styles. In other words, the individual style, which is formed by thoughts, experiences and emotions, sets the tone of the learning style (Butler, 1987b: 74). Each person's personality and lifestyle are unique to them, so are their learning styles. E-learning experiences go outside of the box and provide flexible and fluid learning. By means of e-learning, all learners are free to shape their own learning style and apply the most effective learning experience for them.

Recognition of different learning styles allows language educators to expand their notions of what counts as learning and educators can better serve their learners realizing their diverse needs. We can have a vision of alternative learning platforms in addition to old traditional classroom content.

Language educators pay attention to the cognitive, sensory and environmental learning areas of their students to activate effective learning experiences. Practicing matching learning styles to learners is an effective attempt to increase learning efficiency. There may be changes in the level of confidence, success, and anxiety of a person if they are studying in an area that is incompatible with their learning style. In addition, the learning style gives information why an individual learns differently from another person. This knowledge enables the individual to have power over their own learning process. It allows learner autonomy to be initiated. To be responsible for one's own learning is important to find out how he/she can learn. To achieve it, learners need to be aware of what their learning style is and utilize their learning style in their learning process. A learning not confined by the walls of classroom is a sure way of encouraging independent learning experience that can be triggered by autonomous learning of mobile applications.

2.2. Computer Aided Learning

2.2.1. Computer Aided Learning

The value of information has increased in the information age. With the dissemination of information, various developments have occurred in information technologies and learning has become much easier and more prevalent. Computer Aided Education is the transfer of instructional content or activities through software. Computer Aided Learning is an old concept in education. Therefore, the use of computers in the educational environment is often defined as computer-aided learning. Similarly, computer assisted learning is a teaching system which strengthens the teaching process and student motivation by combining students' learning speed and principles of self-learning.

It is important to note that the computer is not a substitute for the teacher, but a device to help the teacher to create learning-teaching activities and to provide interactions within the classroom. As the demand for education has increased, teachers serving these needs have become scarce. Thus, it has become necessary to use computer technology in education in order to respond to the emerging realities of today. Slowly, mobile learning opportunities become more and more relevant for language learning experience. They could be used in class or out-of-class in line with the needs of learners.

2.2.2. Computer-Assisted Language Learning (CALL)

With the rapid development of technology around the world and the phenomenon of globalization, all countries have been affected in many ways, especially in social and cultural life. We can also observe the consequences of this on the language used. Although educators have used computers in teaching foreign languages since the 1960s, they have become widespread in recent years. Although the use of computers in schools is not fully functional, the use of technology in foreign language teaching began much earlier (Lee, 2000). It surpasses the boundaries of language teaching classrooms.

Computer Assisted Language Learning is defined as the examination and investigation of computer applications for language teaching and learning. According to Egbert (2005), Computer Assisted Language Learning is any means of language learning

through ICT (Information Communication Technology). This definition reveals the large scope of technology assisted language learning.

The age of information we live in provides flexibility for educational practices via application of technological means. Technological devices and their applications constitute an alternative that appeals to various senses. Developing technological devices can offer different foreign language teaching experiences and various individual learning opportunities. Technology influences language learning and teaching in significant ways.

There are different definitions of computer assisted language learning, which was adopted in 1983 at the TESOL Congress. Computer Assisted Language Learning refers to the field of technology and language teaching and learning, although some revisions were proposed for the agreed period (Chapelle, 2001). Technology hopes to improve the language learning experience for the new technologically savvy generation. According to Bax and Chambers (2006: 113), technology should provide students with real learning opportunities and help them learn effectively, make language learning fun, help students become better language learners and make language teaching fun in a teaching-learning environment.

Advantages of computer-assisted language education are that it offers different options and materials for language learning, individualization of teaching as it can be adjusted according to learning speed, enables the student to provide their own control of the process and motivation, increases student success and makes education enjoyable and interesting. There are some limitations to computer assisted language learning. Baek (2008: 668) specified the main limitations and difficulties encountered in computer assisted foreign language education as financial difficulties, lack of computer hardware and software, lack of technical and theoretical knowledge about computers, resistance to technology use, adaptation to the curriculum, and inadequacy of learners in terms of computer literacy and computer-assisted language education. Most of the limitations were obviously addressed as a result of technological developments and prevalence.

In order to increase the quality of computer-aided foreign language teaching in the USA, units consisting of experts in foreign languages were established in order to produce computer software. According to Baek (2008: 669), language laboratories

occupy an important position in language teaching so as to complete individual and/or group studies and to provide an appropriate medium where learners have the opportunity to improve their productivity. In these language laboratories, learners have the opportunity to develop their language skills such as writing, listening and speaking interactively via audio-visual equipment.

2.2.3. History of Computer-Assisted Language Learning

Although computers have been used since the first half of the 20th century, they were not used for educational purposes until the 1960s. This is also when computer assisted language learning came into existence. After the 1970s computers have been used more for teaching purposes. According to Levy (1997), Computer Aided Language Learning started with the PLATO (Programmed Logic for Automated Teaching Operations) Project in 1960 but PLATO could not respond to the needs of every student, especially in speaking and understanding. PLATO aimed to meet the need for vocabulary and grammar exercises based on grammar translation. Consequently, it was not able to address the speaking needs of learners.

Computers developed rapidly in the early 1980s, both in educational environments and in people's homes. Computer Assisted Language Learning software also became more accessible on the market (Ittelson, 2000: 92). The emergence of inexpensive computer technology and mass storage media, including optical video discs and compact discs, has provided technology experts with good opportunities for new developments about better teaching environments. Compact discs are used to store large amounts of data, such as encyclopedias or moving pictures. CD-ROM, CD-I or video discs are the first materials that a student interested in researching a particular subject will use in computer assisted language learning centers. In order to learn about a subject, students can search electronic encyclopedias and watch related films afterward or related topics can be investigated. These learning centers have popularized computer assisted teaching and learning.

Computers have been used for language teaching for many years. The computer laboratory has become an integral part of foreign language programs in most educational institutions (Hardisty and Windeatt, 1989). Educators and learners took advantage of the convenience of computers. According to Warschauer and Healey

(1998: 63), the history of computer assisted language learning can be divided into three stages: Behavioral Computer Assisted Language Learning, Communicative Computer Assisted Language Learning, and Integrated Computer Assisted Language Learning. Each stage corresponds to a certain pedagogical approach. Behavioral computer assisted language learning was established in the late 1960s and was widely used in the 1970s. The audio language teaching method and repetition method were used in this period. The communicative computer assisted language learning period was in the 1980s. This period was behaviorist. The language teaching approach was rejected both theoretically and pedagogically. In this period, learning was viewed as a process of discovery, expression and development. Some software was developed. This period includes text reconstruction programs and simulations. What was important in communicative computer assisted language learning was not what was done with the computer, but what the students did with each other while working on the computer.

However, communicative computer assisted language learning has been criticized since the 1990s. This paved the way for the transition to integrated computer assisted language learning. New second language acquisition theories and socio-cognitive perspectives have influenced many teachers and encouraged them to use more social and student-centered methods. Approaches were developed to integrate the learners into environments where they are active in the process. Instead of visiting the computer labs once a week, they constantly attempt to integrate various technological learning skills in any time and any place.

2.2.4. Advantages of Computer-Assisted Language Learning

Many students in developing countries do not have sufficient financial means to live in the country where the target language is spoken or to improve their fluency in the target language. However, due to advances in technology, language learners now have the opportunity to access online discourse communities such as forums and blogs.

According to Kern (2006: 191), the advantages of computer assisted language learning are that it allows learners to work at their own pace, enables active participation, improves the quality of teaching methods and gives learners the opportunity to study and repeat after school hours. Learners have the opportunity to view their own progress through computers. Students can determine an approach according to their own

methods and learning styles and study accordingly. Students who are able to follow their progress can guide their study pace.

Kung (2002) stated that teachers have begun to recognize that the use of computer technology and embedded language learning programs can provide opportunities to develop independent and cooperative learning contexts and provide students with new language experiences. Computer usage in language learning classes has the potential to enable learners in both individual and group studies. Wang (2008: 32) emphasized that computer assisted language learning programs can offer language learners more freedom than traditional classes. Language learners have the opportunity to study whenever and wherever they want. Computer assisted language learning software can provide an incredible incentive for language learning. With different options, it can promote interaction between students and teachers. At the same time, the possibility of learning independent from the physical environment can encourage students to learn more.

2.2.5. Disadvantages of Computer-Assisted Language Learning

Although computer assisted language learning has many advantages, there are also disadvantages. The fact that the cost of computers is higher than other learning methods is the biggest obstacle to this teaching system. In addition, computers cannot cope with any problems on their own. They require human help. Likewise, in order to develop a computerized language learning system, it is necessary to train people who are open to technology and who can interpret it. Wang (2008: 32) argued that the main issue is financial problems in providing the equipment needed to implement computer aided language learning and continuous updates make the problem more serious. Computers cannot cope with unpredictable cases due to technological constraints, while educators can cope with such situations. Both educators and learners need training in order not to prevent failure of the teaching and learning process and to use computers effectively. Lee (2000) listed the limitations of computer aided language learning as monetary barriers, use of computer hardware and software, technical and theoretical expertise and adoption of technology.

Kenning and Kenning (1983) stated that reading from a screen can be more strenuous than from a written text. Still many people today prefer paper and pencil instead of

reading from the screen because spending long hours in front of a computer can be tiring for the eyes and using multiple sensory organs in the learning process may make learning more permanent. In addition, the use of books and notebooks, tangible concrete objects, is preferable to people than the virtual environment where information flows rapidly.

Kern (2006: 192) emphasized that in technology and language learning, there are some complex cases that force educators to analyze activities based on what people do with technology, how they do it, and what it means to them. Learners who are not so familiar with technological developments avoid computer-aided education more than today's youth. Although these cases threaten computer assisted language learning, its overall success depends entirely on who uses it and how they take advantage of it.

On the other hand, in recent years, computers are ubiquitous and software offers many more opportunities through the internet and rapidly developing technology. Therefore, the aforementioned disadvantages have been mostly resolved.

2.3. Mobile Learning

In terms of mobile technologies, the term "mobile" is often attributed to devices that are portable and personal. Mobile technologies have become an indispensable part of most people's lives these days. Nowadays people interact with each other through mobile devices.

Mobile tools are developing rapidly and in parallel with this development, mobile learning environments are being created. Mobile learning is quite different from traditional learning methods. For learners, it creates opportunities that allow individual learning to continue outside the classroom with no time and space constraints. The learner's mobility creates an ever-changing environment. Mobile learning supports (1) individual learning in which students can determine their learning speed, (2) situational learning involving a real context, (3) collaborative learning in which individuals learn by working in groups and helping each other, and (4) non-formal learning approaches in addition to the formal learning system (Naismith and Corlett, 2006). In today's world where almost everyone has mobile devices, mobile devices not only support learning, but also enable learners to communicate with each other through social networks and other means of communication. Mobile devices constantly connect the virtual and real

worlds and allow individuals to access information by participating in networks. In addition, support services are provided to learners through mobile tools and applications. Mobile learning makes access to learning content possible through digital books or networks, and thus enriches the learning process, learning resources, learning opportunities and experiences. It enables the continuation of the learning practice without interruption.

In line with the development of mobile technologies in the educational world, mobile applications with educational content have also developed. One of the most important developments in the concept of learning is learning vocabulary in a foreign language through mobile applications. The applications can easily be downloaded from application markets and are then ready to use. Mobile learning can motivate students to develop foreign language skills as it provides a rich, informal, contextual and ubiquitous learning environment.

2.3.1. Definitions of Mobile Learning

As it is a broad term, there is no accepted definition of mobile learning. Various educational experts have defined mobile learning in different ways. Some experts place more emphasis on the technological side of mobile learning, while some experts place more emphasis on the philosophical aims.

According to Geddes (2004), mobile learning is the acquisition of an information or skill by using mobile technologies and the formation of behavior change through them. Another definition by Traxler (2005: 5) is that mobile learning is the preparation of any training with tools that can be used alone or predominantly in the palm of your hand. Quinn (2011), on the other hand, stated that mobile learning is the intersection of mobile computers and e-learning. E-learning is independent of place and time as it enables access to resources from anywhere, has strong search capacity and rich interaction level. It strongly supports effective learning and is based on performance evaluation. O'Malley et al. (2005) viewed mobile learning as the ability of the learner to access information anywhere using the advantages of mobile technologies. Yet another definition is that mobile learning is a combination of d-learning (distance learning) and e-learning (Georgiev, Georgieva and Smrikarov, 2004).

As can be seen from the above definitions, the general idea for mobile learning is that learning continues at any time and any place without a cabled network connection. In addition, the ability to connect mobile devices with other computer equipment, to share educational information and to exchange information between teachers and students are among its significant characteristics.

2.3.2. Benefits and Challenges of Mobile Learning

There are numerous benefits of mobile learning. Personalized education and no space and time boundaries make it a popular concept in the education world. Mobile learning does not need much hardware equipment. Therefore, it is easy to carry. Besides, no wired connection is required. Access to the internet is easy thanks to mobile internet offered by telecommunication companies at affordable prices. Another benefit is that since a mobile device belongs to the person, they can keep track of their own learning process. Thus, mobile devices individualize learning. In addition, mobile applications have colorful and remarkable interfaces and they aim to teach through games, which make learning more permanent. They also keep motivation high thanks to instant scoring and feedback.

However, mobile learning brings various disadvantages with it. One disadvantage is the ownership of the device and the resulting cost. For many students, it might be hard to afford a mobile tool. Short battery life and reliability are also among common problems. Another disadvantage is that mobile learning becomes more difficult with devices dedicated only to a particular job. Lessons can sometimes be boring. However, learning and entertainment are targeted at the same time with new applications (Kukulska and Hulme, 2009: 160). Another challenge in mobile learning is that there may be a lack of concentration due to other features and applications on the phone, such as receiving messages, incoming calls and notifications while studying with the mobile phone. Table 2.1 briefly presents the benefits and challenges of mobile learning.

Table 2.1: Benefits and Challenges of Mobile Learning

Benefits	Challenges
Cheaper than laptops and desktops	Connection
Continuous learning	Battery life
No space limitations	Screen size
New opportunities for remote areas	File formats
Pleasant learning process	Limited memory, computing power
Individualized learning	Assurance
Alternative learning environment	Broadband cost
Reaching poor students	Inadequate learning design
Bringing one's own device	Maintenance

Source: (Asabere, 2013: 25)

2.3.3. Current Mobile Usage Statistics

Towards the end of January, the We Are Social 2018 report was published. The report published by We Are Social and Hootsuite identified the most recent world internet usage statistics and social media statistics.

Figure 2.1: Internet Usage Tools

Source: (https://dijilopedi.com/2018-internet-kullanimi-ve-sosyal-medya-istatistikleri/)
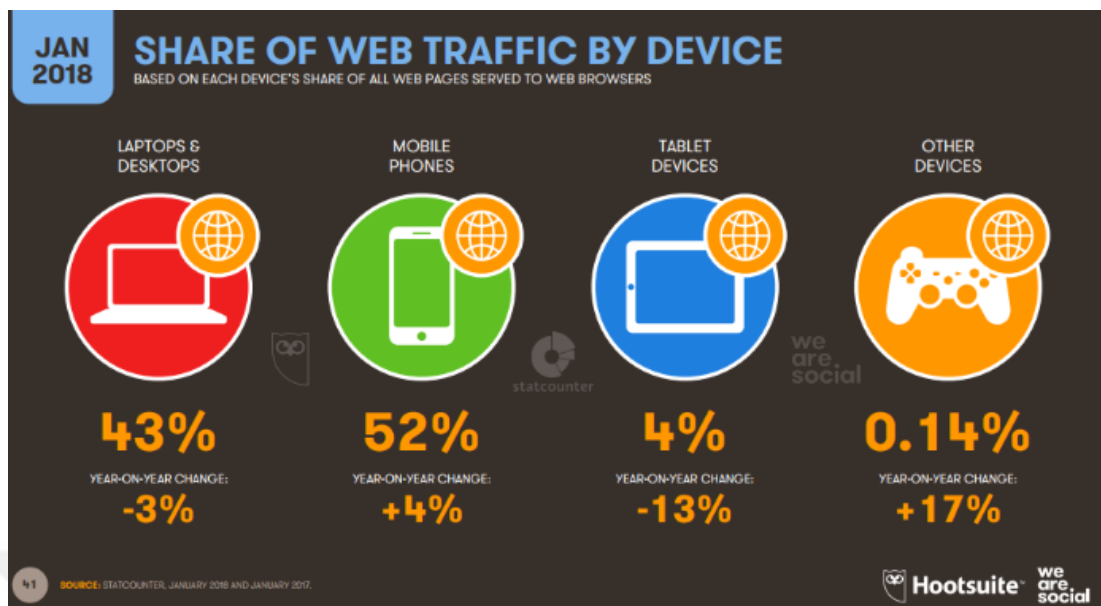
When the internet usage statistics shown in Figure 2.1 are examined, it is seen that mobile usage has increased in recent years and computer usage has decreased.

Figure 2.2: Mobile User Statistics

Source: (https://dijilopedi.com/2018-internet-kullanimi-ve-sosyal-medya-istatistikleri/)
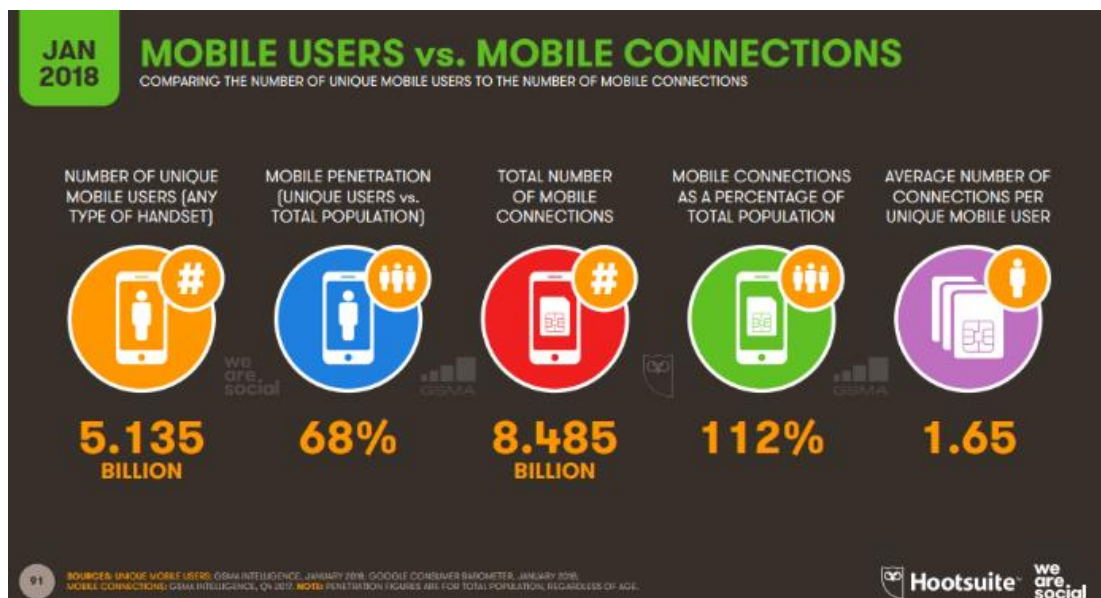
The number of mobile users is increasing every year. When we look at the 2018 mobile user statistics shown in Figure 2.2, we can see that the number of mobile users is 5.1 billion. As can be seen, this ratio corresponds to 68% of the world's population.

Figure 2.3: Mobile Usage Traffic

Source: (https://dijilopedi.com/2018-internet-kullanimi-ve-sosyal-medya-istatistikleri/)

Figure 2.3 shows that mobile usage rates have increased continuously. Over the years, the mobile share has increased in web traffic. While the mobile share of web traffic in 2009 was not even 1%, as of 2017 half of website traffic was provided by mobile devices.
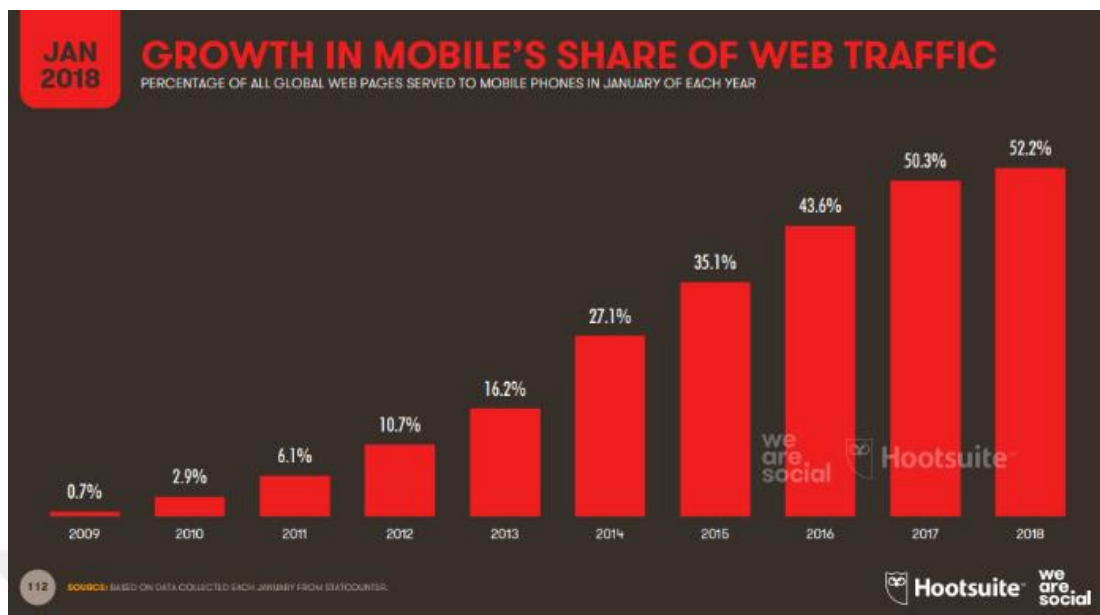
2.3.4. Mobile Assisted Language Learning (MALL)

Introduction of mobile phones and tablets in language teaching and learning is one of the recent changes in education. Learners and educators take advantage of mobile devices in language education practices. Thus, the concept of mobile assisted language learning (MALL) has emerged in academic circles.

Whenever an audio-visual device or information technology emerged, there has always been an interest to use it in language learning. As with computer assisted foreign language education, mobile assisted foreign language learning has gained momentum in parallel with the high speed of mobile learning. Mobile assisted foreign language learning accelerated in the 2004-2005 academic year owing to some universities in the US offering free iPods to their students (Chinnery, 2006: 12) and the unique mobile device functionality seen on Apple's iPhone in 2007 (Godwin-Jones, 2011: 7).

Mobile assisted language learning has been an integral part of higher education, with the possibility of lightweight handheld devices that increasingly allow 'anywhere and anytime' learning. Mobile assisted language learning was once thought to be a subfield of computer assisted language learning. Due to the rapid evolution of mobile devices such as mobile phones and tablets, it has developed as a new study field. Mobile assisted language learning is the use of mobile and ubiquitous devices in the language field, particularly in contexts where the portability of these devices provides certain benefits (Kukulska-Hulme, 2013). These devices can actually become efficient tools, and language learning materials can be delivered to students, despite having some drawbacks such as screen size and low computational power. According to Kukulska-Hulme and Shield (2008: 275), it is thought that language learning will become more personal and informal.

In the field of mobile assisted language learning, scientific research is carried out using qualitative and quantitative approaches. Other studies in this field continue in two dimensions which are "content-based" (development of activity and learning materials) and "design-based" (issues related to developing and designing learning materials for mobile devices) (Kukulska-Hulme and Shield, 2008: 275). In the field of English teaching, Hogg and Hockley (2013: 196) criticized the reductionist tendency to match mobile learning with the use of smartphone and tablet computers that evoke the use of ready-made content outside the classroom. Hogg and Hockley (2013: 196) continued with the suggestion that mobile technologies can be integrated into formal education both inside and outside the classroom. Therefore, in order to take advantage of the potential of mobile technologies in language education, one should not be tied only to the idea that mobile learning can be "anytime, anywhere" with pre-installed applications on devices. We should also consider how to use the activities aimed at improving language skills and language acquisition.

On the other hand, the important thing is not what technology or media is used, but how it is used. As with any technology, it is not the mobile technology itself that enhances teaching or learning, but how we make use of it. Mobile technology is not a "teacher", but an educational tool. In addition, it is necessary to distinguish between mobile learning activities where language students consume content and mobile learning activities where they use the language (Dudeney & Hockley, 2012: 537; Hogg

and Hockley, 2013: 196). Otherwise, only "mobile technology" would be exploited instead of the "traditional methods" used previously.

2.3.5. Research about Mobile Applications in Language Learning

Today, the most widely used mobile language learning devices include mobile phones, tablet computers, pocket computers, digital voice recorders and personal digital assistants. Like computers, mobile learning devices work with operating systems such as Android, IOS, Windows, Blackberry OS, Linux and Symbian. Among the most widely used mobile learning devices today are the iPhone, iPad and iPod Touch that work with IOS, as well as other smartphones and tablets supported by Android and Windows operating systems. People and institutions who develop mobile learning applications use special programming tools, and generally present the applications they produce in the form of different applications that can work on both IOS and Android operating systems. The most common delivery environments in mobile applications are e-mail, messages (SMS, MMS), audio and video broadcasts (podcasting), interactive voice response (IVR), graphics (mobile camera), animation, GPS and Mobile Web (WAP).

As with other technology-supported language learning environments, mobile learning environments can be face-to-face, remote, and online (Chinnery, 2006: 13). The studies in the field of mobile language learning mostly focus on vocabulary teaching with SMS and MMS messages on mobile phones. However, there are many mobile assisted language teaching applications that can be used on both mobile phones and tablet computers. The largest app vendors, the Apple App Store and Google Play, offer over 800,000 mobile device apps. There are as many as 1000 applications for learning languages. The number of downloads in 2013 were around 82 billion and it was estimated that this number would be 200 billion in 2017 (MobiThinking Report, May, 2013).

Due to various disciplinary incidents related to the use of mobile phones in primary and secondary schools, the Turkish Ministry of National Education has restricted the use of mobile phones and similar technological information tools by students in educational institutions (MEB, 2007a). Having defined information tools as mobile phones and cameras with the ability to record audio and video; computers, internet,

data storage devices, pagers and similar devices used in collecting, storing, designing, processing, transferring and reproducing information, MEB (2007b) stated that students should use informatics tools in line with personal, social and educational benefits. Therefore, there are problems with using mobile phones in schools for mobile learning. Since mobile learning can occur anywhere and anytime via mobile devices, this problem can be overcome by supporting and encouraging out-of-class learning activities within formal education.

Although mobile devices are restricted by the Turkish Ministry of National Education, tablet computers provided by the ministry to students within the scope of FATİH Project (2012) can be integrated with foreign language learning, especially English courses. The ministry and some publishers provide e-content (EBA) free of charge. The students can utilize the content anywhere and anytime. Teachers can enable their students to do out-of-class activities via tablets and e-content. The project was prepared in addition to course books and workbooks in the schools where the books of foreign publishers are used. The aim of the project was to provide holistic learning by introducing technology in addition to traditional learning methods.

2.3.6. Research about the Effect of Mobile Applications on Vocabulary Learning

Vocabulary learning research through mobile applications is made possible by the introduction of technology to our homes and thus by the use of technological developments in the educational world. With the use of technological materials in education, researchers have started studying mobile learning applications and mobile vocabulary learning applications have been developed.

Learning vocabulary through mobile applications involves learning words in a foreign language, sometimes along with their pronunciation and usages. These applications can be installed on mobile phones and tablet computers and involve a systematic process from simple words to difficult ones. This coincides with the "simple to complex" principle in education.

In many parts of the world, language teaching and learning cannot be carried out properly due to the large number of students in classrooms. With the development of technology, these applications, which are the most significant development that

facilitates self-learning in the field of foreign languages, can be downloaded from application markets for IOS and Android systems.

Today, some of the most downloaded, that is the most popular foreign language vocabulary learning applications, are as follows;

Duolingo; This is an application composed of visual, audio and written tests, which help you develop yourself with a subject-based method. Users can also see the progress of their friends. Duolingo is pretty good for motivating the user.

English Central; With over 13,000 videos, this app helps you learn vocabulary and also practice your pronunciation skills through instant feedback. After watching a video, users read the given part aloud into the microphone. The application detects and tells you of any pronunciation mistakes. You can also get one-to-one English language lessons from professional tutors 24/7.

Quizlet; With many different modes, Quizlet "learn mode" helps user prepare for exams. "Write mode" allows you to test how well you remember words you have learned. Quizlet, which also offers the pronunciation of words in 18 different languages, gives you a catchy learning opportunity.

Memrise; Memrise, which won the best application award from Google Play in 2017, is in a different position from other foreign language learning applications thanks to its gamification technique. Memrise, which teaches language in a story, allows you to improve your language by playing games. As you go through the story in which you serve as an agent, you notice that you are developing your language.

Learning a foreign language has become a necessity nowadays. As such, many language learning applications have been developed with the spread of smart phone usage. Among many other applications, however, Memrise language learning application managed to outperform its competitors and has become one of the most downloaded language learning applications both on Google Play and the App Store.

Memrise is a comprehensive application that includes not only English but also different languages. Other languages supported by Memrise include Chinese, English, French, German, Italian, Japanese, Brazilian Portuguese, Russian and Mexican Spanish.

There are different features that differentiate the Memrise language learning application from other applications. At the very beginning, the application not only teaches the language but also teaches the users the history, geography, culture, scientific studies and other factors in relation to the country. So if you want to learn English through this application you not only learn the language but also the culture, history and geographical characteristics of Britain. The application, which offers a very different service in this respect, aims to benefit the users in many ways.

Memrise language learning application enables you to learn the most commonly used sentence patterns in daily life, how to pronounce these sentences and how to use them in sentences. You can also watch videos prepared by the people of a country to get an idea of how they speak.

One of the best features of the Memrise application is the offline mode so you do not have to have an Internet connection to benefit from the application. You can also get the most out of this application without internet access.

Memrise language learning application is among the educational apps on Google Play and App Store.

2.4. Conclusion

Learning is acquiring new skills of the organism in order to adapt to the environment. The computer assisted learning that emerged after the invention of computers has been effective for a long time. While advances in computer assisted learning continued, mobile phones and tablets, a kind of mobile computer, were invented. Computer assisted learning gave its place to mobile technology. With mobile devices, the individual can now access the information they need without time and space constraints and realize learning in their own way. With alternative applications offered to the individual providing learning on a wide range of subjects, the individual has become self-improving. Mobile devices and applications offer the opportunity to create a unique education model for the individual. The educational contents in question should be developed and supported for the individual.

In this chapter, the concept of learning is is explained and computer aided learning and mobile learning is introduced. The next chapter is the methodology of the study.

CHAPTER III

METHODOLOGY

3.1. Introduction

In recent years, mobile devices occupy an important place in our lives. Mobile devices may contain applications that make our lives easier and they offer activities ranging from entertainment to learning, practical solution offers and hobbies. Language learning through mobile applications is one of those activities. Memrise, which is a mobile language learning application, is examined as a research topic and the contribution of the application to the students' vocabulary learning will be evaluated. The method of the study, design of the research, data collection tools and the characteristics of the participants will be mentioned.

3.2. Research Design and Participants

In the study, Memrise foreign language teaching application was examined. A mixed approach method that includes quantitative and qualitative elements was adopted.

The technique is based on a quasi-experimental research design in order to observe success more clearly. The experimental group received mobile assisted vocabulary instruction in addition to regular classroom instruction, whereas the control group followed regular classroom instruction from the teacher. To compare students' vocabulary development, pre-tests and post-tests were applied to both groups separately for each unit at the beginning and end of the eight-week instruction. In order to support and enrich students' vocabulary learning, pronunciations of each word and expressions were added to the application and stronger teaching was offered to the experimental group.

The test results provided both qualitative and quantitative data. Ideas were obtained about the Memrise application and general ideas were put forward about foreign language vocabulary teaching applications.

As can be seen in Table 3.1, 54% of the participants were female and 46% were male. In both groups, the age range was almost equal. There were 15 participants (30%) in the 18-year age group, 18 participants (36%) in the 19-year age group, 11 participants (22%) in the 20-year age group, and 6 participants (12%) in the 21-year age group.

The age and gender distributions of the experimental and control groups are listed in more detail in Table 3.1.

Table 3.1: Age Group and Gender Distribution of the Participants

Gender	Experimental Group		Control Group		All Participants	
	Number	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Female	13	52%	14	56%	27	54%
Male	12	48%	11	44%	23	46%
Total	25	100%	25	100%	50	100%
Age						
18	7	28%	8	32%	15	30%
19	9	36%	9	36%	18	36%
20	6	24%	5	20%	11	22%
21	3	12%	3	12%	6	12%
Total	25	100%	25	100%	50	100%

- Experimental and control groups were formed and each group included 25 participants.

- The participants in both groups were preparatory year students learning English language at a public university.

- Experimental group and control group were given pre-tests and post-tests consisting of 50 words or phrases each.

- The study covered units 5, 6, 7 and 8 in the speakout intermediate level course book.

- The study lasted 2 months and was conducted on a total of 4 units.

- All participants in the experimental and control groups used smartphones.

3.3. Data Collection Instruments

The data were collected by taking the results of pre-tests and post-tests applied to 2 different classes. For the word test, 50 words and expressions were selected in 4 units and applied to control and experimental groups of 25 students each.

The targeted words in the units were prepared in packs in the Memrise application. Prior to each unit, a pre-test was applied to the control and experimental groups asking about the targeted words and expressions. The control group continued classes as they did before. In the experimental group, the Memrise application was used in addition to the regular course instruction.

At the end of the unit, both groups were applied a post-test by changing the order of the same words in the pre-test.

The students in the experimental group spent part of the course hours each week studying vocabulary activities in the Memrise application, and also the time and learning levels of the students were followed by the teacher week by week through the application.

3.4. Data Analysis

The data obtained in the study were analyzed by two different methods. In this study, not only quantitative but also qualitative data were collected and analyzed. In the quantitative part, data analysis was compared and evaluated quantitatively by measuring the vocabulary learning rates through pre-tests and post-tests. In the quantitative analysis, vocabulary knowledge analysis was examined in pieces and the general situation of the students was determined. At the same time by examining the results of the post-tests, the aim was to verify the success of the application quantitatively. The results were analyzed by using the GraphPad Prism program with

the multiple t test of two-way ANOVA, applying the Holm-Sidak method. In addition, a qualitative evaluation was carried out to support the quantitative evaluation. Qualitative evaluations were made by taking into consideration the character length of the word items and the periods spent in practice.

3.5. Conclusion

This chapter covers the methodology of the study. Research design and participants and data collection instruments are introduced. Data analysis is explained. The following chapter presents the findings obtained and discusses advantages and risks of Memrise application.

CHAPTER IV

FINDINGS

4.1. Introduction

In this section, the findings and the results of the study are presented. The effect of learning vocabulary through the Memrise mobile application is discussed.

Preparatory year students from a public university in Istanbul were evaluated.

Quantitative and qualitative data will be analyzed by comparing the control group with the experimental group that used the Memrise application.

4.2. Findings

4.2.1. Qualitative Findings

When the experimental and control groups are examined separately or together, according to the findings;

All students use smartphones with mobile applications. The use of smartphones increased both the use and variety of applications. With the frequent use of applications on smartphones by the students, the efficiency obtained from the Memrise application increased and became visible.

The experimental and control groups in the research consisted of 25 students each. The Memrise application was installed on the phones of all 25 students in the experimental group class. The course units were covered and checked in both classes. The number of students is sufficient for the provability of the research.

In the experimental and control classes, the number of female and male students is close to each other. According to the examinations made in the experimental group, female students used the Memrise application more intensively.

When the general success was examined, it was determined that female students were better than male students in pre-tests and post-tests. Females slightly outnumbered males, but it was not significant.

In the findings obtained according to the age groups of the students, subjects of the research are in the 18-21 age range. The subject age range is within the age range of individuals using mobile phones and related applications extensively.

Each test consisted of 50 words. The pre-test and post-test for each unit had the same words, but in a different order. The study was carried out simultaneously for the course and Memrise application. This reveals the reflections of a virtual application in real life.

In the experimental group, none of the students who participated in the tests in all units were able to answer the entire 50-word test in the pre-tests. While some of the students could not answer any items correctly, the majority of them were able to answer only a few words correctly.

None of the students in the control group answered the entire 50-word test correctly in the pre-tests. Some of the students showed that they had more vocabulary knowledge than the experimental group.

After the use of Memrise in the experimental group, a post-test was applied to the students after each unit. The post-test word items and the pre-test items were identical but in a different order.

When the findings obtained from all units are evaluated;

The post-test results applied to the experimental group contain quite different findings than the pre-test results. Most of the students answered almost all of the given words correctly. In the post-tests, there were no students who could not answer any words correctly.

In the control group, the words answered correctly by the students who participated in the post-tests seem to have almost the same structure as the pre-tests. The number of correct answers given by the control group students to the post-test is the same as the number of pre-test answers, and there are also students who could not answer any items correctly.

When the unit results of the experimental and control groups were compared, the control group showed more successful results than the experimental group in the pre-tests, yet it was not significant. When the post-tests were applied, it was observed that the experimental group using the Memrise application made significant progress compared to the control group.

According to the findings obtained from the 5th, 6th, 7th and 8th unit test results of the experimental and control groups, the experimental group using Memrise was less successful than the control group according to the pre-test results. As a result of using the Memrise application, the overall success of the experimental group was much higher than the control group. When all students in the control and experimental groups were evaluated, the overall success of female students was higher than male students. It was also observed that female students spent more time in Memrise practice than male students. As a result, it was found that female students in the experimental group were more successful than male students.

When the tests applied to the experimental and control groups were taken into consideration, long and complex expressions were answered incorrectly by almost all students in the pre-test and relatively correct answers were given to short words. However, in the experimental group, such expressions which could not be answered in the pre-test were mostly answered correctly in the post-test. In the control group, the words and expressions that were difficult to learn were often answered incorrectly in the pre-test, and often incorrectly answered in the post-test as well, and no progress was made in learning such words and expressions.

In general, the Memrise application attracted attention among students and an increase in vocabulary knowledge was observed according to the post-test results of the experimental group. In the control group, there is no significant increase in success at the end of the units.

4.2.2. Quantitative Findings

According to the quantitative findings obtained from the research, the success rates for participants in all units are shown in Chart 4.1.

Chart 4.1: All Participants' Pre-test Results
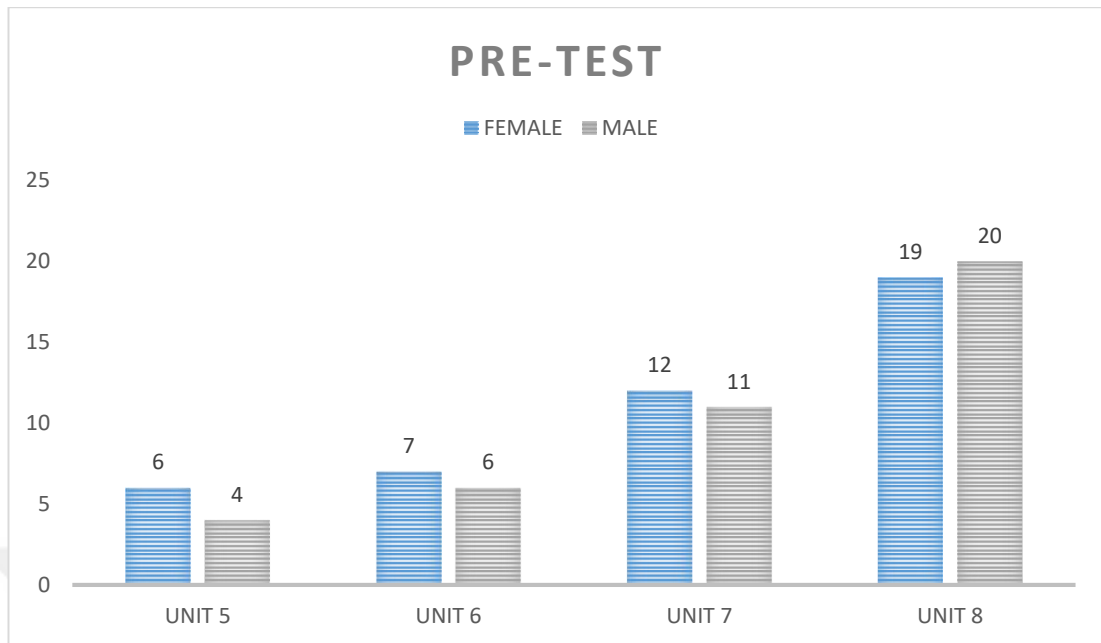
According to the information obtained from Chart 4.1, female students were more successful than male students on the pre-tests. Male students were more successful than female students only in the 8th unit. When the general success average is considered, it is seen that female students had 22% success in all units. Male students showed 20% success in all units. Success increased moving from unit 5 to 8. For this case, it can be said that the success of the students increased with the knowledge of vocabulary gained from the past units and with interest in the Memrise application.
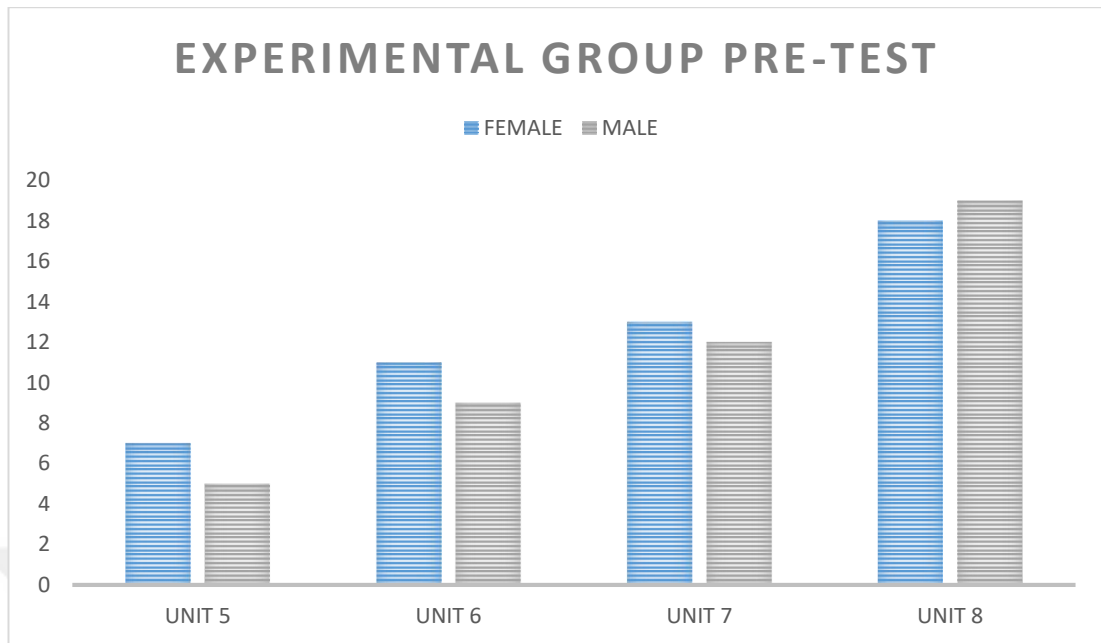
Chart 4.2: Control Group Pre-test Results
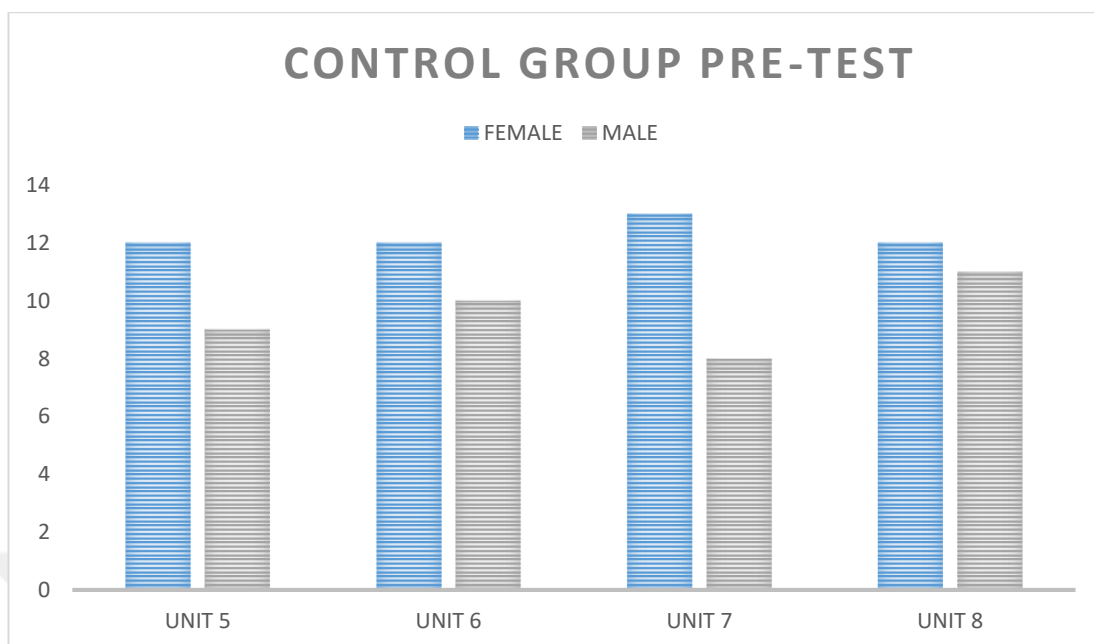
The pre-test results of the control group are shown in Chart 4.2. According to Chart 4.2, the overall success average of the 25 participants in the control group was higher than the experimental group. Although the average success of the control group in unit 5 and unit 6 was higher than the experimental group in the pre-test, a significant increase was observed in each unit in the experimental group compared to the previous one when the distributions in Chart 4.2 and the distributions in Chart 4.1 are compared. But there was no regular increase in success during the units.

When the pre-test results of the control group are evaluated according to gender, the average success of females was higher than males in each unit. Accordingly, the average success of females in all tests was 24%, while the average success of males was 19%.

The Memrise application was not introduced to the experimental group when the first pre-test was performed. In this respect, it can be said that the control group showed more successful results, but the increasing success of the experimental group that started to use the Memrise application made the experimental group more successful on average for all units, according to Chart 4.3.

Chart 4.3: Experimental Group Pre-test Results

Generally speaking, the tendency for increasing success was observed in the experimental group using the Memrise application in the pre-test results, while the general success trend was not observed in the pre-tests applied in the control group.

After the application of Memrise application to the participants in the experimental group, a post-test was applied at the end of each unit. Four separate post-tests, each containing 50 word items, were applied.

The post-test results applied to the experimental group are shown in Chart 4.4.

Chart 4.4: Experimental Group Post-test Results

EXPERIMENTAL GROUP POST-TEST
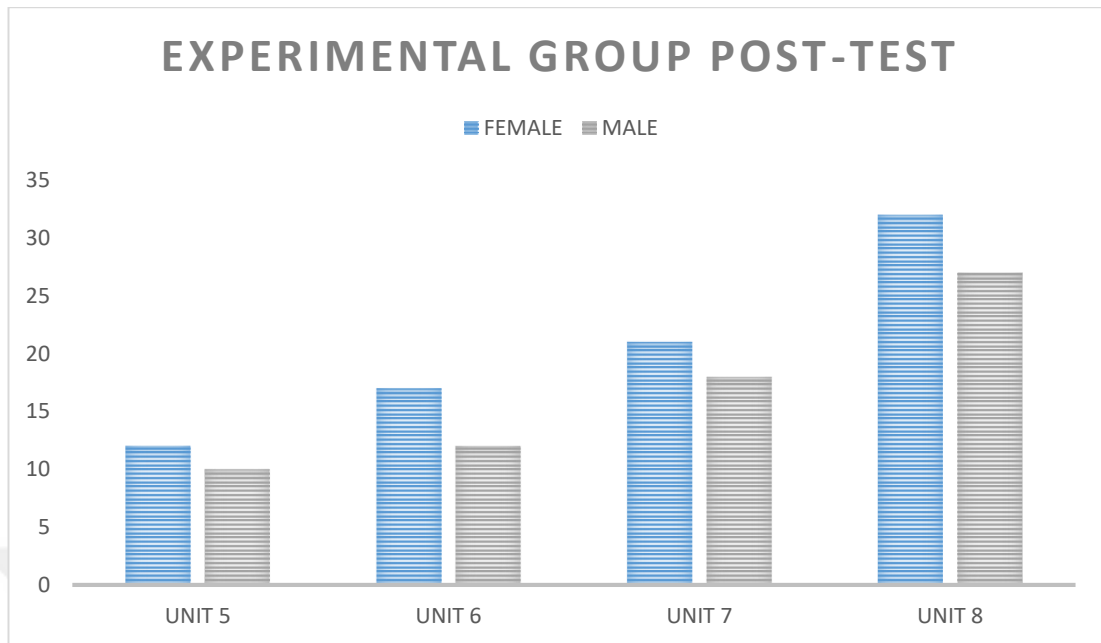
According to the experimental group post-test results, female participants were more successful than male participants in all units. According to this, the success rate for female participants was 40% and the success rate for male participants was 33%. When the comparison is made according to the pre-test results, the success rate of females increased by 55% and the success rate of males increased by 60%. It is observed that the success rate increased considerably after the application of Memrise.

According to the distributions in Chart 4.4, it is observed that the success average tends to increase from unit 5 to unit 8. It can be said that the Memrise application positively affects students' vocabulary.

In Chart 4.5, the results of the post-tests for the control group are examined.

Chart 4.5: Control Group Post-test Results
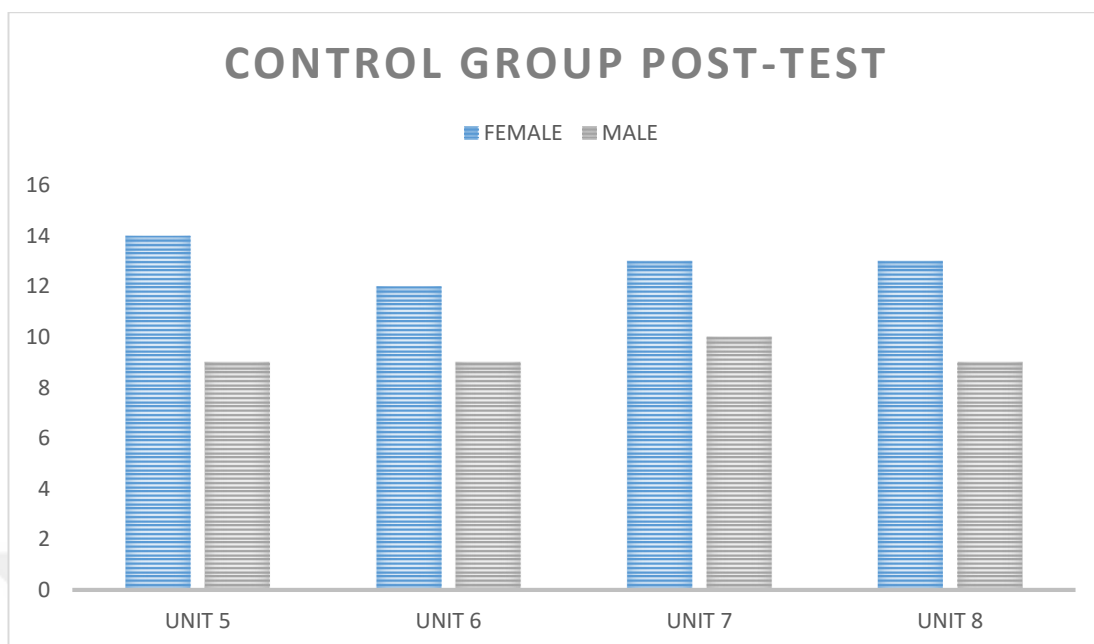
According to the findings in Chart 4.5, the success rate of female participants is higher than male participants. The success rate of females is 26% and the success rate of males is 19%. Accordingly, in the control group, 9% success increase was observed for females in the post-tests, while the pre-test and post-test success remained unchanged at 19% for males.

In the post-test results of the control group, the success of the female participants increased while the success of the male participants remained the same. There may be many factors that do not change the increase in achievement, but one of the factors can be considered as the lack of vocabulary development of students who do not have different stimuli in the traditional education system.

At the same time, when the post-test successes in the experimental and control groups are compared, it was observed that the experimental group showed significantly higher success in all the unit post-tests and the total success rates compared to the control group.

Chart 4.6: Learning Chart of the Students
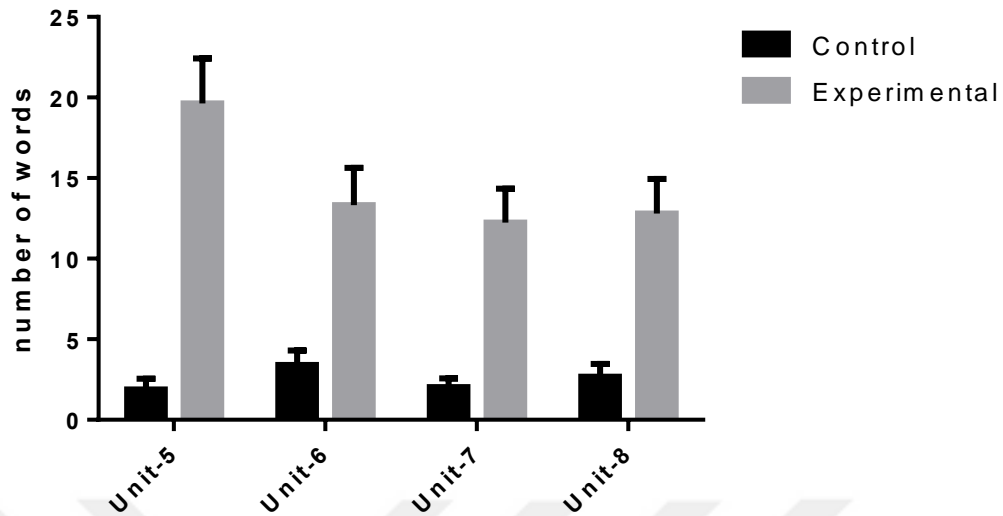
Number of words= # correct replies to the words in the post test - # of correct replies to the words in the pre test (whole class). The graph indicates standard error of mean (SEM). Statistical significance is determined using the Holm-Sidak method. Experimental group is significantly different from control group (p<0,0002, n=25).

When we summarize the results according to the findings;

- According to the pre-test results, it can be said that female participants were more successful in experimental and control groups than male participants.

- In the post-test results, female participants were more successful than male participants.

- According to the post-test results, male participants in the experimental group increased their percentage average success more than female participants, but female participants were still more successful.

- After practicing with the Memrise application, very high increase in success was observed in the experimental group.

- When the post-test results of the control group were examined, an increase was observed in female participants compared to their pre-test results, but it was not sufficient. There was no success increase in the pre-test and post-test results of male participants.

The effect of Memrise on the overall success is obvious. Both groups were given the same education and the only difference was the Memrise application in the experimental group. The experimental group, whose vocabulary knowledge increased considerably, was able to obtain the efficiency required from Memrise application.

4.3. Advantages and Risks of Memrise Application and Suggestions

Memrise is an effective mobile application to learn new words and expressions in the target language, like other similar applications in the same field. As we know, language is composed of words and the more words we know, the more our language proficiency will improve. Memrise is a useful tool for learning vocabulary in this respect. The aim of the application is for learners to transfer the words they have learned from short-term memory to long-term memory by repeating the words systematically until they are stored in long-term memory. Since it is possible to support the words being studied with visuals, Memrise also takes advantage of visual memory.

It is also possible to practice the pronunciation of words in the application, and thus Memrise contributes to the pronunciation and listening practice of the learner. Besides it helps us learn the correct spelling of words through exercises the application asks us to write.

However, it can be argued that Memrise is very useful for learning words and expressions in the first levels of language, but may be insufficient as the level progresses because it does not have any exercises about grammar and sentence formation. Language learning is not just about words. Sufficient grammar is also required to express oneself in a foreign language. The only way a learner can meet this need is by studying together with other applications in this field.

Considering Memrise application as an exercise for vocabulary teaching, there are cases where it is limited in vocabulary teaching. The usage and meaning of the words vary depending on the context in every language. There are connected words, more appropriate word groups to use with each other and also verbs that have a different meaning with prepositions such as phrasal verbs. The application may not fully meet needs by teaching only one or two meanings of a word. Although Memrise can meet the vocabulary needs of learners in the beginner and intermediate levels to a certain extent, it may be insufficient at advanced levels. In addition, since the words are not

learned within a context, learners may find it hard to practice these words in different situations and recall them.

Memrise is not a substitute for a teacher or a coursebook, but it is a supportive and effective mobile application for individual learning through enjoyable exercises. It also helps learners to store vocabulary and their pronunciation in memory by repetitive activities.

4.4. Conclusion

Experimental and control groups were formed in two classes. According to the information obtained in two months, the experimental group using Memrise application was more successful than the control group using only traditional education methods. The control group, which was more successful than the experimental group in the first exam held before the first unit, lagged behind the experimental group in the following exams. They did not show any noticeable success between the pretests and the posttests. Female students were more successful in both groups. Although there was no student in both groups who answered all the given words correctly in any units, there was a significant increase in success in the experimental group.

This chapter shows the findings of the research and in the following chapter, conclusion of the research takes place and recommendations are presented.

CHAPTER V

CONCLUSION AND DISCUSSION

In this study, the Memrise vocabulary learning application was examined. The Memrise application aims to teach vocabulary in foreign languages and contribute to language development by helping retain the vocabulary studied.

In addition to the quantitative evaluation of results in terms of percentages of vocabulary knowledge, this research also aimed to highlight qualitative results. As Memrise application is a constantly developing application, it is hard to estimate future quantitative results. Limited number of participants in the study makes it hard to generalize to larger audiences and makes it a qualitative study. Since no systematic change could be observed in students' success graphs, the research was mostly advanced with the conviction that the qualitative evaluation of the results would yield more understandable results.

In this research, two separate classes were selected as experimental and control groups. The Memrise application was installed on the phones of the experimental group. The experimental group used the Memrise application in addition to regular classroom instruction, while the control group only had regular classroom instruction.

Fifty-word pre-tests were applied to the experimental and control groups in the study which lasted 2 months and included 4 units. At the end of the units, post-tests were applied to the groups and the study continued in the same way for 4 units.

According to the findings of the study, the control group was more successful in the pre-tests than the experimental group. However, the experimental group showed very high success in post-tests compared to their pre-test results, while the control group did not increase their success level. The only reason that the experimental group was more successful in the post-tests was the inclusion of a mobile vocabulary learning application in their language course.

According to the results, the Memrise vocabulary learning application is influential in the learning process. The fact that the pre-test and post-test successes of the experimental and control groups were quite different led to the conclusion about how useful it would be to use such applications in language education. The use of mobile applications in addition to traditional teaching methods positively affected the success rate. Aiming to store new words in long term memory with lots of repetition, Memrise was influential in increasing the success of the experimental group gradually from unit 5 to unit 8. Thus, Memrise can be considered to facilitate the transfer of old learning to new learning situations.

The students in the experimental group were observed to be more motivated after the study began. They felt more confident in class as a result of their increasing success. Their attitudes towards the classes changed. They started to participate in the course more actively and they were more interested. Mobile applications such as Memrise can make students active participants of the education process by attracting their interest.

With the instant feedback the students received from the application they were observed to be more self-aware. We can say that Memrise contributed to autonomous learning for the experimental group students.

When someone learns a foreign language, they encounter lots of words that are not familiar to them. It is hard to remember them unless the new words are repeated over and over. Memrise helps learners to become familiar with new words and remember them.

Mobile applications may not teach a language on their own. However, educators can take advantage of mobile applications greatly by using them as a supportive tool in their classes. Mobile applications can make regular classroom instruction more familiar and understandable to students. Besides, time and space restrictions, high numbers of students in a classroom and the curriculum may not allow vocabulary learning activities to be performed at a desired level in traditional learning. Mobile applications can be very useful supportive resources to address such issues.

Vocabulary learning can be a boring task for many learners of a foreign language. With applications such as Memrise, vocabulary learning can be fun. Learners compete with each other and enjoy learning vocabulary through gamification techniques. In addition,

mobile applications are social learning areas and thus learners continue socializing while they are on the applications. Learners may also feel satisfied as they are using their mobile phones for educational purposes and not just wasting time.

Within the framework of the above discussion, the following recommendations are presented:

Nowadays, applications used for all kinds of activities should also be used for learning vocabulary in foreign languages. As we are very familiar with electronic devices today, the education system should be developed with a new model and young people who use mobile devices should be attracted to education and learning in this way. As a matter of fact, it has become necessary to use technology along with traditional methods. With mobile applications in the education system, students will be able to have fun and learn at the same time.

Mobile learning is a very fast, developing learning model. Mobile learning tools are constantly evolving, but learning content cannot be developed at the same pace. In light of these considerations, there is a need to specify design principles and processes so as to develop mobile learning contents expeditiously.

In the following years, mobile learning-oriented education will presumably become more dominant. There is a need for the inclusion of courses about the use of mobile learning and producing mobile content in education faculties. Foreign language teachers should be instructed and motivated through training programs about technological devices and applications. Since older educators are not like the 21st century students born into the digital age, they may often feel insecure when they use a new technological device. Inservice training about the use of technological devices could be supplied for educators who may need assistance. Mobile applications should be included in the curriculum in faculties of education. In order to attain the best education system, teachers, instructional designers and app developers should cooperate. This is necessary not only to be a society that consumes information, but also to be a productive one and we can presume that it will positively contribute to the education system in the long term.

Mobile learning applications should be developed and spread to all areas and projects should be developed for continuous use of mobile learning in education. New

educational approaches in language learning should focus on technological developments.

Mobile applications for education should also be discussed in the cultural context and elements of these values should be included.

With ever-developing technology, applications should be constantly updated and their advantages and limitations should be reviewed. Thus, learning through mobile applications will continuously improve and the number of uses and productivity will increase.

While mobile applications are relatively new in the world of education, the fact that they are influential instruments in education shows that traditional methods should now be adapted to technology. It is an undeniable fact that traditional education methods remain popular, while mobile education is also included. Mobile applications are increasing in the field of education and this attracts tech-savvy young learners to education. In the future, it can be argued that the traditional teaching methods will change to a great extent and methods involving technology will be adapted more. In order to continue learning without time and space constraints, learning through mobile applications should be supported, educational applications in various fields should be developed, current applications should be continuously upgraded and studies should be conducted on their deficiencies. Only in this way, can we equip the technological age generation with information and achieve the desired level of success by acting in accordance with the age.

Although mobile applications are only recently being used in the education world, researchers who will shed light on similar issues in the future can work to determine in which areas the applications will be more successful. They can include different applications in their research at the same time, create a new application proposal based on positive results, and measure whether different applications can be developed according to the genders of learners.

It is thought that it can be accepted as a new contribution to the education and with the development of mobile applications and responding to the needs at a larger rate, mobile applications can be the subject of much larger research.

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APPENDICES

Appendix A: Unit 5 Vocabulary Pre-Test

Vaccination:	To inquire:
Influential:	To behave:
Commercial:	Eventually:
Affordable:	Hopeless:
To shrink:	Profitable:
To set out:	To spread:
Urban:	Messy:
Further:	To regulate:
Flexible:	Peaceful:
Invention:	Out of order:
To outweigh:	There is no reception:
Consequence:	It is crashed/frozen:
Logical order:	As far as I am concerned:
Relevant:	To sort out:
Appropriate:	To rely on:
Impersonal:	Colleague:
Whereas:	Frustrating:
In my opinion:	To swear:
Efficient:	To beat:
Nightmare:	Mentor:
Wrestler:	Root:
To discuss:	Fiancée:
To debate:	Immigration:
To respond:	Weakness:
To research:	
To investigate:	

Appendix B: Unit 5 Vocabulary Post-Test

Affordable:	Profitable:
Appropriate:	Relevant:
As far as I am concerned:	Root:
Colleague:	There is no reception:
Commercial:	To beat:
Consequence:	To behave:
Efficient:	To debate:
Eventually:	To discuss:
Fiancée:	To inquire:
Flexible:	To investigate:
Frustrating:	To outweigh:
Further:	To regulate:
Hopeless:	To rely on:
Immigration:	To research:
Impersonal:	To respond:
In my opinion:	To set out:
Influential:	To shrink:
Invention:	To sort out:
It is crashed/frozen:	To spread:
Logical order:	To swear:
Mentor:	Urban:
Messy:	Vaccination:
Nightmare:	Weakness:
Out of order:	Whereas:
Peaceful:	Wrestler:

Appendix C: Unit 6 Vocabulary Pre-Test

To experience:

To recognize:

To escape:

Ancestor:

To deal with:

Throat:

Chest:

Unpredictable:

To induce:

Eyebrow:

To disgust:

Disease:

Embarrassed:

Confusing:

Exhausted:

To count:

Laughter:

To get on well:

To persuade:

To raise money:

Charity:

Queue:

To do a favour:

Badge:

To present:

Easy on the eye:

To break down:

In all likelihood:

Obsession:

To break up with:

To get promoted:

Nightmare:

Granny:

To burst into tears:

Charming:

Lighthouse:

Three-course meal:

Bride:

Groom:

Satisfied:

To melt:

Competition:

Astonishing:

Fascinated:

Frustrating:

Terrified:

Impatient:

To call off:

To put off:

To take after:

Appendix D: Unit 6 Vocabulary Post-Test

Ancestor:	Satisfied:
Astonishing:	Terrified:
Badge:	Three-course meal:
Bride:	Throat:
Charity:	To break down:
Charming:	To break up with:
Chest:	To burst into tears:
Competition:	To call off:
Confusing:	To count:
Disease:	To deal with:
Easy on the eye:	To disgust:
Embarrassed:	To do a favour:
Exhausted:	To escape:
Eyebrow:	To experience:
Fascinated:	To get on well:
Frustrating:	To get promoted:
Granny:	To induce:
Groom:	To melt:
Impatient:	To persuade:
In all likelihood:	To present:
Laughter:	To put off:
Lighthouse:	To raise money:
Nightmare:	To recognize:
Obsession:	To take after:
Queue:	Unpredictable:

Appendix E: Unit 7 Vocabulary Pre-Test

Talent:

To achieve:

To be determined:

To reveal:

Obvious:

High achiever:

Tuition:

Runner up:

To be on a shortlist:

To nominate:

To have a lot in common:

To have access:

To pick up on something:

To cope with:

To stick to something:

Gifted:

To have an aptitude for something:

Useless:

To sit still:

Accurate:

Outstanding:

Various:

To crawl:

Extraordinary:

Elbow:

Incredible:

Abbreviation:

Distance learning:

Apprenticeship:

For one thing:

To suffer (from):

Convenient:

Candidate:

Benefit:

Marine:

Prize:

Award:

Event:

Area of interest:

Behavior:

To count:

To manage:

To investigate:

To outweigh:

To regulate:

To rely on:

To research:

To respond:

Appendix F: Unit 7 Vocabulary Post-Test

Abbreviation:	To be determined:
Accurate:	To be on a shortlist:
Apprenticeship:	To cope with:
Area of interest:	To count:
Award:	To crawl:
Behavior:	To have a lot in common:
Benefit:	To have access:
Candidate:	To have an aptitude for something:
Convenient:	To investigate:
Distance learning:	To outweigh:
Elbow:	To regulate:
Event:	To rely on:
Extraordinary:	To research:
For one thing:	To respond:
Gifted:	To manage:
High achiever:	To nominate:
Incredible:	To pick up on something:
Marine:	To reveal:
Obvious:	To sit still:
Outstanding:	To stick to something:
Prize:	To suffer (from):
Runner up:	Tuition:
Talent:	Useless:
To achieve:	Various:

Appendix G: Unit 8 Vocabulary Pre-Test

To get on well:	Changing room:
To do a favour:	Sewing:
To mind one's own business:	Pay phone:
To get on one's nerves:	Congestion:
Nosy:	Loyal:
To pop over:	Engaged:
Possession:	Familiar:
Neighbourhood:	Entrepreneur:
In the sense (of something):	Sense of community:
Regardless of:	Launch:
To emerge:	Subscriber:
To reveal:	To come true:
Well off:	Convenient:
To catch fire:	User-friendly:
Plenty:	Make yourself at home:
To terrorise:	Excuse the mess:
Annoying:	Be my guest:
Charming:	Help yourself:
Grateful:	Put your feet up:
Ridiculous:	To shake hands:
Semi-detached:	My apologies:
Outdoor:	To sort out:
Duty-free:	Dairy:
Sun tan:	To rip:
High-heeled:	Accidentally:

Appendix H: Unit 8 Vocabulary Post-Test

Accidentally:

Annoying:

Be my guest:

Changing room:

Charming:

Congestion:

Convenient:

Dairy:

Duty-free:

Engaged:

Entrepreneur:

Excuse the mess:

Familiar:

Grateful:

Help yourself:

High-heeled:

In the sense (of something):

Launch:

Loyal:

Make yourself at home:

My apologies:

Neighbourhood:

Nosy:

Outdoor:

Pay phone:

Plenty:

Possession:

Put your feet up:

Regardless of:

Ridiculous:

Semi-detached:

Sense of community:

Sewing:

Subscriber:

Sun tan:

To catch fire:

To come true:

To do a favour:

To emerge:

To get on one's nerves:

To get on well:

To mind one's own business:

To pop over:

To reveal:

To rip:

To shake hands:

To sort out:

To terrorise:

User-friendly:

Well off:

CV

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