T. C.

BALIKESİR ÜNİVERSİTESİ

SOSYAL BİLİMLER ENSTİTÜSÜ

YABANCI DİLLER EĞİTİMİ ANABİLİM DALI

THE EFFECT OF USING MOBILE APPLICATIONS ON LITERAL AND CONTEXTUAL VOCABULARY INSTRUCTION

YÜKSEK LİSANS TEZİ

Özgür ÇELİK

Balıkesir, 2018

T.C.

BALIKESİR ÜNİVERSİTESİ

SOSYAL BİLİMLER ENSTİTÜSÜ

YABANCI DİLLER EĞİTİMİ ANABİLİM DALI

THE EFFECT OF USING MOBILE APPLICATIONS ON LITERAL AND CONTEXTUAL VOCABULARY INSTRUCTION

YÜKSEK LİSANS TEZİ

Özgür ÇELİK

Tez Danışmanı

Yrd. Doç. Dr. Fatih YAVUZ

Balıkesir, 2018

T.C.
BALIKESİR ÜNİVERSİTESİ
SOSYAL BİLİMLER ENSTİTÜSÜ
TEZ ONAY SAYFASI

Enstitümüzün Yabancı Diller Eğitimi Anabilim Dalı'nda 201412553006 numaralı Özgür ÇELİK'in hazırladığı "The Effect of Using Mobile Applications on Literal and Contextual Vocabulary Instruction" konulu YÜKSEK LİSANS tezi ile ilgili TEZ SAVUNMA SINAVI, Lisansüstü Eğitim Öğretim ve Sınav Yönetmeliği uyarınca 22.12.2017 tarihinde yapılmış, sorulan sorulara alınan cevaplar sonunda tezin onayına OY BİRLİĞİ ile karar verilmiştir.

Üye: Yrd. Doç. Dr. Fatih YAVUZ (Danışman)
İmza: ....

Üye: Prof. Dr. Mehmet TAKKAÇ
İmza: ....

Üye: Prof. Dr. Dilek İNAN
İmza: ....

Yukarıdaki imzaların adı geçen öğretim üyelerine ait olduklarını onaylarım.

22 /01 /2018

Yrd.Doç.Dr.Alper UZUN
Müdür Yardımcısı

ACKNOWLEDGEMENTS

ÖZET

MOBİL UYGULAMA KULLANIMININ SÖZLÜKSEL VE BAĞLAMSAL KELİME ÖĞRETİMİNE ETKİSİ

ÇELİK, Özgür

Yüksek Lisans, Yabancı Diller Eğitimi Anabilim Dalı,
İngiliz Dili Eğitimi Bilim Dalı
Tez Danışmanı: Yrd. Doç. Dr. Fatih YAVUZ
2017, 86 Sayfa

Akıllı telefonlar hayatımızın ayrılmaz bir parçası haline gelmiştir ve hayatın tüm alanlarında etkin bir şekilde kullanılmaktadır. Akıllı telefonların en önemli bileşenlerinden birisi olan mobil uygulamalar, akıllı telefonların eğitime uyarlanmasındaki ana etkenlerden birisidir. Mobil uygulamaların eğitim amaçlı kullanılmaya başlanmasından sonra, eğitim daha bireyselleştirilmiş, öğrenci merkezli, yaygın ve endişelendirici biçimde kontrolsüz bir hal almaya başlamıştır. Dil öğrenimi mobil uygulamaların bu mevcut etkisinden hayli etkilenmiş ve kelime uygulamaları uygulama marketlerinde sayıca en üst sırada olan uygulamalardan olmuştur. Bu çalışma mobil uygulamaların, kelimelerin bağlamsal ve sözlük anlamının öğretimi üzerine etkisini bulmayı amaçlamaktadır. Çalışmanın katılımcıları olarak 84 üniversite birinci sınıf öğrencisi seçilmiştir. Katılımcılar bağlamsal çalışma grubu ve sözlük anlamı çalışma grubu olarak ve her iki grupta 42 katılımcı olacak şekilde iki gruba ayrılmıştır. Her iki gruba da grubun özellikleri doğrultusunda seçilen mobil uygulamaların kullanıldığı dört haftalık bir eğitim süreci uygulanmıştır. Akademik başarı, Pre-test, Post-test ve değişim puanı ortalamaları bakımından Contextual ve Literal grupları arasında istatistiksel olarak anlamlı fark olup olmadığı Mann-Whitney U testi ile incelenmiştir. Her bir grupta Pre-test ve Post-test puan ortalamaları arasında fark olup olmadığı ise Wilcoxon Sign Rank Test ile değerlendirilmiştir. Sonuç olarak, her iki grubun da post-test sonuçlarında ilerleme gösterdiği bulunmuş ancak sözlük anlamı çalışma grubunun sonuçları bağlamsal çalışma grubunun sonuçlarından çok daha iyi olduğu saptanmıştır. Bu bulgular eşliğinde, daha sonraki çalışmalar için önerilerde bulunulmuştur.

Anahtar Kelimeler: Mobil Uygulamalar, MALL, Kelime, Bağlamsal Öğretim, Sözlük Anlamlı Öğretim

ABSTRACT

THE EFFECT OF USING MOBILE APPLICATIONS ON LITERAL AND CONTEXTUAL VOCABULARY INSTRUCTION
ÇELİK, Özgür

Master's Thesis, Department of English Language Teaching
Advisor: Asst. Prof. Dr. Fatih YAVUZ
2017, 86 pages

Smartphones have been an indispensable part of our lives and function in all fields of life effectively. Mobile applications, which are one of the core components of smartphones, are the main agent in integration of smartphones into education. After the mobile applications started to be used for educational purposes, a radical change took place in the nature of education. With the contribution of mobile applications, education has turned out to be more individualized, ubiquitous, learner-centred and, disquietly, uncontrolled. Language learning is highly affected by this prevalent impact of the mobile applications and vocabulary applications have taken the lead in number in application markets. This study aimed to find out the effectiveness of mobile applications on contextual and literal vocabulary instruction. 84 university freshman students were chosen as the participants of the study. The participants were divided into two groups as literal and contextual vocabulary instruction group, 42 in each. A four-week training session was administered to both groups using the particular vocabulary apps that comply with the necessity of the groups. The data obtained were analysed with Statistical Package for Social Sciences (SPSS) version 15 and the relevance of the data to the normal distribution were assessed by the Shapiro-Wilk test. The Mann-Whitney U test was used to examine whether there was a statistically significant difference between Contextual and Literal groups in terms of academic achievement, pre-test, post-test and change score averages. The Wilcoxon Sign Rank Test was used to see whether there was a difference between pre-test and post-test averages in each group. Consequently, it was found out that both groups showed improvements in their post-test scores, but literal instruction group outperformed the contextual instruction group. Along with this finding, some recommendations were made for further studies.

Keywords: Mobile Apps, Vocabulary, Contextual Instruction, Literal Instruction, MALL

LIST OF ABBREVIATIONS

CALL   : Computer Assisted Language Learning
MALL   : Mobile Assisted Language Learning
App   : Application
SPSS   : Statistical Package for Social Statistics
ÖSYM   : Öğrenci Seçme ve Yerleştirme Merkezi
YGS   : Yükseköğretime Geçiş Sınavı
SMS   : Short Message Service
PDA   : Personal Digital Assistant
MMS   : Multimedia Messaging Service
ESL   : English as a Second Language
iOS   : iPhone Operating System
SLA   : Second Language Acquisition
GTM   : Grammar Translation Method
DM   : Direct Method
ALM   : Audio-Lingual Method
SW   : Silent Way
TPR   : Total Physical Response
CLL   : Community Language Learning
CLT   : Communicative Language Teaching
CBI   : Content Based Instruction
TBLT   : Task Based Language Teaching
LA   : Lexical Approach
CVA   : Contextual vocabulary acquisition
SIM   : Subscriber Identity Module
OS   : Operating System
SLA   : Second Language Acquisition
ELT   : English Language Teaching

TABLE OF CONTENTS

LIST OF TABLES

1. INTRODUCTION

Education, as a phenomenon, has undergone four dramatic changes throughout the history with the invention of writing, computers, Web 2.0 technology and smartphones respectively. The invention of writing placed education on a concrete basis as well as changing its nature into a more disciplined structure. Computers contributed to the nature of education by creating a secure and productive atmosphere -what is called as 'virtual'. After the emergence of Web 2.0 technology, education adopted an autonomous and individual identity and smartphones removed the borders in time and place by mobilizing the education.

Computers started to influence educational systems 10-15 years after the first functional private computer had been invented. Originated by Levy, Computer Assisted Language Learning (CALL) created a fruitful atmosphere both theoretically and practically. Till the introduction of Web 2.0 technology, computers had been effectively used in education but after Web 2.0 authoritarian nature of education yielded to a user-oriented system at the same time promoting the terms such as autonomous learning, learner-based teaching, situated cognition and so on. Web 2.0 has started to gain a position as the cornerstone for learner-centred methods and theories.

The invention of smartphones substantially changed the way that mobile phones had been used. At the same time, they decreased the dependency to the computers by serving nearly all the functions of a computer. The advantages they serve to the users such as portability and user-friendly nature made smartphones the most favourite technological items of the era. The inevitable implications of this popularity started to be seen in education immediately. Mobile Assisted Language Learning (MALL) deposed the hegemony of CALL and reasserted its position in education.

In the introduction part, a constitutional basis of the study is drawn. The problems that act as the motivation for this study about teaching vocabulary and mobile phone use in classrooms are discussed thoroughly. After the problems set forth, the aim of this study is presented in the 'Purpose of the Study' section and what makes this study special is answered in the 'Significance of the Study' section. Following this framework, research questions are given. Limitations of this study are stated at the end of the section.

1.1. Problem

Language learning occupies a large part of the learning process of a learner. It is acknowledged as the most difficult and complex learning experience by most in terms of its complicated nature. Such a complicated process includes the acquisition of four major skills (listening, speaking, reading, writing) and vocabulary, pronunciation, phonetics etc. A systematic study and harmony between these factors are requirements of a successful learning process. However, it is the learning area that learners have problems most. The problems of a language learning process can be grouped into two categories; learner-based problems and teacher-based problems. Learner-based problems are the interference that stems from the learner itself. These problems are mainly cognitive and affective problems. One of the biggest problems about learners can be considered as the lack of motivation. In a language learning process, motivation is what should be achieved at first. A strong motivation makes learners move on, keeps their enthusiasm alive and acts as a driving force for them. Learning motivation is the 'fuel' of the learning process. On the other hand, lack of motivation hinders the learning progress by interfering the cognitive abilities. Thus, having a strong motivation is crucial for learners in language learning process. Another problem that learners experience is low or high anxiety. In language learning process, learners may feel too anxious or have low anxiety both of which cause negative reflections to the learning process. Anxiety can be regarded as a tool to be used in language learning. Learners are expected to feel a bit anxious about their progress which shows that they are motivated to learn; on the other hand, excessive anxiety hinders the emergence and use of cognitive abilities. Having an average anxiety level is a necessary factor to have in language learning process. The last learner-based problem is the method followed or strategy adopted by learners. Since language learning is a unique process that is special to individuals and varies according to learners' specifications, no language learning method or strategy can be labelled as universal or suitable for all language learners. Present language learning methods and techniques can be grouped into two categories; academic ones and commercial ones. The first one was originated for academic purposes which are based on a scientific idea and characterized by a background study and the latter is compiled to earn money which is not scientifically valid or reliable but has been favoured by many learners because of widespread commercial advertisements. Most of the commercial language learning methods or strategies have failed to make learners acquire the language studied which results in demotivation of learners and adding up the number of people who had tried to learn a language and failed to do so. In this point, it is crucial for learners to know the characteristics of their

own learning process and find the method and strategies that will comply with their learning style and help them reveal their learning power by exploiting the process to the full. Teacher-based problems mainly stem from teachers or the methods they follow. For every teacher, it is crucial to be up-to-date both in their field and social reality. Teachers who cannot follow the contemporary developments in their field and apply them to their classes remain incapable of answering the learners' demands. Teachers should be one step ahead of learners in every aspect to be able to foresee the learning process and coordinate it successfully. Another problem about teachers is that most of the teachers cannot give up traditional techniques and principles. The traditional methods, strategies and techniques do not completely fit in the new learner profile and cause gaps in the teaching process. Teachers need to create their eclectic method compiled by contemporary methods considering the new characteristics of learner profiles from every aspect. Also lagging behind the technological developments is another problem for teachers. Technology has long been nested in education for a long time and it is now an indispensable part of it. Learners are already acquainted with technological devices such as computer, smartphones and gadgets. At this point, teachers need to be equipped well to be able to canalize the use of technological devices into education. These problems in a language learning process, concisely categorized as learner-based and teacher-based problems, are crucial disruptors of language learning to be overwhelmed by learners and teachers both.

In a language learning process, vocabulary learning is the one that starts at the very beginning of the process and never ends since the vocabulary in a language is unlimited. Most learners feel that the first thing to do in learning a language is learning some new words so that they can use these words to produce expressions. In other words, for learners, production means learning vocabulary. Vocabulary learning is the first and the most concrete indicator of language learning. Beginner learners motivate or demotivate themselves according to the vocabulary amount they learn at the first stages of learning a language. Vocabulary learning can be regarded as a crucial stage for beginner level learners in that vocabulary acts as the strongest tie between the language and the learner. In this sense, it turns out that fulfilling this stage successfully is pretty important in terms of learners' motivation to move on learning the language. So, eliminating the problems faced at this stage is another important point. Since this study focuses on the effect of using mobile applications in literal and contextual vocabulary teaching, the problems are grouped under three subheadings: problems related to literal vocabulary teaching, problems related to contextual vocabulary teaching and the problems related to mobile phone use in schools. The next part explains each of these subheadings.

1.1.1. Problems Related to Literal Vocabulary Teaching

Literal vocabulary teaching is simply teaching the direct meaning of a word in target language. This may be the word itself or a chunk. Literal vocabulary teaching has been considered important by teachers and learners. For teachers it is easy to present, practice and evaluate and for learners the feeling that they are learning the language as they learn new words is motivating. However, this first impression about the advantages of literal vocabulary instruction yields to some problems with time. The most common problem about literal vocabulary instruction is that learning occurs at short-term memory. In other words, it is inevitable to forget the words memorized in a short period. Learners tend to memorize the native language equivalents of words for specific purposes such as standardized tests or school exams. In this way of learning it is generally impossible to transfer the memorized words to long-term memory unless the learners keep on dealing with the words memorized. So, the words memorized will be forgotten after a certain period of time and the learner keeps memorizing the words again. In this tiresome circle, learners begin to feel that they are incapable of learning new words and this feeling ends up in demotivation of learners. Another problem about literal instruction is that it completely relies on memorization. Memorization, by its nature, is a special technique that some are excelled more than others. Since literal learning involves memorization of the words and memorization is regarded as an innate skill, this creates an unequal atmosphere in classrooms between learners because some learners will be more talented than others in terms of memorizing the words. In general sense, this inequality is, somehow, not a problem and regarded as the reality of learning environment but when learning a language is considered equal to learning literal meanings of words, as it was in traditional methods, there lies the problem. This tendency imposes the notion that the more you memorize new words, the more you know about the language. Memorization ceases to be a tool in vocabulary teaching but turns out to be the objective of vocabulary instruction. This problem triggers another issue which could be named as the production problem. Focusing solely on literal instruction shifts the objective of vocabulary instruction from production to memorization. As a result, using the words yields to knowing the words and this tendency kills production because learners' motivation shifts from production to memorization. Knowing the meanings of words means learning the language. Both teachers and learners may have this tendency because it looks fruitful and easy to manage. The worst problem that this perception causes is that learners just learn the literal meaning of the words, not the contextual meaning. The literal meaning and the

contextual meaning of a word may be different in most cases. Word meanings may be contextually different from their literal meanings. Distinguishing this difference in meaning requires more than knowing just the literal meaning of words. It requires sentence comprehension, paragraph coherence and some other skills. Learners who just focus on memorizing the literal meaning of words have difficulty in understanding the contexts. This problem occurs especially in writing skills. Using the literal meaning of a word in writing may be misleading.

The problems in literal vocabulary teaching are important problems because vocabulary learning starts at the very beginning of language learning and generally, the first problems that learners experience are about vocabulary learning. These problems should be handled professionally and eliminated instantly so that learners do not lose their initial motivation since initial stage of language learning is a critical stage in terms of learner motivation.

1.1.2. Problems Related to Contextual Vocabulary Teaching

Rapaport (2003) defines the contextual vocabulary acquisition as the active learning of the meaning of words in a text by using the clues in the text with the help of prior knowledge. As Rapaport stated, contextual vocabulary learning is an active process in which learners' cognitive skills take part in along with the prior knowledge. It is mainly a learner-based process in which learners need to engage in the process as much as they can because contextual vocabulary learning relies on the principles of constructivist theory. In this process, learners are expected to construct their learning by making inferences, interpreting their present knowledge, reconsidering and re-use their prior knowledge and incorporating their knowledge on other majors. In this sense, it turns out that contextual vocabulary teaching requires learners to use cognitive skills such as guessing, inference, interpretation and so on. This sophisticated process grants learners a long-lasting vocabulary knowledge.

Such a delicate process conceives several problems to be dealt with. The first problem is that the learning process of contextual vocabulary is intensively learner-centred which requires high motivation and great effort. Unlike literal learning, contextual learning is a sophisticated process that learners undergo. The first phase of being successful in this process is high motivation. Learners need to be highly motivated to work on because they undergo a challenging process which holds several factors that can reduce the motivation of learners. At this point, it is the teachers' role to ensure the motivation that learners need. Also, learners'

minds need to be alerted because, in this process, the cognitive skills to be used rely on an alert mind. When compared to literal vocabulary learning, in contextual vocabulary learning the workload on learner is higher. It is this workload that makes the process problematic. The second problem interrelated with the aforementioned problem is that teachers need to be skilful enough to prepare, manage and finalize the process. Since contextual vocabulary teaching relies on the principles of constructivism and learners are expected to perform a step by step progress, teachers are expected to prepare their lesson plans accordingly. Teachers should be careful in choosing the appropriate materials for learners' level and prepare extra strategies and techniques to help learners move on when they get stuck. Well-chosen materials, detailed lesson plans and learner-centred strategies are teachers' main workload in teaching vocabulary contextually. Contextual vocabulary teaching is a sophisticated and delicate process for both learners and teachers. The third problem about contextual teaching emerges in the learning process. It can be stated that while literal vocabulary teaching is a product based instruction, contextual vocabulary teaching is a process based instruction. In literal teaching, learners focus on just memorizing the words which prioritize the product, in other words memorizing the meaning. In contextual teaching, the process of learning is more important than the product because in the process learners acquire some abilities and improve other language learning skills which means that the process teaches more than just the word 'knowledge'. This tiring and challenging process requires patience for both learners and teachers. Also, collaboration between learners and teacher is essential because the success of the process depends on this collaboration in that it is not a simple and one-sided course to be conducted individually. The lack of this collaboration and patience may create serious problems in learning process resulting with demotivation and failure.

The contextual vocabulary teaching process is encumbered with many cognitive and affective problems which are expected to be foreseen and need to be minimized. The problems at this stage should be handled delicately because this stage is where the basis of the language learning starts to be laid.

1.1.3. Problems Related to Smartphone Use and Mobile Applications

Mobile phones have been actively and functionally used since 1990 in the world. In 2007 the concept of mobile phone underwent a radical change and smartphones abdicated the throne of mobile phones. Since then smartphones have been used by people addictively. This addiction reached such a degree that smartphones are now counted as a body part because they have turned out to be an indispensable part of human life.

The reflection of smartphones in education started to be seen in the early 2000s. This reflection occurred both negatively and positively. Along with its numerous positive contribution to education, it has considerable drawbacks in education, too. The biggest problem that smartphones created in schools is that they attracted all the attention of learners. Smartphones started to be the sole attraction point for learners. Even if they turn them off or they are far from their smartphones, their minds are always with them. It may not be wrong to say that people have established a mental tie with their smartphones. This tie is among the main reasons of learners' distraction in school. In terms of language learning, smartphones have a considerable effect on learning process both positively and negatively. Negative effects of smartphones in language learning can be expressed in two ways. First, as aforementioned, smartphones create distraction problem for learners. The addiction of smartphones may interfere in the quality of learning process. Second, smartphone markets offer a great deal of language learning applications most of which do not stand on a scientific basis and do not have any methodological background. These applications mislead, mis-teach and demotivate learners because learners get no result at the end of their efforts. The number of mobile apps that intend to teach vocabulary contextually and literally and their download counts are shown in table 1 below.

Table 1. The Number of Mobile Apps That Intend to Teach Vocabulary Contextually and Literally and Their Download Counts on Google Play (play.google.com, 2017)

16.08.2017	Number	Downloads
Number of Apps that teach vocabulary literally on Google Play	141	40.618.000
Number of Apps that teach vocabulary contextually on Google Play	51	8.515.000

This table reveals that the number of apps that aim to teach vocabulary literally is nearly three times more than the contextual apps. Also download counts show that literal vocabulary apps are highly demanded by users compared to contextual vocabulary apps. It is a fact that the majority of these apps are prepared by non-specialists and away from a scientific background. In can be inferred that the user tendency promotes the download of literal and non-scientific vocabulary apps which is the reflection of Web 2.0 technology's user integration to language instruction as an 'uncontrolled' learning environment.

1.2. Purpose of the Study

Vocabulary instruction is crucially important in language learning in that it is regarded as the first phase of learning that learners deal with and care about. The problems revealed above show the significance of the consequences of these problems. Also, the importance of mobile instruction is drawn above by narrowing down two categories; literal and contextual vocabulary instruction. And the effect of mobile use in education is mentioned briefly. In the light of these circumstances, this study has several aims. In general sense, the purpose of this study is to show the effect of mobile applications on literal and contextual vocabulary instruction and determine on which they are the most effective. In another sense, this study aims to make clear the use of mobile applications on vocabulary instruction in general. Also, considering that smartphones will be included in learning programmes as a course material in near future, this study aims to create an insight about the integration of mobile applications into the syllabus.

1.3. Significance of the Study

In recent years, there has been an increase in the studies that investigate the role of smartphones in education and few of them are related to vocabulary instruction. In many studies, it is concluded that smartphone use has a considerable effect on vocabulary instruction in general, but vocabulary instruction is such a wide and sophisticated field to be investigated as a whole. Taking the vocabulary instruction as a whole may lead misconceptions in studies. So, this study draws attention to a more specific point on vocabulary instruction by limiting the study as literal and contextual vocabulary instruction. By this way, it is thought to derive better results and contribute to the literature on vocabulary instruction. Also, another purpose of this study is to contribute to the discussion on the use of smartphones as a course material in

education. The results of this study may serve considerable consequences that can widen this discussion.

1.4. Research Questions

The importance of vocabulary instruction, the problems that occur in this process and the current situation of smartphone usage in schools are explained above briefly and will be detailed thoroughly below. Within this context, this study specifically looks for the effect of mobile applications on literal and contextual vocabulary instruction. The reason why this study draws a specific and narrow frame rather than a broader scope such as vocabulary instruction in general is to get more accurate results by eliminating the irrelevant variables that may interfere in the study. Accordingly, the main research question of this study is:

1- Is the use of mobile applications more effective on literal vocabulary instruction or contextual vocabulary instruction, and to what extent?

1.5. Limitations

This study has some limitations. First of all, the scope of vocabulary instruction is limited to literal and contextual vocabulary instruction. Second, this study works with the participants who are university level students, whose native language is Turkish and English level is A1. Third, the teaching period is limited to six weeks including pre-test and post-test. Finally, the mobile applications used in the study are specific applications which also limit the study according to the content of the material.

2. REVIEW OF LITERATURE

2.1. Theoretical Framework

In this section, the theoretical framework of the study will be drawn. The theoretical framework unfolds the methodological background of the study by explaining the core components such as methods, techniques, strategies, assumptions and definitions. This section is divided into two parts as Vocabulary and Mobile Assisted Language Learning. Each part gives detailed methodological explanations in itself and each part is divided into subdivisions in an organized way.

2.1.1. Vocabulary

This part tries to form the descriptive basis of the term vocabulary by introducing the core definitions and explanations under three subheadings. In the first part, the basic definitions of vocabulary are explained. In the second part the relationship between words and meaning is revealed and in the last part, the function of vocabulary learning in second language acquisition is highlighted.

2.1.1.1. Definition of Vocabulary

In general sense, vocabulary is defined as the words in a language. While trying to explain the difference between the terms vocabulary, lexicon, lexis and dictionary, Jackson and Amvela (2007) define vocabulary as the total words stock in a language. Also, Barcroft, Sunderman and Schmitt (2011) stated a similar definition of the word 'lexis' as the entire vocabulary of a language. On the other hand, Oxford Learner's Dictionary (2016) lists three definitions for the word 'vocabulary', which are (1) all the words that a person knows or uses, (2) all the words in a particular language, (3) the words that people use when they are talking about a particular subject. According to these definitions, it can be concluded that there is the subject's vocabulary, the language's vocabulary and the person's vocabulary. The latter is the broadest definition of vocabulary because a person's vocabulary covers the words both in the native language and target languages. Looking at the definitions above, a critical conclusion can be drawn. The word 'vocabulary' does not have the same meaning as lexis all the time. For instance, the word 'lexis' and the phrase 'a language's vocabulary' have the same meaning because lexis, as Barcroft, Sunderman and Schmitt (2011) defined, means all the words in a language. On the other hand, the word 'lexis' and the phrase 'a person's vocabulary' are not

the same because a person's vocabulary is limited to what s/he knows. Another confusion about the definition of vocabulary is highlighted by Lessard-Clouston (2013) in his book. He questioned the inclusion of chunks and phrases such as 'good morning' and 'nice to meet you' into the definition of vocabulary. By supporting his idea with Alali and Schmitt (2012)'s study on formulaic sequences, which was previously known as automatic speech or embolalia, he draws a broader frame to define vocabulary as the words, phrases and lexical chunks in a language.

The definition of vocabulary has gone into a shift and it seems that it has not completed its evolution. Once the popular meaning of the word 'vocabulary' as 'a list of words with explanations of their meanings, especially in a book for learning a foreign language' is labelled as old-fashioned in Dictionary of Contemporary English (2016). New studies on vocabulary would help it to develop a well-defined definition.

2.1.1.2. Vocabulary and Meaning

The ultimate aim of learning a language is to communicate in the target language. One of the essential components of communication is to convey the meaning. When you manage to convey the meaning in the target language, it means that you are able to communicate in the target language. Several factors take part in conveying the meaning, one of which is vocabulary. In his study, Wilkins (1972) summarizes this notion as "without grammar very little can be conveyed; without vocabulary, nothing can be conveyed." So, it turns out that vocabulary knowledge is the precondition of conveying the meaning. When it's about conveying the meaning, an important prerequisite should be taken into consideration, which is understanding the meaning. Before conveying the meaning, speakers have to understand it first, which can be achieved with adequate vocabulary knowledge. This problem constitutes the basis of Biemiller et al. (2014)'s study and they see the determining word meaning as a major practical problem. Also, this problem is addressed in Kominsky and Keil (2014)'s study and they try to show how much learners depend on external sources to understand word meanings. External sources help learners to derive the word meaning but at the same time, they can interfere in the deriving of the meaning. Another study by Kaivanpanah and Alavi (2008) defines this problem as incomprehensibility problem that caused by unknown lexical items in the input by referring to Krashen (1985)'s The Input Hypothesis. According to The Input

Hypothesis, the input should be comprehensible to be acquired. Vocabulary knowledge acts a crucial role in making the input comprehensible for learners.

These studies show that vocabulary is crucial in deriving the meaning first and then conveying it. The direct and close relationship between vocabulary and meaning promotes the significance of vocabulary instruction and vocabulary learning.

2.1.1.3.   The Role of Vocabulary in SLA

Language learning covers a huge part of a person's learning process and it can be accepted as the most challenging and sophisticated learning field. If we assume the language learning as a whole tree, vocabulary learning constitutes the body of this tree along with some other significant skills. A strong tree requires a strong body. A successful learning experience is tied to a rich vocabulary knowledge.

Second language acquisition is a disciplined process that is formed by some stages, all of which have a unique nature. The importance of vocabulary in this process is a gospel truth. In his study, Barcroft (2004) defines vocabulary acquisition as a central component of SLA and draws attention to the increase in studies which investigate the importance of vocabulary instruction in SLA in the past two decades. Another study by Khoii and Sharififar (2013) labels vocabulary instruction as the core component of language proficiency and the basis of communication. The fact that vocabulary knowledge is a crucial factor for a successful communication has been studied and compromised by many researchers. One of these researchers, Krashen (1989) accepts that vocabulary is essential for the mastery of language and supports this idea with a statement that learners carry dictionaries with them, not grammar books, which is a clear indication that learners need words rather than grammar rules. At the very beginning, there was a tendency that grammar instruction is the basis of language learning and thus communication. Vocabulary instruction was neglected for a long time by methodologists, researchers, teachers and learners. The focus was intensely on grammar. With the contribution of new researchers showing the significance of vocabulary in communication and the obvious failure of grammar shifted the focus on vocabulary. Vocabulary started to be investigated by researchers and SLA field engaged into a renovation process. Language programs, curriculums and methods started to give a wide coverage to vocabulary instruction. As Wharton (2010), stated in his study, material developers noticed how essential vocabulary is for language programs. Also, this shift was noticed by Thornbury (2006) and in his book, he

draws attention to the yielding of grammar based syllabus to lexical syllabus that intensely focuses on vocabulary. He presents the advertorial claims of the new editions of famous textbooks to show how vocabulary takes the lead from grammar. The claims are as follow: (1) strong emphasis on vocabulary with a particular focus on high frequency, useful words and phrases (Cutting Edge Intermediate). (2) Well-defined vocabulary syllabus plus dictionary training and pronunciation practice, including the use of phonetics (New Headway English Course). (3) a strongly lexical syllabus, presenting and practicing hundreds of natural expressions which students will find immediately useful (Innovations). As can be understood from these claims, vocabulary instruction gained an important position in SLA. Another study that questions why vocabulary knowledge is a major factor in linguistic competence was conducted by Anderson and Freebody (1979). They put forward that under the importance of vocabulary knowledge lies three hypothesises, which are; instrumentalist hypothesis, aptitude hypothesis and knowledge hypothesis. Instrumental hypothesis, briefly, claims that the more you have rich vocabulary, the more you can understand a text. This hypothesis shows the direct relationship between vocabulary knowledge and text comprehension. Aptitude hypothesis relates to discourse comprehension. It claims that there is a direct relation between the vocabulary knowledge and mental agility. Vocabulary knowledge fosters mental agility and this help learners build better discourse comprehension. Knowledge hypothesis is related to the cultural comprehension. Vocabulary knowledge presents learner deep cultural references and cultural knowledge is a tool to understand texts. This study suggests that vocabulary knowledge has considerable effect on other skills.

The ultimate aim of SLA is to be able to communicate in the target language. As Krashen (1985) formulated, communication is an input-output issue. Vocabulary knowledge plays a crucial role both in the decoding input and creating the output.

2.1.2. Vocabulary Learning

2.1.2.1. Knowing a Word

Before answering this question, there is a need to clarify the term, 'knowing'. In dictionaries, knowing is simply explained as having information about something. But this simple definition remains incapable to describe such a complex cognitive process. This complex process has been studied by many researchers but Krashen (1981) dramatically changed the direction of the studies by bringing a new perspective to knowing as 'acquisition'.

From that time researchers have studied on the discrimination of learning and acquisition. Initially, Krashen (1981) described learning as a conscious process in a formal instruction while the acquisition is the product of a subconscious process. Learning and acquisition have become a fertile area in search of the answer to the question what it means to know a word. This question has been asked by many and it is fairly challenging to give a satisfying answer to this question. The clearest way to determine if a person knows a word seems to ask if he/she knows the meaning of the word. Here, another question arises: 'Is it enough to know the meaning of a word?'. In his book, Folse (2004) claims that knowing a word is beyond knowing just the meaning of a word and it requires knowing every aspect of a word such as polysemy, connotation, spelling, pronunciation, part of speech, frequency, usage and collocation and defines it as a multi-part task. Similarly, Cronbach (1942) defines the word knowledge as the ability to define it and where to use it, knowing its collocations and using it in everyday life. Richards (1976) handles the issue thoroughly over 8 assumptions on knowing a word, which are:

1.   The native speaker of a language continues to expand his vocabulary in adulthood, whereas there is comparatively little development of syntax in adult life.

2.   Knowing a word means knowing the degree of probability of encountering that word in speech or print. For many words we also "know" the sort of words most likely to be found associated with the word.

3.   Knowing a word implies knowing the limitations imposed on the use of the word according to variations of function and situation.

4.   Knowing a word means knowing the syntactic behaviour associated with that word.

5.   Knowing a word entails knowledge of the underlying form of a word and the derivations that can be made from it.

6.   Knowing a word entails knowledge of the network of associations between that word and other words in language.

7.   Knowing a word means knowing the semantic value of a word.

8.   Knowing a word means knowing many of the different meanings associated with the word.

Over eight assumptions Richards (1976) reflects what a complex task knowing a word is. One problem about learning vocabulary is the gap between receptive and productive knowledge. In other words, which holds the biggest part in word knowledge: knowing it or using it? In this case, knowing just the meaning of a word alone may not be enough and it may require using the word in real context and in suitable situations.

2.1.2.2.   Components of Vocabulary Learning

Since vocabulary learning is the initial phase of language learning process and acts a crucial role in the success of the process, it has several components each of which deserves a lengthy explanation. These components will be introduced under two categories; components belonging to first language learning, components belonging to second language learning. The reason why the components of first language learning are included is that when it's about vocabulary learning, second language learning relies much on first language learning.

Language acquisition of a baby is a phenomenon that scientists are still unable to fully figure out. This process contains several components, but it can be squared away as labelling, categorizing and network building. Labelling is the first input for a baby in vocabulary learning usually done by the parents. Labelling is generally a subconscious act that is submerged into parental speech, but babies manage to discern what is labelled. This labelling process is the first input source for the children and starts to fill the vocabulary pool of them. With time, as the number of labels increase, children start to categorize the labels which are the first phase of contextualization. The study of Poulin-Dubois, Graham and Sippola (1995) shows us that this labelling and categorization processes constitute the scaffold of vocabulary learning in accordance with language learning. The last component of first language learning is network building. After successful labelling and categorizing processes, learners start to build a network. Aitchison (2012) defines the network building process as discovering the relations between words. This process requires high language skills and emerges at the later stages of the learning process. It grants learners the ability to infer the meanings of words on their own by making inferences with the help of the vocabulary network they built.

Second language learning follows nearly the same way with the first language learning but this time with the help or interference of the first language. With slight changes in order or effect, labelling, categorizing and network building are valid components of second language

15

vocabulary learning. With the help of the first language background, learners may start to build network after labelling process or on the contrary first language knowledge may manipulate network building process by false friends. Apart from these components encoding and associating stand out in second language vocabulary learning Thornbury (2006) because these processes work when there is a background knowledge and a mental consciousness level. With the help of the first language background and their present consciousness level, learners can make encoding and association of the words by helping them create their metal lexicon which is defined by Marslen-Wilson et al (1994) as what words sound like and mean for learners.

2.1.2.3.   Incidental and Direct Vocabulary Learning

Language learning is the richest learning area in terms of the learning strategies that it embodies, and inside vocabulary learning has several unique learning strategies. These learning strategies can be grouped into two main categories as incidental and direct vocabulary learning. These approaches constitute the roof of all vocabulary learning strategies. There has been a controversy on the effectiveness of these two approaches and there are several studies indicating the effectiveness of both methods separately. In this part, a contrastive review of incidental and direct vocabulary learning will be presented.

Nagy (1995) describes direct vocabulary learning as focusing on the form and meaning of the words. Direct vocabulary learning is regarded as the traditional method which is mainly based on the memorization of the target words by activating the short-term memory. As it's clear from its name, it involves directly learning the meanings of the words. It mainly relies on the memorization of words by using specific techniques such as repetition and drills that serve the same purpose. For many years, direct vocabulary learning has been used by learners and teachers but has led to some controversies from some aspects. There are several studies that favour the effectiveness of direct vocabulary learning. In their experimental study, Sonbul and Schmitt (2009) collate two approaches and promote the importance of time and effort that is gained with direct vocabulary learning in the teaching of lexical items in EFL classes. Holmes (1934) compares the direct teaching the meanings of unfamiliar words and extensive reading studies to teach vocabulary. At the end of the study, she draws several consequences that show the success of direct vocabulary instruction on incidental vocabulary instruction. It turns out that though it is a traditional approach, direct vocabulary learning is not an old-fashioned one. In most countries, there are standardized tests that contain multiple choice vocabulary questions

from a pre-defined vocabulary syllabus. In such tests, attendees mostly prefer to directly memorize the meanings of words and this strategy works in some ways because here the aim is not to contextually acquire the words or create a mental lexicon but memorize as many words as possible to be successful in standardized tests. Smith, Kilgarriff and Sommers (2008) criticize the government policies on promoting this kind of standardized test and favour the effectiveness of direct vocabulary learning in such tests. Similarly, Tabrizi and Feiz (2016) conducted a study that investigated the success of direct vocabulary instruction and incidental vocabulary instruction in a standardized test and according to the result of their study, the group that used direct vocabulary instruction significantly outperforms the other group. However, direct vocabulary learning is not an approach to be underestimated completely, but it should be implemented into the learning process by taking some issues into consideration such as target group, teaching strategies and purpose of the study.

Incidental vocabulary learning is simply defined by Nagy (1995) as learning vocabulary from the context. In other words, it involves learning words indirectly through high exposure to the language. Here, the keyword about incidental vocabulary learning is 'indirect' which highlights the subconscious nature of it. It is mainly a subconscious process making the learning more permanent. In vocabulary learning, it is highly preferred by learners and teachers because of its advantages and there are several studies showing the advantages and its superiority to direct vocabulary learning (Rashidi and Ganbari 2010, Ahmad 2011, Alipour, Barati and Nasirahmadi 2015). These studies mainly focus on teaching vocabulary through reading experiences. Another study by Shahrzad and Derakhshan (2011) showed the success of incidental vocabulary learning in TOEFL vocabulary test. Huckin and Coady (1999) considered the issue from a different perspective and they reported that vocabulary learning in L1 is mostly incidental and also L2 vocabulary learning in considerably incidental, too. It is obvious that the results of the most comparative studies stress the success of incidental vocabulary learning over direct vocabulary and it has several advantages. First, incidental vocabulary instruction promises permanent learning by triggering long-term memory. Second, it grants the learners the ability to infer the vocabulary from context. In time, learners can guess the meanings of words with the help of the way of thinking that they are accustomed to. Third, it makes vocabulary instruction more inclusive by integrating it into the other skills and by this way making it easier because learners do not have to deal with learning vocabulary as a separate skill. Lastly, it makes the learning process more learner-centred because unlike direct vocabulary instruction which doesn't respect individual differences, incidental vocabulary

instruction promises learners to find their own learning speed and style. It establishes a strong connection between learner and teacher by promoting collaborative work. Though it is highly favourable and has lots of advantages, it has several disadvantages, too. First, it requires hard work for teachers. Teachers need to decide learner levels, choose appropriate context, decide the suitable procedure and foresee the problems. Bensoussan and Laufer (1984) highlighted the same problem and put forward that the contextual information in the context may be unclear. Here, another problem for teachers is wrong inferences. Learners may not infer the meaning of a word correctly and misuse it. Teachers need to be careful about this problem. Also for learners, the beginning levels require much effort till they get accustomed to the learning experience. Second, it requires high exposure to language and high linguistic skills such as inference, association, encoding etc. learners' individual differences show up and teachers need to keep the balance. Lastly, it requires a long-term study to see the results of the study. It is not suitable for short-term result.

According to the report of National Reading Panel (2000), there is a clear need for both direct and incidental vocabulary instruction since they can particularly serve different purposes. What is necessary is to adopt an eclectic method combining both direct and incident vocabulary instruction according to the learner, syllabus and environment.

2.1.2.4. Vocabulary Learning Techniques and Strategies

2.1.2.4.1. Definition of Vocabulary Learning Strategies

Vocabulary learning is not as easy as it seems like memorizing just a set of words. It is much more a complicated process and requires a systematic way of studying. In other words, learners need to develop a habit to study vocabulary according to their learning style. As Khoii and Sharififar (2013) suggest, understanding how our memory works might help us create more effective ways to teach vocabulary. In this point, understanding how our memory works means finding the correct strategy for us. The definition of what vocabulary learning strategy was made by many researchers. Ellis (1985) defines learning strategies as the way that accumulate new L2 rules and automate existing ones. The main aim of these strategies is to fully acquire the target language by finding suitable way for the learner. Graves (1987) makes a similar definition and says strategies are personal plans of learners to expand their vocabulary over time. Wenden and Rubin (1987) define learning strategies as behaviours that learners adopt to regulate their learning process. In time, the definition of learning strategy is started to fit in a shape and one of the more detailed definitions was made by Oxford (1990). She defines learning

strategies as "specific actions taken by learners to make learning easier, faster, more enjoyable, more self-directed, more effective, more transferable to new situations". Also, she points out the changeable nature of strategies according to the individual differences of learners. O'malley and Chamot (1990) contributed to Wenden and Rubin (1987) definition and added that strategies are special thoughts that help learners comprehend new information. Nation (2001) tried to narrow the definition of learning strategy by putting forward four specifications of a strategy. First, the strategy should be consciously chosen. Second, they need to be chosen by the learner. Third, they need to be systematic and have several steps. Fourth, they need to have a positive impact to the learning. Cohen (2014) also stressed that strategies are language processes consciously selected by learners. What makes a way of study a strategy is its conscious selection by the learner. As can be seen the definition of learning strategies started broadly and narrowed down in time. The unquestionable point here is the great importance of finding the appropriate strategy for learners.

2.1.2.4.2.   Classification of Vocabulary Learning Strategies

Following the shift on the teacher-centred instruction to the learner-centred instruction, learning strategies started to gain importance and increased in number. The term strategy is a natural outcome of individuality and this led to the diversity and abundance of learning strategies. This diversity created a need to classify vocabulary learning strategies and starting in 1970s researchers conducted research on this issue Schmitt (1997). Hereafter, many researchers studied the classification of vocabulary learning techniques. One of the most comprehensible studies on these studies was conducted by O'malley and Chamot (1990). They grouped vocabulary learning strategies into three main groups: metacognitive, cognitive and social-affective strategies. These three groups were interrelated with each other and acted as a supplementary factor for one another in the learning process. Metacognitive strategies regulate and plan the learning process by taking effective steps. Cognitive strategies emerge in acquiring new information and social-affective strategies help learners support and improve the process by interpersonal relations. Oxford (1990) makes a more detailed classification and groups the strategies under two main categories as direct and indirect strategies. Direct strategies include memory, cognitive and compensation strategies; whereas indirect strategies are metacognitive, affective and social strategies. Direct strategies are the ones which are directly related to the language acquisition process through specific tasks and situations. With memory strategies

learners retrieve information, cognitive strategies help them encode the input they get, and compensation strategies encourage them to use the language. Indirect strategies emerge in the management of learning with the help of metacognitive strategies by coordinating the process, effective strategies by regulating the emotions and social strategies by learning to interact with others. Another comprehensible study is conducted by Schmitt (1997). His main groups are discovery and consolidation strategies. Discovery strategies play a role in discovering new words and have two subdivisions: determination strategies and social strategies. Determination strategies are used to thoroughly discover the new words and with social strategies, it is aimed to improve the input gathered by determination strategies. Consolidation strategies are divided into four subdivisions: social, memory, cognitive and metacognitive strategies. Unlike discovery strategies, consolidation strategies are used in remembering the word that is learnt. Another study by Oxford and Crookall (1990) offers three main categories for vocabulary learning strategies. Decontextualizing techniques which are wordlists, flashcards and dictionary use; semi-contextualizing techniques which are word grouping, word or concept association, visual imagery, aural imagery, keyword, physical response, physical sensation and semantic mapping; fully-contextualizing techniques which are reading and listening practice, speaking and writing practice. They also offer an adaptable technique, that is, structural reviewing which is applicable to all three groups above.

(O'malley, and Chamot, 1990)	**Metacognitive**		**Cognitive**		**Social-Affective**
(Oxford, 1990)	**Direct Strategies**			**Indirect Strategies**	
	Memory			Metacognitive	
	Cognitive			Affective	
	Compensation			Social	
(Oxford and Crookall, 1990)	**Decontextualizing Strategies**		**Semi-Contextualizing Strategies**		**Fully-Contextualizing Strategies**
	Wordlists, Flashcards, Dictionary Use		Word Grouping, Concept Association, Visual and Aural Imagery, Keyword, Physical Response, Physical Sensation, Semantic Mapping		Reading and Listening Practice, Speaking and Writing Practice

2.1.3. Vocabulary Teaching

2.1.3.1. The Nature of Vocabulary Teaching

Vocabulary teaching has always been one of the main concerns of ELT, but its importance and function have changed in the course of time. At the beginning of language instruction, there was a more grammar-based syllabus that prioritized the importance of teaching grammar but with time this grammar-based syllabus has yielded to a vocabulary-based syllabus. Studies started to put forward the importance of teaching vocabulary and as a result language instruction has turned out to be more functional and practical because, for a long time, grammar-based syllabus prevented learners from being successful in oral production. Intense grammar instruction caused learners to overestimate the grammar rules and they stuck with forming grammatically correct sentences in oral production. Vocabulary based syllabus broke this obstacle to some degree. Learners focused on finding the correct words rather than forming grammatically correct sentences in production which makes it easier to speak. Wilkins (1972) makes a great diagnosis and puts forward that "Without grammar very little can be conveyed, without vocabulary nothing can be conveyed."

Vocabulary teaching has a completely cognitive nature which allows learners to use nearly all cognitive functions in the process. It starts at the very beginning of the process and never ends. It appeals to both conscious and subconscious brain. Also, it naturally follows a way from short-term to long-term memory usage. Short-term memory is the starting point of vocabulary learning. It holds a limited number of words and for a limited time. With some specific cognitive studies, words can be moved into long-term memory which offers a permanent learning. The general aim of vocabulary teaching is to introduce words and move them from short-term memory to long-term memory. This process is supported and interfered by many factors that need to be reckoned such as motivation, anxiety, individual differences, teaching techniques, etc. Along with its cognitive nature, vocabulary teaching is largely interactive, too. As it happens in the learning of native language, word circulation is one common interactive technique in second language acquisition. It is a fact that people are subconscious teachers who teach others unintentionally. With the help of this word circulation between people, they create a subconscious background of words which makes it easier to acquire the words later. It seems that vocabulary teaching started to find the place it deserved and turned out to be one of the main concerns of language instruction.

2.1.3.2. Components of Vocabulary Teaching

Vocabulary teaching is a field that has several teaching techniques because both learners' and teachers' individual differences increase the number of the techniques used. So, this abundancy laid the way open for the effective vocabulary instruction researches. As a result of these studies, there occurred some compromised components of effective vocabulary instruction. The LEAD21 (Literacy Equity Acceleration Differentiation) project of Indiana Department of Education defines these components as the agents that take vocabulary instruction beyond just teaching the description of words. The influential study of (Texas Education Agency. 2002) concludes that an effective vocabulary instruction has five main components. According to the result of this study, an effective vocabulary instruction should (a) encourage learners in reading process, (b) expose learners to an oral language which is high in quality, (c) promote word consciousness, (d) provide explicit instruction for specific words and (e) offer independent word-learning strategies which allow modelling and instruction. Another study by The IRIS Center (2012) offers four components for an effective vocabulary instruction: (a) selecting the essential words, (b) explicitly defining and contextualizing the words selected, (c) helping students actively engage into the process of information, (d) providing multiple exposures to the words. Similarly, National Association of Elementary School Principals (2015) lists four components of an effective vocabulary instruction. The first is word connection in which learners are expected to associate words with what they are already familiar. The second is significance which means that the definition of the target words should be significant for the learners' level. The third is context clues that are provided by teachers to make learners easily encode and associate the words. And the fourth is the word-rich environment which favours that learners should encounter unfamiliar words naturally and as much as possible. As stated above, vocabulary instruction is a rich area in strategies, techniques and its components.

2.1.3.3. Challenges in Vocabulary Teaching

Vocabulary instruction is a problematic process for both learners and teachers; problematic for learners because it looks simple, but it is far more complicated and problematic for teachers because the process requires several strategies and techniques depending on the individual differences of learners. Such a problematic process incorporates several challenges

to be taken into consideration. These challenges make the process difficult for both learners and teachers and need to be handled systematically to exploit the process to the full.

One of the greatest challenges of vocabulary instruction is what to teach and how to teach Amiryousefi and Dastjerdi (2010). Pre-methodological period of vocabulary instruction did not have a systematic and scientific way of teaching vocabulary. The question 'what to teach' was mainly based on the vocabulary that instructors had chosen for the learners to be able to understand the reading passages in second language. After the increase in methodological perspectives vocabulary instruction was re-shaped and the vocabulary to be taught was re-designed. The range of vocabulary to be taught started to be narrowed down. For example, dictionaries assembled lists of the words that are most commonly used in English language (The Longman Communication 3000, Oxford 3000tm). Also, relevancy, which is a factor in choosing vocabulary according to the level, background and field of the learner, became a significant element of vocabulary curriculums. For teachers, challenge lies in choosing the appropriate vocabulary for the learners. In fact, beyond teachers, it is the main responsibility of curriculum developers and coursebook writers. A well-prepared vocabulary selection that is relevant with learners' condition contributes to the process effectively whereas inappropriate vocabulary selection hinders the learning. Vocabulary selection creates another challenge: how to teach? This is a big challenge for teachers because it is crucially important in vocabulary instruction to adjust the time allocated for vocabulary teaching, to choose appropriate strategies and techniques, to help learners contextualize the vocabulary and to monitor learners' development to prevent misconceptions. In this process, teachers' main challenge is not to teach vocabulary directly to the learners considering the points below but to teach learners the nature of vocabulary learning by making them gain the metacognitive way of vocabulary learning. Similarly, in his study, David (2010) regards the little time devoted in vocabulary instruction in classes as a challenge and stresses the challenge of teachers in identifying which words are important for learners to learn. Also, Johnson and Steele (1996) point out that there are so many words to be taught but so little time to do that in classrooms. Also, they add that the lack of vocabulary strategies that can be a solution for time problem pops up as a big challenge for both teachers and learners. According to Schmitt (2008) the vocabulary size that is necessary in reading of English language is around 8000-9000 and 5000-7000 in oral production. Indicated by these statistics, he puts forward that vocabulary size and the depth of vocabulary knowledge are two main challenges of vocabulary instruction which learners often fail to meet. Jalongo and Sobolak (2011) agree with the notion that vocabulary

size and depth are important challenges and they offer that home and school environment are two agents that have a strong influence on vocabulary size and depth. Along with this, they favour that semantic confusion that learners experience at the beginning stages of vocabulary instruction is an important challenge to be dealt with. Another extensive study by Fazeli (2012) lists 37 challenges in vocabulary acquisition by reviewing the studies on vocabulary acquisition some of which are; synonym challenge, ambiguity in vocabulary acquisition models, lack of motivation tools for beginner learners etc. Lastly, Saengpakdeejit (2014) determines the main vocabulary challenges of Thai learners which can be summed as the main universal vocabulary challenges of English language learners; (a) discovering the meaning of unknown words and (b) retaining learnt words in long-term memory.

Since vocabulary learning is mainly an individual process, there are lots of challenges that depend on the characteristics of learners. The above-mentioned challenges can be counted as universal challenges in vocabulary instruction that need to be considered by teachers.

2.1.3.4. Methodological Perspectives to Vocabulary Teaching

2.1.3.4.1. Language Teaching Methods

The development of methodology in language teaching dates back to 1930s in which language learning did not have a specific methodology but mostly relied on the principles of main theories like behaviourism and cognitivism. In time, language teaching required specific principles and new approaches following the principles of main theories above started to emerge. The shift from grammatical syllabus to communicative syllabus caused to generate more approaches.

All theories and approaches gave a wide coverage to vocabulary teaching since it is one of the main units of both literal and communicative instruction. The importance of vocabulary instruction was highlighted at the very beginning and special drills were included in each approach. All theories regard the lack of vocabulary instruction as an obstacle in language instruction and that is to be enriched.

The first systematic methodological approach to language instruction is regarded as Grammar Translation Method. In GTM, the main purpose of language instruction is the proficiency in reading the literature of target language. The main criteria for success in GTM

are the ability to translate the texts. Thus, primary skills to be developed are reading and writing. Oral communication is not the focus of language instruction (Larsen-Freeman and Anderson, 2013). Since the main goal of GTM is to read in the target language and the main criteria of success are translation, vocabulary plays a significant role in the teaching process. Vocabulary is introduced literally by bilingual word lists. Dictionary study and memorization are main vocabulary learning strategies in GTM Richards and Rodgers (2014). Although it is an outdated approach, GTM is still used as a practical approach to learning environments where translation is the main objective, not communication (Sapargul and Sartor, 2010).

Beginning with the 1910s through 1920s, there occurred a need to use the language for communicative purposes effectively. GTM did not answer this need and The Direct Method began to shape along with this notion. Still, keeping the influence of GTM, DM favoured that language is primarily speech. Also, reading skill is another important skill which is to be mastered along with speaking. Unlike GTM, DM criticizes literal vocabulary instruction with memorization and bilingual word lists and offers a natural way of learning by using words in full sentences. This principle can be regarded as the basis of contextual vocabulary instruction. DM emphasized vocabulary instruction over grammar which led to a special interest in vocabulary instruction. Methodologist of DM made the first efforts to create a scientific basis to vocabulary instruction and with DM, vocabulary was accepted as an important aspect of language instruction and required a deeper scientific study other than simply introducing the literal meaning of words (Zimmerman, 1997).

The Audio-Lingual Method can be regarded as the first language learning approach that is based on the principles of modern linguistics and is a practical approach emerging through World War II with the aim of teaching language communicatively in a short time. It is based on behaviourism, thus accepts language learning as habit formation. What is unique about ALM is that it acts as a bridge between traditional and contemporary. ALM defines the main objective of language learning is to be able to communicate in the target language. It relies on the teaching of structures in a process in which good habit formation is achieved by certain repetition drills. In this system, the structural instruction is emphasized over vocabulary instruction. First, learners focus on structures and then there comes the vocabulary instruction. Dialogues are used as an effective tool and vocabulary is introduced through dialogues. Learners work on dialogues thoroughly and teachers use certain drills on dialogues such as repetition, backward build-up, chain, question-answer, transformation and substitution. Transformation and substitution drills mainly focus on the improvement of vocabulary knowledge. But ALM underestimates the

vocabulary over grammar, thus vocabulary is kept the minimum in the phases where learners study on sounds and grammatical patterns (Larsen-Freeman and Anderson, 2013).

Originated by Caleb Gattegno, The Silent Way emerged as a reaction to ALM's behavioural perspective to language teaching and adopted a cognitive approach to learning. Rather than forming a habit formation, SW tried to help learners to develop an 'inner criteria' in language learning process in which they can self-control their progress with the help of their inner criteria. SW assumes that learners already come with an experience of learning language, what is necessary is to help them remember their experience. The syllabus is composed of linguistic structures and there is a special interest on sounds because SW favours that learners need to learn the melody of language at the very beginning. So, in the beginning phases, pronunciation is praised, and vocabulary is restricted. SW tends to restrict vocabulary in the teaching process. In the introduction of new vocabulary, SW uses unambiguous situations and structures that are already mastered because it adopts a way from known to the unknown in teaching process (Gattegno, 2010).

Total Physical Response by James Asher combines the cognitive and kinaesthetic way of learning in language instruction. It simply follows a listen-respond sequence. The ultimate aim of TPR is to get learners speak in the target language but before speaking phase learners are expected to develop an understanding of the target language. This is achieved by reducing the stress of learners by activating their physical participation in the process. Learners are not expected and forced to speak at the beginning stages and they speak when they feel ready. Modelling is an important tool in TPR. Teachers issue the commands and learners perform the actions. In TPR imperatives have a significant place and the vocabulary instruction is mainly embedded in imperatives. Grammar and vocabulary are emphasized over other language skills because they act as the skeleton of language instruction. TPR opposes the memorization of vocabulary but it promotes the memorization that is later activated by actions which activate the right hemisphere of the brain and facilitate permanent learning. Also in vocabulary instruction, what matters is teaching chunks, not word by word instruction (Asher, 1981). In this way, learners associate the words together and perform the actions that are associated with the meaning of the words.

Community Language Learning approach, as can be understood from its name, praises the notion of community in the learning environment and accordingly promotes interaction. Its basis depends on counselling approach and natural approach. CLL tries to get learners speak in the target language. To do this, CLL emphasizes that learners need to feel secure and build a

relationship during the learning process. The authority of teacher is regarded as a threat to this secure atmosphere of the learning environment, so teachers act as a background counsellor. It is accepted that when learners know the limits of the learning process, they feel more secure. Thus, the syllabus is composed of what learners know. Vocabulary is studied by chunks and it is based on what learners have studied before. Although it can be counted as a contemporary approach, it permits the use of native language and vocabulary is introduced by literal explanations of words. CLL attempts to make the meaning clear in every case and in vocabulary instruction CLL uses bilingual word lists to make meaning clear.

Suggestopedia, originated by Georgi Lozanov, was an effective method during the 1980s. Suggestopedia emphasizes the psychological nature of learning process. It highlights the importance of lively learning environment and learners' psychology. Unlike CLL, the teacher is an important figure in learning environment and learners are expected to trust teachers' authority because teachers act as a tool to help learners break the barriers they have built in their learning experience. Vocabulary is presented by teachers in texts and important words are emphasized in bold so that learners can establish a connection between parts and the whole. Teachers do not dwell on vocabulary but expect it to be subconsciously acquired by learners. Suggestopedia tries to make the meaning clear by using literal translations. Accordingly, it is intended to acquire as much vocabulary as possible in this method (Larsen-Freeman and Anderson, 2013).

Communicative Language Teaching embodies the principles of most contemporary communicative methods. Its ultimate aim is, as its name indicates, to make language a communicative device. To do so, it relies on the authentic language, which is described as the natural language in life itself, not a prepared context for learning process but a real one. In language learning process, the communicative purpose of the language is praised while mastery of the language forms is regarded less important. Learners are expected to express themselves without fear of making errors because errors are regarded as a natural outcome of the learning process, thus tolerated. Since communication is the main purpose, vocabulary has a crucial importance in CLT, in that speaking performance highly depends on learners' vocabulary knowledge. CLT does not have a fixed vocabulary syllabus but it lets an automatically generated vocabulary formed according to the need of learners and that is relevant to their interest (Littlewood, 1981).

Content-Based Instruction which attracted great attention worldwide offers a fast and effective language learning process by narrowing the process down the specific purposes.

Teaching is built according to the learners' needs, levels and their previous knowledge. CBI varies and enriches the scope of language learning and it lets learners and teachers shape learning process depending on the skills and purposes (Crandall, 1999). For vocabulary instruction, CBI is regarded as one of the most effective methods because vocabulary is built according to the need of learners, accordingly, they will be familiar with the vocabulary or there will be contextual clues in the learning process to help them convey the meaning.

Task-Based Language Teaching emerged as a systematic approach which has an individual nature letting learners see and decide their performance. TBLT strongly emphasizes a functional language use relying on the 'tasks' (Ellis, 2009). The teacher prepares the tasks with clear instructions and learners complete the task by writing a report at the end including what they've learned. The final report is an important tool for the teacher to know about the learning process and gives feedback about what to work on. In TBLT, vocabulary is praised over grammar in tasks and vocabulary is mainly studied in pre-task section (Ellis, 2003). Also, TBLT converts the nature of vocabulary learning from translation and memorization to a collaborative and interactive one with the help of tasks (Sarani and Sahebi, 2012).

2.1.3.4.2. Vocabulary Teaching Methods

2.1.3.4.2.1. The Lexical Approach

The Lexical Approach can be regarded as the first comprehensive vocabulary teaching approach. Before LA, language teaching methods accepted vocabulary learning as a cognitive process based on the acquisition or learning or the words and using the words in a context. LA shared the same principle, but it transformed the notion of word learning into 'chunk' learning. Lewis and Gough (1997) first described The Lexical Approach around the notion that 'language is mainly the multi-word chunks, not as traditionally described grammar and vocabulary. These chunks (lexical phrases) are pre-fabricated multi-word phrases such as compound words, phrasal verbs, collocations, functional phrases, idiomatic or fixed expressions (Harmer, 1991). LA focuses on the teaching of chunks rather than the words alone. As most contemporary methods, LA rejects the idea that language mainly consists of grammatical structures. At a first glance, it may seem that LA promotes grammar over vocabulary since the chunks contain not only words but grammatical structures, but LA integrates grammar subconsciously into the chunks. In other words, LA highlights a lexicalized grammar rather than grammaticalized lexis.

Here, the focus is on the chunks, not on grammar which enables the deduction of grammar subconsciously. Another achievement of chunk-based learning is the fluency in speaking performance. It has been widely discussed that the traditional grammar-vocabulary instruction has considerable disadvantages on speaking production, especially on fluency as Krashen discussed in his acquisition and learning hypothesis. LA's chunk-based instruction is an effective way of speaking fluency since it triggers a subconscious automatic cognitive process by shortening the processing time in mind. The idea of item learning, rather than the rule learning is the key feature of LA in term of the processing time of speaking production in mind. LA adopts a semantic syllabus which means syllabus is formed according to the meaning and based on a lexical focus. As stated above, LA regards that meaning is encoded to words, not grammar. Accordingly, this means that using the most frequently used words in the target language is a good way of forming syllabus because meaning can be best conveyed through these words which are called high-frequency words (Thornbury, 2006).

2.1.3.4.2.2. The Literal Technique

Though it is not a systematic technique, The Literal Technique has been used widely and effectively since the beginning of language teaching. It involves the memorization of native language equivalents of the target language words. The advantages and disadvantages of The Literal Technique have been discussed for ages and each method or approach set their principles for this technique. Though it lacks pedagogical value for researchers, it deserves to be discussed in this study because, with the emergence of Web 2.0 and the spread in individual learning strategies, it started to gain importance again. Before inspecting the latest position of Literal Technique, it would be beneficial to look at its historical position. The Literal Technique is regarded as the ancestor of vocabulary instruction. It had a crucial position in Grammar Translation Method. In GTM, vocabulary instruction comes after the grammar and it is performed with bilingual word lists. For ages, the literal technique dominated the vocabulary instruction. After the emergence of communicative approaches, literal technique yielded its position to contextual approach, but the effect of literal technique continued for years and it turned out to be a technique in contextual approach.

As the learning techniques started to be individualized, learners have looked ways for the best learning experience that is suitable for their individual differences. Methodological rules and principles were ignored, and instead faster and easier ways of learning language started to gain acceptance. The literal technique was the one that was affected from this

tendency most because, though it is methodologically heavily criticized, it has turned out to be a language learning habit for learners with its satisfactory and instant results. Flashcards which are the most significant tool of literal technique gained considerable importance and were approved by both learners and teachers. Mobile apps for language learning which were mostly developed by users, not language experts, ignored methodological principles and adopted pragmatic principles such as learning easily and learning faster. In this perspective, the literal technique has shown up again in the learning process.

2.1.3.4.2.3. The Contextual Approach

The literal technique had been very popular in vocabulary instruction before the emergence of communicative approaches. At the beginning, the literal technique offered an easy instruction and it was time-saving. But with time, many researchers conducted significant researchers on the disadvantages of word memorization and accordingly communicative approaches disapproved direct word memorization and favoured a contextual word learning. The focus in word learning shifted from memorization to inference. In their study, Cunningham, and Arthur (1981) described the contextual approach as learning to make inferences with context clues to be able to infer the meaning of the word from context. As the studies on contextual approach had increased, there occurred a concept of contextual vocabulary acquisition. Rapaport and Kibby (2010) defined contextual vocabulary acquisition as the reader's ability to figure out the meaning of a word from context using the clues in the context without getting help from external sources such as a teacher or from a dictionary. Here, with the contextual approach, world learning yielded to word acquisition because contextual approach promised a metacognitive process including guessing, inferring and verifying.

Contextual vocabulary acquisition has become the core concept of researchers in vocabulary instruction. Many studies were conducted, and the success of contextual vocabulary acquisition was proved in many studies which will be discussed in the literature review section. As mentioned above, CVA has a metacognitive nature and relates to many conditions such as learner's level, background knowledge, inference ability, textual knowledge, etymology, morphology, lexicology, grammar and so on. Learners are expected to meet all these conditions to be able to infer the meaning of a word. When it is to infer the meaning of a word, the content of the text help learners to trigger their background knowledge about the topic. Learner remembers the similar words from his/her prior knowledge. He/she looks at the root, suffix, prefix or morpheme of the word. Also, sentence grammar may help learner about the meaning

of the word. All these procedures end up with an inference that is either correct or not. At first glance, this procedure looks tiresome, time-consuming and not guaranteed but in time it grants learners an insight about inferring the meaning of words. As Rapaport and Kibby, (2002) stated people know more words than they are explicitly taught. This statement is the result of a successful contextual vocabulary acquisition.

2.1.4. Mobile Assisted Language Learning

Behaviourist theory has been influential for many years in the field of language education as it is in every area. For many years Grammar Translation Method has maintained its existence by adopting the principles of behaviourist theory. After this period, language education has undergone some radical changes to this day. The first of these changes occurred in the transition from behaviourism to cognitivism. This controversial transition process has been completed with the victory of cognitivism. But the victory of cognitivism did not last long, constructivism took the place of cognitivism. In addition to these theoretical changes, technical changes have also been experienced. The first of these technical changes was the use of computers in language education. Computers have caused significant changes in the language education process. With the use of computers, significant opportunities have been obtained in terms of material use and time allocated to language education. Another radical change is that mobile phones have taken the place of computers. Mobile use in language learning caused the emergence of Mobile Assisted Language Learning. Valarmathi (2011) defines MALL as an approach to language learning that is assisted or enhanced through the use of mobile phones. Two keywords in this definition here constitute the basis of the MALL; to assist and to enhance. Miangah and Nezarat (2012) expand the scope of MALL and add new attributes to MALL such as personalized, spontaneous, informal and ubiquitous. Also, Czerska-Andrzejewska (2016) stresses the borderless nature of MALL in terms of time and place. Looking at these definitions, it can be concluded that MALL is a personalized approach which removes the border of time and place by assisting teachers and learners to enhance the learning experience.

2.1.4.1. From CALL to MALL

After the invention of the first private computer, computers were started to be used in daily life and inevitably for educational purposes. It did not take long for computers to be used

in language learning. The use of computers in language learning resulted in the emergence of Computer Assisted Language Learning. Levy (1997) defines CALL as "the search for and study of applications of the computer in language teaching and learning". Jones and Fortescue (1987) find this traditional definition of CALL as inadequate and make a broader definition of CALL as using computers which are versatile teaching and learning tools for both teachers and learners to be used in and out of the classroom for a variety of ways and for any educational purposes. In his distinctive study on CALL, Warschauer (1996) mentions three types of CALL; behaviourist CALL, communicative CALL and integrative CALL. As its name signals, behaviourist CALL adopts the principles of behaviourism and the function of computers is mainly on drill and practice exercises. Communicative CALL, emerging through 1970's, rejects the use of computers only for practising purposes and stresses cognitive nature of computer use in learning by activating learners' cognitive skills and enhancing interaction. Integrative CALL expanded the scope of the communicative call to every skill and disciplines. The objective of integrative CALL is to integrate various skills and disciplines by encouraging the authentic use of language. Along with this methodological categorization, CALL can be divided into three periods according to the use of computers which are computers as a tutor, computers as stimulus and computer as tool respectively. In a very short time, CALL favoured by both teachers and learners and was used increasingly. It has worked very well in engaging, studying and activation parts of the learning process. With its time-saving, rich, productive, easy and effective nature, it has turned out to be an indispensable part of language education. CALL caused radical changes in curriculums and syllabuses in terms of objectives, durations, material use and evaluation because CALL deeply affected every phase of language learning process. Everything had been going pretty well for computers until 2007 in which Steve Jobs introduced the first fully functional smartphone. Before iPhone, there were smartphones, but iPhone is regarded as the first smartphone that has advanced computing abilities and other features that computers can do. After the introduction of iPhone and Google's Android operating system, smartphones have turned out to be small devices that are capable of anything that a computer can do. Moreover, they are smaller, affordable and more functional than a computer. In a very short time, Smartphones have taken the place of computers. According to the study of Tuik.gov.tr. (2017), while the percentage of mobile phone availability in households in Turkey is 53,7 in 2004, the percentage rises to 96,9 in 2016 and the desktop computer availability increases from 10,0 to 22,9 in the same years. This shift in technology inevitably echoed in education and MALL started to be favoured by teachers, learners and researchers. But still, CALL is predominant in terms of academic studies. While the search results of the term 'Mobile Assisted

Language Learning' gives 14,600 results for the year 2017, the search result of the term 'Computer Assisted Language Learning' is 26,300 for the same year in Google Scholar. On the other hand, increasing application count in Google Play (30,000 in 2010; 2,800,000 in 2017) shows that mobile application is increasingly being used in every field of life.

2.1.4.2. Mobile Learning

Mobile learning, mainly shortened as m-learning, has been used since the integration of mobile phones into education which dates back to late 1970's. Mobile learning was divided into two distinct periods; before smartphones and after smartphones. The invention of smartphones has radically changed the nature of mobile learning. Before smartphones, due to the restrictions of mobile phone use, mobile learning remained uncommon, unaffordable and inflexible. But with smartphones, mobile phones have turned out to be versatile devices and this radically changed the nature of mobile learning. After smartphones (2007), mobile learning gained great momentum in education and academic studies. Google Scholar lists 3,960 results for the keyword "mobile learning" from the beginning to 2006 in which one year before the emergence of fully functional smartphones. Similarly, between 2006 and 2017 Google Scholar lists 22,500 results for the same keyword which indicates that the emergence of smartphones granted significant importance to mobile learning. The most distinctive and detailed description of mobile learning made by Sharples, Taylor and Vavoula (2010). In their study, they defined mobile learning as an approach that significantly differs from current theories of the classroom, accounts for the mobility of learners, cover both formal and informal learning, theorise learning as a constructive and social process, analyse learning as a personal and situated activity mediated by technology. This broad definition successfully reveals all the aspects of mobile learning. Besides this definition, Traxler (2007) put forwards ten characteristics of mobile learning as "personal, spontaneous, opportunistic, informal, pervasive, situated, private, context-aware, bite-sized and portable". Mostly, all these factors are necessary to conduct a successful mobile learning process. Since mobile learning highly depends on the use of technology, it requires special attention not only to educational principles but also technical details, too. In line with this perspective, Naismith and Corlett (2006) put forwards some critical factors for a mobile learning project to be successful which are; access to technology, ownership, connectivity, integration and institutional support. We can see the best example of

the multi-disciplinary approach in mobile learning since it is related to education, technology, and several environmental partners.

2.1.4.3. Autonomous Learning

Learner autonomy started to be studied increasingly after the emergence of communicative and constructive approaches. First of all, there is a need to define what autonomy is. Many researchers attempted to define autonomy and similar definitions were made. One of the most detailed definitions of learner autonomy was made by Littlewood (1996). He defined autonomy as the composition of willingness and ability and categorized autonomy under three parts; autonomy as a communicator which means using the language communicatively, autonomy as a learner which means the ability to engage independent work and autonomy as a person which is the ability to create personal learning context. Autonomous learning can be regarded as the basis of individual, personalized and constructive learning. Autonomous learning is roughly learners' taking control of their learning process. The question here is to what extent? Should this process be fully self-directed or covertly supervised? Since autonomous learning is a significant concept of mobile learning, this question is valid for MALL, too. The range of learner autonomy generally depends on the level, age and motivation of learners and convenience of learner environment. The role of the learner autonomy in MALL will be thoroughly discussed in The Influence of MALL on language teaching section.

2.1.4.4. Web 2.0

Web 2.0 is one of the most significant concepts of MALL which grants smartphones a comprehensible computing ability and practicability. The emergence of Web 2.0 caused radical changes in internet use and accordingly on learning and teaching strategies. In line with the new features that was generated with Web 2.0, new techniques and strategies were developed and adapted to contemporary approaches. Web 2.0 has been the focus of many academic studies and the first and well-accepted definition of Web 2.0 was made by O'reilly (2005) in a brainstorming session of a conference as a new network platform that spans all connected devices by letting individuals provide their own data and services to this new platform. Before giving more details about Web 2.0, there's a need to take a look what was it like before Web

2.0. The period before Web 2.0 is named as Web 1.0. Web 1.0 started with the use of the Internet and it has a one-way interaction, from provider to user. The user interaction of Web 1.0 was very limited, and it had a static and single-directional nature. The main usage of Web 1.0 was to publish and provide information to users. The transition to Web 2.0 was a revolution in the Internet world, it completely changed the nature of web usage and perception. The main point that Web 2.0 gifted to the Internet community was the user interaction. Unlike Web 1.0's read-only structure, Web 2.0 granted users to add information, make changes and contribute to the web contents. Another important revolution of Web 2.0 is peer to peer connection, which ended up with the emergence of online communities and social networks. Also, Web 2.0's user-friendly and updateable structure attracted users to take part in Internet communities. In a very short time, these innovations affected educational systems by generating new concepts such as individual or personalized learning, autonomous learning, online learning, situated learning and so on. All these concepts had a significant impact on educational principles and mostly turned out to be important contributions. Web 2.0 brought several contributions to learning and teaching process. First, it offered a vast amount of material use with the help of its sharing facility. Teachers all around the world can share their materials with each other. Second, it removed the boundaries of school and time which reflected to education as anytime and anywhere principle. Third, it helped teachers to evaluate learners easier, faster and more accurately and gave the learners the opportunity to self-evaluate. Also, the evaluation type shifted from product-based to process based. Next, learners had the opportunity to find their learning style and learn how to learn by learning how to construct a knowledge. Finally, the enhanced learner interaction enabled the learner to help and learn from each other and be a part of a learning community. The contributions of Web 2.0 to education is countless because of its updated and dynamic structure.

2.1.4.5. Components of MALL

2.1.4.5.1. Mobile Devices

Mobile devices are regarded as the primary tool of MALL. Simply mobile devices are 'handheld' computers. Viswanathan (2017) describes seven characteristics of a mobile devices which; have the ability to connect internet via Wi-Fi or cellular data, have battery operated structure, let information input by a physical or onscreen keyboard, have a small size and weight to be carried with one hand, have touchscreen interface, have the ability to connect and

download information from the Internet and perform wireless operations. Mainly, there are four types of mobile devices; mobile phones, tablets, e-readers and PDAs.

2.1.4.5.1.1. Mobile Phones

The history of mobile phones can be divided into two periods; before smartphones and after smartphones because smartphones completely changed the mobile phone perception of the facilities they promise. Before smartphones, mobile phones were basically used to make a call and send text messages. They did not have complex structures or extensive computing abilities. However, they were used widely for educational purposes. Despite their limitations, many studies were made on language learning using the mobile phones as a teaching tool. Mostly, texting facility was used as the main tool in language learning studies. Anyway, along with the high demand, cell phones had many disadvantages in learning process. First, they were not affordable to buy; cell phones were expensive devices thus they targeted a limited range of learners. Second, they did not have a user-friendly structure and learners were expected to have a basic knowledge to use cell phones which, again, narrowed down the target audience. Third, their limited functions and inflexible structure made it difficult to integrate into a curriculum. The curriculum needed to be designed in line with the facilities of cell phones. But the emergence of smartphones eliminated much of the disadvantages of traditional cell phones and made mobile learning more sophisticated. Smartphones radically changed the perception of mobile phones with the facilities they offer and other utilization advantages. They differ from cell phones in terms of functionality, camera, purpose and cost. They are regarded as portable computers because they are capable of any computing ability that computers can do. They won the favour of people in a very short time and turned out to be one of the top-grossing industries. According to the listing of Gsmarena.com. (2017), currently, there are 108 smartphone manufacturers and 3,921 smartphone models in the world. This great demand for smartphones instantly affected education industry shortly after the first fully-functional, user-friendly smartphone had been introduced in 2007 by Steve Jobs. In education, smartphones offered everything a computer can do, moreover eliminating the disadvantages of computers such as carrying problem, expensive prices, short battery life and lack of easily accessible software platform. Along with all these advantages, smartphones generated one big problem for human beings which is called 'smartphone addiction'. Lin et al (2015) define smartphone addiction as the excessive use of smartphones that consists of four components; tolerance, withdrawal,

compulsive symptoms and functional impairments. Many studies came up with the same conclusion that majority of people experience smartphone addiction. The reflections of this addiction to education will be discussed at The Influence of MALL on Language Teaching section.

2.1.4.5.1.2. Tablets

Tablets are the second most common mobile device after smartphones. The main distinction what differs a tablet from a smartphone is their size. Generally, tablets are mobile devices that run under a mobile operating system, can be used with one or two hands, have no physical keyboard and are 7 inches or bigger. Tablets are capable of anything a smartphone can do with one exception; SIM support. Some tablets can support SIM function but the majority of tablets lack SIM support. Like smartphones, users can install applications to tablets and use the other functions of smartphones in a synchronized way as long as they use the same operating system and same account. In education, especially for reading purposes, tablets are preferred to smartphones because of their size which makes reading easier and more functional. Also, the virtual keyboard of tablets functions better than smartphones which are also favourable for writing purposes.

2.1.4.5.1.3. E-Readers

E-Readers are handheld mobile devices designed for reading purposes of publications such as books, magazines, newspapers or any written documents. Before the emergence of tablets, e-Readers were very popular for readers with the facilities they offer. They include the digital copies of written documents letting users read, take note, highlight, write a comment on digital copies of documents. The most important facility of e-Readers is their storage capacity. Because of the text-based structure of digital documents, e-Readers let users store a large collection of digital documents. Some leading e-Readers such as Amazon's Kindle and Barnes and Noble's Nook and Sony's Reader can connect to a network via wireless and let users download data. However, after the emergence of tablets, e-readers started to lose favour because tablets offered nearly the same facilities, and more than e-Readers can do. Though e-Readers are better designed for just reading purposes, tablets offered more capabilities than e-Readers which resulted in disfavour of them. e-Readers were not used much in education because of

their high prices and limited usage. They could only be used for reading purposes and before they become widespread, tablets emerged and gained acceptance by language learners.

2.1.4.5.1.4. PDAs

A PDA, the abbreviation of Personal Digital Assistant, is a handheld mobile device that can function as a telephone and computer with networking facilities. PDAs can be regarded as the ancestor of tablets. As can be understood from its name, PDAs are designed for people as a digital assistant to be able to make function as a computer, make phone calls, send text messages, connect the Internet and even send Fax. One significant feature of PDAs is the stylus pen that is used for writing purposes. PDAs target audience was business industry rather than education. Accordingly, PDAs weren't used much for educational purposes. Like e-Readers, they become obsolete with the emergence of tablets.

2.1.4.5.2. Operating Systems

Operating systems are main software that allows electronic devices to perform computing functions. Mobile operation systems, which is generally abbreviated as MobileOS, are the primary factor that differs a smartphone from a featured phone. The featured phone is the type of phone that has no operating system, which is traditionally called as a cell phone. MobileOS is the main function that grants smartphones to perform computing abilities. There are several MobileOS but the leading mobile operating systems are Google's Android, Apple's iOS, Microsoft's Windows Phone and BlackBerry's RIM. According to the study of www.idc.com. (2017), of all the mobile operating systems, Google's Android dominated the market and it's the most used MobileOS. Android is followed by Apple's iOS, Microsoft's Windows Phone and other mobile operating systems.

2.1.4.5.3. Mobile Applications

A mobile application, mostly abbreviated as 'app', is a program that is designed to run on a mobile device. After operation systems, mobile applications are the second facility of what makes a smartphone. Mobile applications are installable programs just like software in

computers, and that can be removed from mobile devices by the user. They run under the operating system and serve the need of the user. According to Budiu (2013), there are three types of applications; native applications, Web applications and hybrid applications. Roughly, native apps are the applications that come installed on the mobile device and accessible through the application markets. Native apps can be divided into two categories; system apps and user apps. Systems apps can either work on background or can be used by the user. Mostly, they cannot be uninstalled but they can be disabled and forced to stop. They work for the system to run better and optimize. They are not installed by the user but come installed with the mobile device. User apps are the applications that users can choose and install according to their needs from application markets. Unlike system apps, they can be uninstalled by the user anytime. Web apps, technically, don't have the structure of native apps but they look like apps. In fact, they are websites which are optimized to run on a mobile device without a problem. This function of a Web app is called 'mobile friendly'. The mobile-friendly function is what makes a webpage fully compatible to view and use in a mobile device. When compared to native apps, Web apps can experience more problems in terms of display and functionality such as scrolling, pinching or menu transitions. Lastly, hybrid apps are the combination of web apps and native apps. What makes them similar with Web apps is that they rely on HTML codes and can be viewed via a browser and what makes them similar with native apps is that this browser rendering function is embedded into an application. The reason why hybrid apps are developed and widely used by low-level developers is that since they are browser-based, there is no need to optimize for different operating systems and application market specifications. There are several reasons for developers to consider while choosing the type of the app they will develop such as functionality, installation, speed, content restrictions, platform specifications, development cost, user interface, target users, device features and so on.

Mobile applications can be downloaded from two sources. One is official application portals and the other is third-party applications. Official application portals are founded by the operating system developers and serve trusted, secure and optimized applications to the users. The main application portals are Google's Play Store, Apple's App Store, Microsoft's Windows Apps and BlackBerry's App World. Users can download applications from these portals according to the mobile operating systems they use. Holzer and Ondrus (2011) groups application portals under two categories: centralized portals and decentralized portals. Centralized portals are main app providers where users can download applications that are supervised by the technicians and more secure. Though they have different policies, Google's

Play Store and Apple's App Store are centralized app portals. While Apple has strict restrictions to publish an app in App Store, Google can act more flexible about app restrictions. Decentralized portals mainly have no restriction policy on app publication and developers can freely upload and publish their apps on decentralized portals. In application portals, there are mainly two types of applications; authorized applications and user applications. Authorized applications are developed by specialists that serve a specific purpose. Both the technical and contextual details are designed and supervised by specialists. User-developed applications can be developed by anyone in any category without the validation of a contextual authorization process. Most application portals impose restrictions for app developers such as; sexually explicit content, child endangerment, violence, bullying and harassment, hate speech, sensitive events, gambling, illegal activities and user-generated content. On the other hand, the validation of contextual information of apps is not the focal point of app portals which makes it problematic for the education field. The disadvantages of this situation on education will be thoroughly discussed in The Influence of MALL on Language Instruction section.

2.1.4.6.   The Influence of MALL on Language Instruction

MALL has been considered to have a deep impact on language instruction in terms of principles, techniques, strategies, teacher and learner roles, material use and evaluation process. In this section, the influence of MALL on language instruction is discussed under four categories; (1) the influence on the characteristic of teaching and learning process. (2) the influence of four skills which includes speaking, listening, reading and writing, (3) the influence on grammar instruction, (4) the influence on vocabulary instruction

2.1.4.6.1.   The Influence on the Characteristic of Teaching and Learning Process

MALL owes its influence on the functionality of mobile devices, relatively to smartphones. The features that ensure this functionality were described under five main titles in the research of Klopfer, Squire, and Jenkins (2002) which are; portability, social interactivity, context sensitivity, connectivity and individuality. These features embody the main characteristic of mobile devices and accordingly MALL. With the emergence of MALL, the language instruction has gained a new momentum experiencing new changes in its

characteristics. The above-mentioned features of mobile devices have a direct effect on language instruction. First, portability function of mobile devices helped learning process develop a ubiquitous characteristic. Since learning environment is carried into mobile devices and learners feel free to use them anytime and anywhere, learning process can be experienced outside the classroom. By this way, an uninterrupted and continual learning is achieved. Second, mobile devices increased the scope and availability of the interaction between environmental agent which are teachers, peers or any other agents that learners need to interact in learning process. Moreover, the amount and the scope of this interaction is limitless; it can be an in-class interaction or an overseas one. The interaction function promoted collaborative learning, specifically peer learning. Third, accessibility feature of mobile devices nurtured the diversity of learning process in terms of learner style. In other words, with mobile devices, learners found the chance to easily access any content related to their learning process in line with their learning style which granted an individualized learning to the learners. Before, learners were confined to the style and the materials that teachers had chosen for them neglecting the individual differences of learners, but with mobile devices teachers had the chance to act more flexible about learners' individual differences. The reflection of this can be clearly seen in material use. Teachers can offer different kinds of materials to learners and learners can find materials themselves with the help of accessibility function of mobile devices. The connectivity and accessibility features of the Internet helped to comprise an immense material pool where anyone can reach anytime, and the mobile devices are the tools that establish access to this pool. Fourth influence were seen on teacher roles and learner roles. Traditional teachers adopted a role of an authority in learning process, designing, conducting and evaluation it at the same time. With the widespread acceptance of constructivist approach, teachers tended to be a counsellor rather than being the authority in class. MALL adopted the counsellor teacher role of constructivist approach and made a few updates in teacher roles. The most significant feature of MALL teachers appeared to be interaction. With the help of mobile devices, teachers had the chance to establish interaction with and between learners letting them set up their learning environment, syllabus, techniques, materials and homework considering the high interaction chance. Universally, the main technique of teachers is to make learning relevant to learner's background, needs and environment. MALL can be regarded as one of the best approaches to do so because with the help of mobile devices teachers can offer learners an individualized context or teach them how to access relevant content. As for learner roles, MALL updated major learner roles, too. When language learning process is considered as a whole, learners don't take part in much of this process directly. MALL granted learners to take the

responsibility of their learning in every phase of learning process from building syllabus to evaluation. Since the main concept that MALL has brought to language learning is individualized or autonomous learning, learners are required to actively take part in the building of learning process collaborating with the teachers. Also, MALL has turned learners out to be life-long learners who are free from the restrictions of time and place. The integration of learners to the planning process of learning resulted with a change in learner perception by taking responsibility and internalizing what to learn, how to learn and why to learn. The traditional learners were away from this perception and experienced a listen-and-learn style without internalizing the real aspects and need of learning. These considerable changes in teacher and learner roles has made learning process more efficient and fruitful.

2.1.4.6.2. The Influence on Four Skills

In this section, the influence of MALL on four skills (speaking, listening, reading and writing) will be discussed. While MALL has a deep effect on entire language learning process, it specifically affected the main skills, too. More or less, the influence of MALL can be clearly seen on each skill.

Though MALL has the highest influence potential for speaking, the studies and implementations of MALL on speaking skills are very limited. Among all skills, speaking skills are mostly regarded as the most difficult one for both teachers and learners to deal with because it is interfered by many independent variables such as anxiety, background knowledge, cultural limitations, psychological factors, etc. Before discussing the influence of MALL on speaking skills, it would be useful to reveal the problems on the improvement of speaking. As mentioned, speaking is the most problematic area of language instruction. One of the major sources feeding this problem is grammar oriented instruction Coskun (2016). Grammar oriented instruction makes learners care exceedingly for grammar rules and correctness which creates an interruption in speaking outcome. Another point is that grammar oriented instruction has no error tolerance and learners feel more anxious to make grammatical errors while speaking. This situation results in a subconscious pressure on learner that hinders speaking output. Another significant problem for speaking is the lack of practical use. Most learners try to learn to speak in the target language from non-natives and in non-authentic environments or situations. By this way, learners do not feel like 'really speaking' and they are not motivated, either. Also, in this strategy, high level of pronunciation mistakes, rhythm and intonation problems are

encountered. MALL has brought a solution to all these problems and introduced new perspectives in speaking instruction. Feeling insecure and anxious, the most problematic issues of speaking process has been substantially overcome with the integration of MALL to the learning process. This is mostly ensured by the accessibility feature of mobile devices in that with the help of mobile devices and the Internet, learners have the chance to access native speakers from all around the world and had the chance to practice with them. As speaking practice is individualized in this way, learners started to feel more secure and improved their speaking skills. Also, this situation hindered the pronunciation mistakes and intonation problems with the help of practice with native speakers. Moreover, they started to feel like 'really speaking' which motivated them to speak more.

Listening can be regarded as the second skill that MALL contributed much. With the emergence of CALL, listening skills experienced its golden era because before CALL it was technically tiring to deal with listening materials and the scope of materials were short. Computers helped learners easily access and use listening sources. But again, learners experienced some problems in improving their listening skills. Goh (2000)'s research summed these listening comprehension problems, some of which are (1) not recognizing the words learners know, (2) neglecting the next part when trying to figure out the meaning, (3) missing the beginning of text, (4) concentrating too much or unable to do so, (5) quickly forgetting what they hear, (6) understanding words not the content. These are the problems that any learner, regardless of the technique they adopt, can experience in improving listening skills. Lotfi, G. (2012) categorized the listening comprehension problems under six categories which are problems related to process, input, listener, task, affect and context and the writer listed several listening comprehension problems for each category. Some problems that Lotfi (2012) detected in this study specifically related to the MALL. For example, under process category one problem is that 'learners have difficulty to evaluate the overall difficulty of their listening comprehension'. Under input category some problems are finding it difficult when the speaker speaks too fast, speakers speak with a varied accent and when the speaker doesn't pause long enough. Another problem is under affect category which is feeling anxious that they will not be able to understand what they hear. Lastly, in context category, there are two specific problems which are unclear sounds resulting from a poor CD quality interfere with learners' listening comprehension and poor acoustic conditions of classroom interfere with the comprehension. These problems in two studies can be regarded as the overall problems of listening comprehension. It can be said that MALL has a direct influence on Lotfi's (2012) problems and

an indirect influence on Goh's (2000) problems. The best function of mobile devices that is useful in listening comprehension is a learner-led process. With mobile devices learners had the chance to control, in other words; start, pause, slow down, end and restart, the listening materials which mostly eliminated the above-mentioned problems. Along with the technical ease, MALL ensured security in the listening process.

Another skill that MALL is influential is reading. Reading has always been the focus of language instruction and it may be counted as the skill that is worked on most. In traditional reading classes, learners experienced several problems such as delayed support, lack of feedback and conflict-oriented collaborative process Lan, Sung and Chang (2007). Also, a paper-based reading experience can be time-consuming in case of a physical dictionary use and make contextual research about the text where necessary. As mobile devices developed, there occurred devices specifically designed for reading purposes such as e-Readers and subsequently tablets. With these devices, MALL introduced a new concept to reading; digital text. Digital texts are the texts that can be viewed on digital devices and with time digital text turned out to be interactive texts. The interactive texts let users do several functions on digital texts such as looking up the meaning of a word instantly by just touching on the word, highlighting important parts, taking notes, being able to view media such as photos and videos inside text and so on. These facilities helped learners to gain time in looking up the meaning of unknown words, instantly accessing contextual information about texts with the help of supportive media embedded into texts and the level of reading motivation of learners significantly increased in most cases Wang and Smith (2013). These technical contributions of MALL to reading skills have turned out to be functional improvements in time.

Writing is the skill that MALL has the least effect on. When it's about writing mobile devices has considerable disadvantages in contrast to computers. The main disadvantage of mobile devices in terms of writing is the absence of a physical keyboard. Though there are phenomenal smartphones that have miniature physical keyboards, they still experience the problems of slow writing or typos. Majority of mobile devices have touchscreen keyboards which pop out from the bottom when there is a text field and user can write with touching the letters. In contrast to typing, touching is slower and less accurate in writing. It can be said that they work very well for daily purposes but for long and continuous writing purposes it is tiring to write in touch mode. Related to this, in Calabrich (2016)'s study, slow speed of input depending upon the type of keyboard in mobile phones noted as a constraint of the study. On the other hand, Chen, Carger, and Smith (2017) conducted a study on mobile assisted narrative

writing practice of English language learners by using a digital handwriting app, not touchscreen boards or keyboards and their study reveals significant efficiency of mobile handwriting app on the improvement of writing skills. Another striking study is conducted by Kim and Kwon (2012) exploring the effectiveness of using applications in mobile assisted language learning. In the study, they make a list of the number of smartphone applications by language learning areas when the keyword 'ESL' is searched in Apple's App Store and writing yields with only five apps which are all paid apps. It can be concluded that because of the technical incompatibility of a mobile device with the nature of writing skills, MALL didn't have considerable influence on writing skills.

2.1.4.6.3.   Influence on Grammar Instruction

Grammar instruction has always been in the spotlight of language instruction. With the prevailing approval of grammar-translation method for a long time, grammar instruction held in high esteem from both teachers and learners. Through the language instruction history, grammar instruction can be divided into two sides; deductive and inductive grammar instruction. As described in Jean and Simard (2013)'s study, deductive grammar instruction is simply the rule presentation of language which is often associated with Presentation-Practice-Production model of teaching. It is a matter of presenting the rule and practising it in a drill-type exercise and its direction is mainly from general to specific which is also called as the top-down approach. On the other hand, inductive grammar instruction is a bottom-up process from specific to general in which form is not presented directly but in a meaningful content and learners are expected to induce the forms. The use of deductive or inductive approach may change according to the nature of target language or characteristics of learners. While the traditional approaches adopted sharp principles on inductive or deductive grammar instruction, contemporary methods tried to combine them and handled the issue from an opportunistic perspective.

Both approaches raised certain problems in grammar instruction. The biggest disadvantage of deductive instruction is the problem of transferring knowledge from short-term to long-term memory, in other words turning learning into the acquisition. Memorize rules-practise with drills process often deals with short-term memory because the process lacks active cognitive operations that transfer the knowledge from short-term to long-term memory. On the

other hand, since inductive grammar instruction is a time and energy consuming process and requires high cognitive skills, it may not be convenient for every student.

MALL brought a different perspective to grammar instruction and resolved many of the problems faced in grammar instruction process. It can be said that MALL's main influence on grammar instruction is converting it into a more inductive way with its features and functions. The diverse, dynamic and rich features of mobile apps have made grammar more inducible and perceptible. Also, contextual media use and instant feedback feature eliminated the time-consuming problem of inductive instruction. Another contribution of MALL on grammar instruction is the integration of grammar instruction with other skills. With mobile apps, pronunciation, reading, writing, speaking, listening and vocabulary can be embedded into grammar instruction via the facilities of mobile devices and flexibility of mobile apps.

2.1.4.6.4. Influence on Vocabulary Instruction

Before discussing the influence of MALL on vocabulary instruction, there is a need to summarize the historic progress of vocabulary instruction. In the first practices of language instruction, mostly known as Greek and Roman instruction, the lion's share was on grammar instruction and little focus was on vocabulary. Vocabulary instruction consisted of just the literal equivalents of words and its function was to be able to translate the sentences. The main, perhaps the only, drill on vocabulary was writing the definition over and over. This perception had been carried on for a long time until some new demands and requirements showed up in language instruction. During the World War II, the war conditions created the fundamentals of Audio-Lingual Method. In this perspective, vocabulary instruction was regarded as a supplementary of speaking outcome and new strategies were developed such as repetition, replacement, single and multiple slot substitutions, restatement etc. With ALM vocabulary instruction gained a momentum which resulted in with a privileged attitude to vocabulary. After this time vocabulary instruction turned out to be exercise-oriented and the focus shifted to 'how to memorize the words?'. Wordlists, write-the-definition, use-it-in-a-sentence, choose-the-correct-meaning exercises dominated the vocabulary instruction for a very long time. Many studies examined the futility of rote learning and studies were conducted on how to effectively teach vocabulary. Many studies came up with the same conclusion that effective vocabulary instruction is tied to multiple exposures of learners to infer the word meaning. Making inference is regarded as the main tool in this process and rather than a separate vocabulary instruction, it

is embedded into and integrated with other skills. Also, the scope of vocabulary was narrowed down with the emergence of contemporary approaches such as content-based learning and learners dealt with the vocabulary that they would need.

All in all, vocabulary instruction includes three main learning techniques; literal, lexical and contextual techniques. All three techniques have strong sides and problems as well. The literal technique is the traditional memorization of native language equivalents of target words. It includes strategies such as look-and-remember or rote verbal rehearsal which is saying the word over and over till it is memorized. The biggest handicap of this technique is obviously quick forgetting. When the words memorized are not associated with contextual meaning, the words are quickly forgotten. Another technique is the contextual technique which revealed the failure of literal technique in transferring the word knowledge from short-term to long-term memory, regarded vocabulary learning as a more cognitive process rather than just memorizing them. This process includes cognitive abilities such as association, inference, transfer and so on. It changes the nature of vocabulary instruction from learning to the acquisition. According to Rapaport (2005), contextual vocabulary acquisition is the conscious acquisition of word meaning from the context by making an inference. It is a matter of figuring out the meaning of a word from the context with the help of learners' background knowledge, their prior experiences, contextual inferences, sometimes grammatical structures and text coherence. The main handicap of this technique is that it can be time and energy consuming because it requires cognitive abilities which take time to work on and it is not suitable for every learner since, again, it includes intensive cognitive abilities. Lexical technique adopts the main principles of contextual technique and favours that vocabulary should be acquired in a meaningful context and adds vocabulary can be better learned with chunks. It rejects the notion that vocabulary is embedded into grammar, rather grammar can be taught with vocabulary instruction. Computational tools are crucial in lexical approach to analyse the data gathered from technological corpora.

MALL managed to eliminate the drawbacks of vocabulary instruction with the facilities and functions that mobile devices brought. Surprisingly, the literal technique which gradually lost influence after the emergence of the contextual approach started to be favourable again with MALL. User-generated mobile applications resurrected the literal memorization strategy of literal technique because there are thousands of mobile applications on portals serving to teach words via flashcards. These applications are not built professionally but generated by users who have no scientific expertness on vocabulary teaching because the easiest way of preparing a

vocabulary app is to make it a flashcard app that shows the target word on one side and meaning on others side, mostly supported by pictures or example sentences. However, these kinds of apps are highly in demand because learner tendency is always on the easier side. This situation can be regarded as a negative influence of mobile apps on vocabulary instruction. On the other hand, MALL helped contextual approach reduce the troublesome points such as time and energy consuming problem, that is to say professionally designed mobile apps extremely shortened the time spend on word search in contrast to physical dictionaries and offered audio-visual support to help learners infer the meaning. Also, from the point of lexical approach view, MALL contributed much because, as stated above, the lexical approach relies on computational tools to analyse data gathered from technological corpora. For instance, concordance apps are great tools to detect and inspect chunks in texts which is an indispensable tool of contemporary chunk teaching.

2.2. Literature Review

Mobile assisted language learning has been of great concern for researchers in recent years. It's a fairly productive study area and yields seminal results for researchers. It is widely accepted that the strong integration of mobile phones into our lives and accordingly to education increases the importance of MALL studies and shows the need to study it thoroughly. Google Scholar which is known to have the largest research database on Web lists 305.000 results for the search term mobile assisted language learning and around 3.900 of them include the term "mobile assisted language learning" in their title. The first research listed on Google Scholar as a result of the search of the phrase 'mobile assisted language learning' dates back to 1992 by Clark and Hooshmand (1992). The studies on MALL can be divided into two periods; before smartphones and after smartphones. In the first period, it can clearly be seen that the main research topics were teaching with SMS, teleconferencing and PDAs. In the second period, with the rich facilities that smartphones enabled in mobile devices, there occurred a sharp increase in web-based and app-based researches. Burston (2013) conducted a distinctive statistical study on studies that have MALL implementations between 1994-2012. He detected 575 studies on MALL and 345 of them were implementational studies and 103 of them were related to vocabulary instruction. Two years later, Burston (2015) conducted a new bibliographic study on learning outcomes of MALL implementations. Differently, from the first study, he set specific elimination criteria for more accurate results such as inadequate treatment duration and student numbers, design shortcomings, failure to track actual usage, the presence of

uncontrolled variables, inadequate control group descriptions, the presence of confounded variables and inadequate statistical analysis. By applying these filter to the researchers, he had detected, he managed to find only 19 studies that meet the conditions to successfully measure the learning outcomes. 11 studies out of 19 were related to MALL and except three studies, all found out significant relations. As these studies show, MALL studies mainly focus on vocabulary instruction and prove the significant contribution of MALL in vocabulary instruction. In this part, the specific studies on the effect of MALL on vocabulary instruction will be presented under two categories. First; the MALL studies on literal vocabulary instruction. Second; the MALL studies on contextual vocabulary instruction.

2.2.1. MALL Studies on Literal Vocabulary Instruction

Literal vocabulary instruction has always been popular and attracted the attention of both learners and teachers. It is the most common and the first phase of vocabulary learning. For ages, it has been used in English classes and the advantages and disadvantages of it have been discussed by language experts. It involves the memorization of native language equivalents of target words without studying on the contextual use of words. To do so, bilingual words lists, flashcards, oral repetition drills and dictionaries have been used as the core tools of literal vocabulary instruction. After the integration of smartphones into the language instruction, mobile apps promoted the rise of word memorization technique because user-generated mobile apps mostly focused on the memorization of certain words with the help of rich audio-visual facilities that apps offer to users. Along with this shift, the studies that aim to assess the effectiveness of word memorization gained importance and the number of the studies increased.

Basoglu and Akdemir (2010) conducted a study at a public university in Turkey to detect the vocabulary learning level of learners with the help of a mobile app. Among the 60 university-level Undergraduate Compulsory Preparatory Program students 30 were chosen as the experimental group to study with the mobile and the control group students used traditional vocabulary acquisition techniques. A flashcard app is used as the main tool. For six weeks, learners were expected to use the flashcard app to memorize the words both in curricular and extracurricular times. Before and after the study, an 80-question multiple-choice test was administered to both groups and the results were examined. The results indicated that both experimental group and control group showed improvement in vocabulary acquisition, but the

experimental group found the process more effective and entertaining in contrast to control group.

Differently, from other researchers, Wu (2015) created a word learning software including words in its database which were alphabetically listed. The app enables learners to select and deselect words to create word pools labelled as known words and unknown words and move from one another. The app includes the native language equivalents of target words with their phonetic transcriptions and lets learners take a sample test from randomly selected words. The participants were 70 4th year medical school students 35 of which were chosen as the test group and the other 35 is the control group and they studied nearly for two months. The pre-test result showed no significant difference between groups but in the post-test, test group outperformed the control group.

Similarly, Jalalifarahani and Ghovehnodoushan (2011) attempted to seek the effectiveness of MALL on vocabulary instruction. The study was conducted on 55 elementary EFL students and divided into two groups. The first group, the experimental one, studied vocabulary with mobile phones and for the control group, realia is used as the main tool to teach vocabulary. For the control group, the words were chosen from their elementary book and 5 words were taught for each session, 30 in total. The experimental group studied vocabulary via SMS messages. They received the English-Persian translation of the words three times a day for ten days. At the end, a 20-item test was administered to students to assess their vocabulary knowledge. Pre-test and post-test results indicated that word learning via SMS outperformed the word learning via realia. However, the difference of the number of sessions that experimental and control group had taken mentioned as the independent variable of the study.

Another SMS-dictionary comparison study was conducted by Alemi Sarab and Lari (2012) 45 Iranian university level students. Their study focused on to find out if there is a difference in learning vocabulary through SMS or dictionary. To do this, 320 academic words were chosen from seven sub-lists. For 16 weeks, learners received SMS messages including Persian-English meanings of words two times a week, 10 words for each attempt. For the control group, the dictionary was used as the primary tool to learn the same words. In assessing the performance of learners, pre-test, post-test and a delayed post-test were used. The results of the post-test indicated that both groups showed improvement and no significant difference was observed but the results of the delayed post-test which had been administered 4 weeks after the post-test showed that experimental group outperformed the control group. According to these

50

results, researchers concluded that teaching vocabulary via SMS is an effective way to retain words in long-term memory.

2.2.2. MALL Studies on Contextual Vocabulary Instruction

The study by Basal, Yilmaz, Tanriverdi and Sari (2016) compared the effectiveness of using mobile applications with traditional activities on the teaching of 40 figurative idioms chosen from Michigan Corpus of Academic Spoken English. The 50 participants were from ELT department of a university in Turkey who are of the upper-intermediate level. Participants were divided into two groups and while experimental group used a mobile application in presenting the idioms, control group used the traditional pen-paper system. The meaning of the idioms, usage, pictures and example sentences were sent to experimental group as MMS message via WhatsApp Messenger and the control group received the same data as a printed document. 10 MMS messages about the idioms were sent to experimental group every week, four weeks in total. The result of the pre-and post-test of the control group showed significant improvement in idiom knowledge of the learners which indicated that traditional pen-paper style made a positive contribution to the control group in vocabulary learning. Also, the pre-and post-test results of the experimental group indicated significant improvement which proved the effectiveness of using the mobile application in vocabulary instruction. However, when the post-test results of control and experimental group are compared, it can be clearly seen that experimental group's score outperforms the control group's score suggesting that in this study mobile application is far more effective in teaching vocabulary in contrast to traditional pen-paper activities.

The study of Fageeh (2013) aimed to explore the benefits of mobile applications' potential in improving vocabulary acquisition and learner motivation. The participants are composed of 58 randomly selected students and divided into two groups; 27 students for experimental group and 31 students for the control group. Before the training section, a pre-test was administered to both groups. The teacher sent the words he had chosen from the textbook to the learners in the experimental group via WhatsApp Messenger three times a week after each class. Learners are asked to define the words by using a dictionary application, use the words in a sentence they produce and sent it back to their friends and teacher for correction. The same process was applied to control group as a traditional way via homework. At the end of the training session, a post-test and a motivation questionnaire were administered to students. The results of the post-

test indicated a significant improvement in experimental group's test scores suggesting that mobile application was fairly effective in vocabulary acquisition in contrast to the traditional way. Also, the motivation scale results of the experimental group were higher than the control group showing the motivating nature of mobile applications in vocabulary instruction.

Another distinctive case study conducted by Ahmad, Sudweeks and Armarego (2015) attempts to reveal the effect of MALL on vocabulary acquisition of six non-native English speaking migrant women in a small community centre in Western Australia. Along with the vocabulary instruction, a socio-cultural approach was adopted in the design of MALL lessons. The study was conducted under a non-profit program whose objective is to provide a non-formal learning environment for people who wants to learn basic conversational English. The training session involves two hours, non-formal conversational sessions each week. As data gathering tools, pre-MALL and post-MALL interviews were used. Learners were provided with tablets that include ESL apps that they could study on. The app in the tablets provided conversational English everyday phrases under five categories. The learners could watch and listen to conversations, practice vocabulary by activities such as picture matching, listen to the word pronunciations, see the use of words in example sentences, practice speaking with audio recording facility. Vocabulary is mostly studied in three steps. In step one, pictures were used to introduce new words and phrases. This is mostly the engagement part of the session. In the second step, learners practice fluency and become familiar with the use of words and phrases. The third step is the practice part. Learners use their tablets to practice what they learnt. The results of the pre-and-post interviews indicate that sociocultural factors affect migrant women's language learning in general and vocabulary learning in particular. And the responses of the attendees reveal the positive effect of the MALL in vocabulary instruction.

In conclusion, as can be clearly seen from the studies above, MALL has a significant contribution to the acquisition of vocabulary. The studies mentioned above reflect different aspects of MALL such as participants, tools, data gathering ways, evaluations types, learner levels etc. However, no matter what underlying circumstances are, MALL has been proved to be an effective way in vocabulary instruction.

3. METHODOLOGY

3.1. Research Design

Statistical Package for Social Sciences (SPSS) version 15 was used to evaluate the data obtained from the study and to prepare the tables. The academic achievement, pre-test, post-test scores and post-test scores of the students in the groups are presented with mean, standard deviation, median, minimum and maximum values obtained by subtracting the pre-test score from the post-test scores. The relevance of the data to the normal distribution was assessed by the Shapiro-Wilk test. For this reason, non-parametric test methods were used for statistical analyses. The Mann-Whitney U test was used to examine whether there was a statistically significant difference between Contextual and Literal groups in terms of academic achievement, pre-test, post-test and change score averages. The Wilcoxon Sign Rank Test was used to see whether there was a difference between pre-test and post-test averages in each group. $p<0.05$ significance level was considered in all statistical analyses.

3.2. Participants

The participants of the research were 84 freshmen students at Balikesir University, Susurluk Vocational High School who were randomly selected from the departments of Laboratory and Veterinary Assistance Service, Food Quality Control and Analysis and Milk and Dairy Products. The participants were divided into two groups as literal and contextual vocabulary instruction group. Each group had 42 students. In the Literal group, 9 out of 42 were male and 33 students were female. In contextual instruction group, 23 out of 42 were male and 19 students were female. Participants' age group was 18-20 and their English level was A-1. They took English classes in the first year for two terms and for two hours in a week in one term.

3.3. Tools

In this research, two types of tools were used; data gathering tools and practice tools. As data gathering tools, a pre-test and post-test were administered to both literal and contextual instruction groups. Pre-and Post-test of the literal instruction group includes 25 vocabulary questions asking for the Turkish equivalents of the English words. Pre-and-Post Test of the

contextual instruction group included 25 vocabulary questions as a fill-in-the-gaps exercise choosing from the given word box. Practice tools were the apps that were used in practice session. In the lexical instruction group's practice session, the apps used are Kahoot App and Cram Flashcard App. In the contextual instruction group, Socrative App was used. The common apps used in both groups were WhatsApp Messenger App and YouTube App.

3.3.1. Socrative App

Socrative is a classroom app, both available for IOS and Android users, that can be used both in practice and assessment sessions. With Socrative App, it is possible to effectively assess teachers' standards, monitor learners' performance and report the learners' outcomes. It offers quiz types such as multiple choice, short answer and true-false.
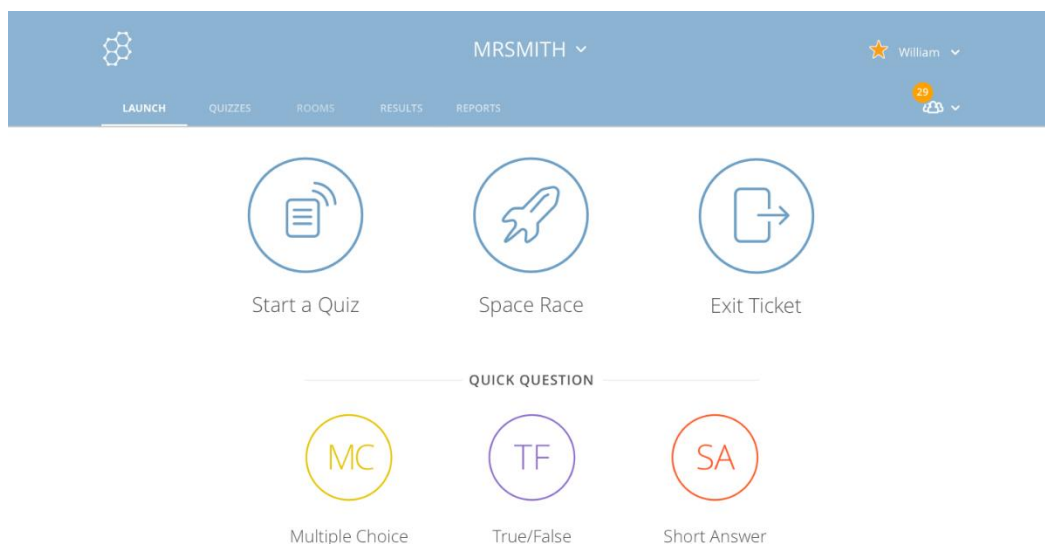

Figure 1. Interface of the Socrative App

These three question types can be used in one quiz. At the end of the quiz, teachers have the chance to see the results instantly for each student or overall class. The quiz reports can be saved as PDF files for each student.
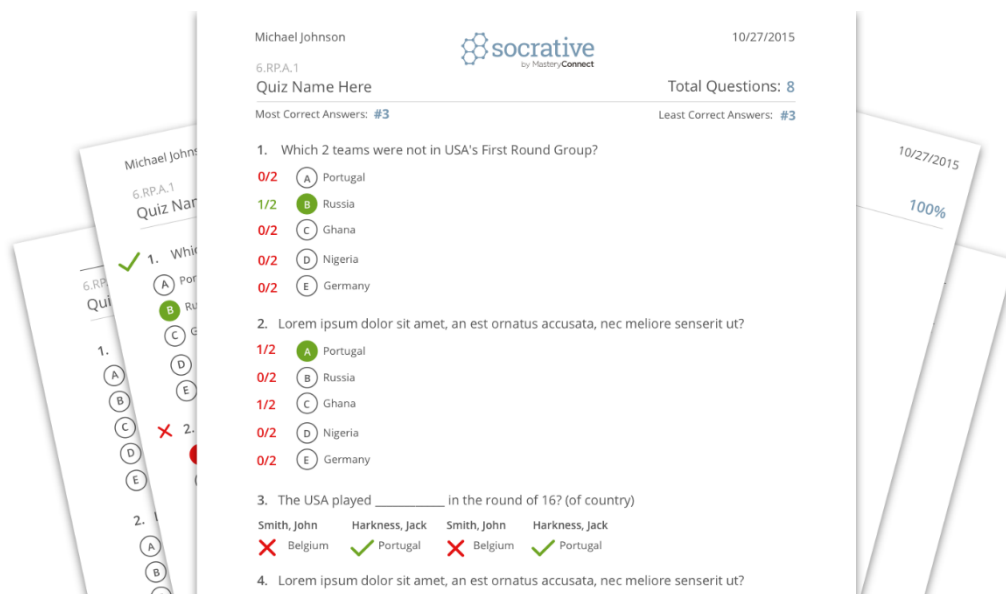
Figure 2. Quiz Reports in Socrative App

In this research, Socaritve App was used to teach vocabulary contextually to the contextual instruction group in the assessment section of the lesson procedure.

3.3.2. Kahoot App

Kahoot is a game-based learning/teaching platform that presents an engaging, playful and social learning environment. As explained by the developers, the founding principles of Kahoot are social, play and learning. Kahoot allows teachers to create multiple choice quizzes including videos, images and diagrams. The quiz turns out to be a game with Kahoot in a classroom environment. Students answer the questions from their mobile devices while questions are displayed on a shared screen. After each question, students can see the results table on the shared screen and their mobile devices. Kahoot is explained as a flexible, simple, diverse, engaging and global learning environment on its website. In this research, Kahoot was used for the literal instruction group.
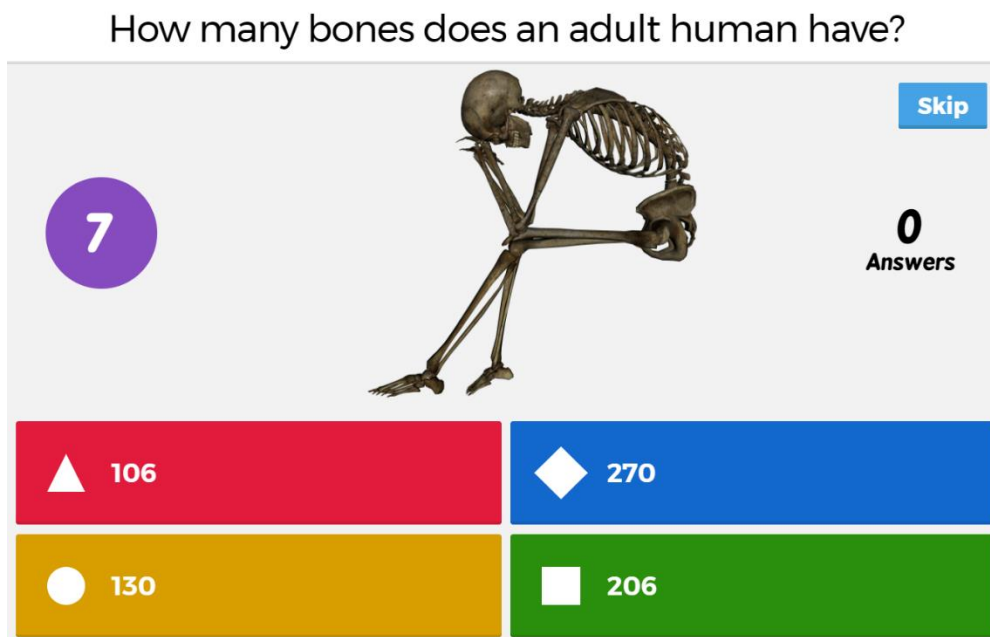
Figure 3. Question Interface of Kahoot App

3.3.3. Cram Flashcard App

Cram is a word memorization app via flashcards. It carries the traditional bilingual flashcard instruction to the mobile platform. The developers of the Cram app declare that they used 'The Leitner System' in the creation of the app. In the Leitner System flashcards were separated into a number of compartments. The compartments are arranged according to the level of the student and while the memorized flashcard is moved to the next compartment, unknown flashcards are demoted the first one. Cram offers a wide range of flashcard sets grouped into certain categories or the teachers can create their own flashcards. In this research, Cram Flashcard App was used for the literal instruction group.
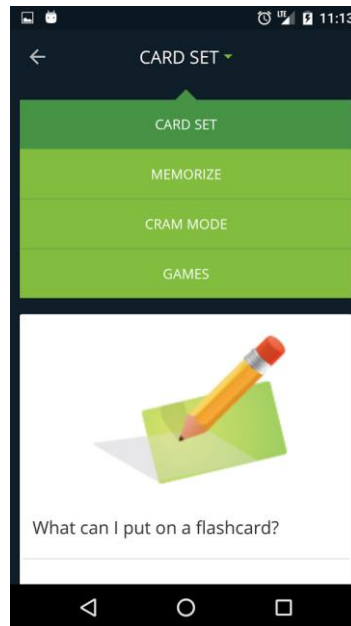
Figure 4. Cram Flashcard App Interface

3.3.4. WhatsApp Messenger App

WhatsApp Messenger App has been widely used for educational purposes in classes and for academic studies. WhatsApp Messenger mainly nurtured the social nature of the education by facilitating communication to the full. It enables teachers to achieve a faster and limitless communication with the students. Along with the communication facility, teachers use WhatsApp to share audio-visual materials and documents with students. In this research, WhatsApp Messenger was used in the engaging part of the procedure. For each group, a WhatsApp Group was created, and the vocabulary was introduced via WhatsApp to students.

3.3.5. YouTube App

YouTube is another video entertainment app that has been widely used for educational purposes. Teachers effectively use YouTube in the engage parts of their lesson procedures. In this research, YouTube app was used to engage the students into the topic. Every week ten vocabulary items were intended to teach the learners and at the beginning of the classes, a video including the target vocabulary was presented to the students via YouTube app.

3.4. Procedure

This research intends to find out the effectiveness of certain mobile applications on contextual and literal vocabulary instruction. In order to gather data, randomly selected 84 freshmen students at Balikesir University, Susurluk Vocational High School from the departments of Laboratory and Veterinary Assistance Service, Food Quality Control and Analysis and Milk and Dairy Products were chosen as participants of the study and divided into two groups as contextual instruction group and literal instruction group. Both groups received six-weeks instruction including pre-test and post-test in the first and the last week of the period. Each week's lesson plan was divided into three parts as; pre-class, during class and post class. During class part was also divided into three parts as: engage, study and activate parts.

In the first week, before administering the pre-test, both groups were informed about the purpose, participants and procedure of the study in details. Their attitude to use mobile applications was discussed and the integration of mobile application into the lesson was explained to the participants. Both groups were administered a pre-test in the first week. For the literal instruction group, a test including 40 words asking to fill in the blanks with the Turkish equivalents of the given words was administered to participants. For the contextual instruction group, a test including the same 40 words was administered, asking to fill in the blanks in the sentences using the contextually appropriate words in the box at the top of the page.

In the second week, 10 words were chosen to teach each group. For the literal instruction group, the list of target vocabulary and their meaning were sent to students before class via WhatsApp Messenger App. At the beginning of the class, in the engaging part, students were introduced a video named 'Horses can read emotions' which includes the ten-target vocabulary to be taught in the lesson. In the study part, learners checked the meaning of the words from bilingual word lists and watched the video again. After watching the video, learners tried to memorize the meanings of words with a flashcard app named Cram Flashcard App. In the activating part, students checked their knowledge with an interactive multiple-choice quiz game named Kahoot asking for the Turkish equivalents of the target words. At the end of the game, students could see their overall progress from their mobile phones and the game was repeated again in 'ghost mode' which allowed learners to compete with the ghost of themselves in the previous quiz. At the end of the activating part, students were announced to join a versatile quiz at a pre-defined hour with an online distance quiz after class.

For the contextual instruction group, the list of target vocabulary and their definitions were sent to the students before class. In the engaging part of the class, a video including the ten-target words was introduced to the students. Students tried to catch the words they had been introduced and notice their contextual use. Then in the study part, each word was introduced to the students with lexical definitions, pictures, videos and realia without giving the literal equivalents of the words. In the second part of the study, target words were introduced to students in a reading passage about the video watched at the beginning. In the study part, students checked their knowledge with an online interactive quiz application called Socrative and competed with each other. At the end of the quiz, the teacher could see the overall progress of the class and personal progress of the students and detect the missing parts. Teacher studied on unclear parts with students and the quiz was repeated. At the end of the study part, students were announced to join a versatile quiz at a pre-defined hour with an online distant quiz.

For four weeks, this procedure was applied and in the sixth week, a post-test was administered to each group's participants. Data was gathered and analysed with SPSS software.

3.5. Data Results

The study was conducted with a total of 84 participants; 42 in Contextual Instruction Groups and 42 in Literal Instruction Groups. In order to see the distribution of the groups, the average of the grades that participants had received from the previous English course were analysed. Descriptive statistics related to the academic achievement of the students are shown in Table 2.

Table 2. Descriptive Statistics of Groups

Descriptive statistics	Groups		Test statistics [a]	P
	Contextual	Literal		
Mean	65.3	67.4		
Standard Deviation	14.6	16.8		
Median	67.5	68.5	z = -0.747	0.455
Minimum	26.0	12.0		
Maximum	91.0	99.0		

[a] z value of Mann-Whitney U test

There was no statistically significant difference between the Contextual Instruction Group's academic average (65.3 ± 14.6) and the Literal Instruction Group's academic average (67.4 ± 16.8) ($p > 0.05$). Hence, it can be concluded that English course academic achievement average of the both groups are similar.

The descriptive statistics and the statistical analysis results of the pre-test scores of the participants in the Contextual and Literal groups are shown in Table 3.

Figure 5. Graphical representation of pre-test and post-test score averages of Contextual and Literal groups

Table 3. Descriptive Statistics of Groups (Pre-Test)

Descriptive statistics	Groups		Test statistics [a]	P
	Contextual	Literal		
Mean	9.8	23.7		
Standard Deviation	11.4	16.2		
Median	5.0	19.0	z = -4.891	<0.001
Minimum	0.0	3.0		
Maximum	65.0	73.0		

[a] z value of Mann-Whitney U test

Pre-test scores of the participants were analysed statistically and it was found that there was a statistically significant difference between the Pre-test score average (9.8 ± 11.4) of the Contextual group and the Pre-test score average (23.7 ± 16.2) of the Literal group and it was found that the Literal group was significantly higher than the average of the Contextual group (p <0.05). As expected, the Literal Group's pre-test averages were high because the questions in the exam administered to the Literal Instruction Group addressed only low-level cognitive abilities such as memorization, while the Contextual Instruction Group required high-level cognitive abilities such as inference, coherence and comprehension. That's why the Literal Group's pre-test results are high.

The descriptive statistics and the statistical analysis results of the post-test scores of the participants in the Contextual and Literal groups are shown in Table 4.
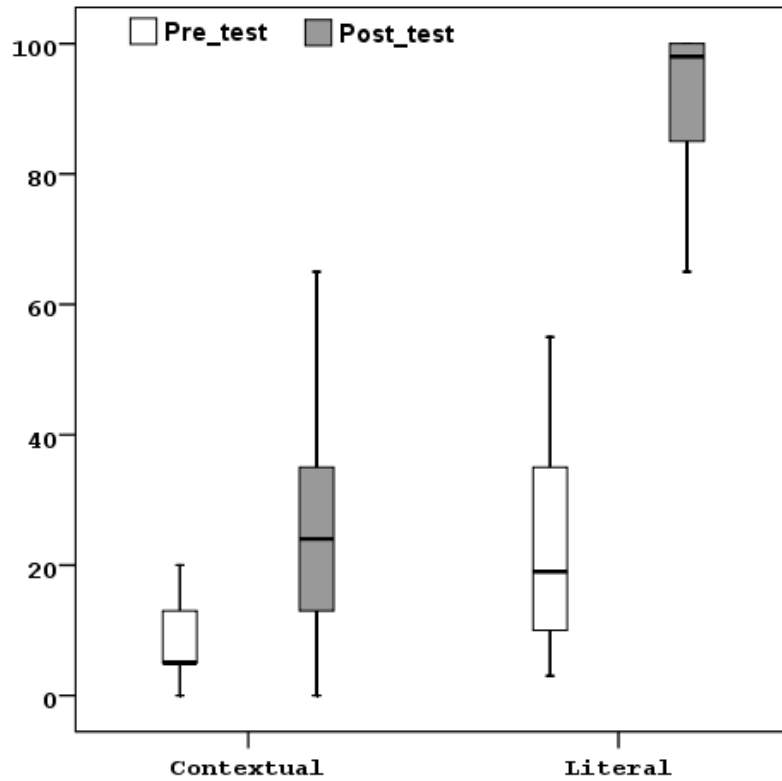
Table 4. Descriptive Statistics of Groups (Post-Test)

Descriptive statistics	Groups		Test statistics [a]	P
	Contextual	Literal		
Mean	31.4	84.5		
Standard Deviation	28.3	24.9		
Median	24.0	98.0	z = -6.256	<0.001
Minimum	0.0	15.0		
Maximum	100.0	100.0		

[a] z value of Mann-Whitney U test

Post-test scores of the participants were analysed statistically and it was found that there was a statistically significant difference between the Post-test score average (31.4 ± 28.3) of the Contextual group and the Post-test score average (84.5 ± 24.9) of the Literal group and it was found that the Literal group was significantly higher than the average of the Contextual group (p <0.05)

Descriptive statistics and statistical analysis results regarding the score change between Pre-test and Post-test of the participants in Contextual and Literal Instruction Groups are shown in Table 5.

Table 5. Descriptive Statistics of Groups (The Score Change Between Pre-Test And Post-Test)

Descriptive statistics	Groups		Test statistics [a]	P
	Contextual	Literal		
Mean	21.5	60.8		
Standard Deviation	22.4	26.4		
Median	16.5	63.5	z = -5.728	<0.001
Minimum	-5.0	5.0		
Maximum	87.0	97.0		

[a] z value of Mann-Whitney U test

The change score between pre-test and post-test of the groups was statistically analysed and Pre-test and post-test scores of the participants in the Contextual group (21.5 ± 22.4) and Pre-test and Post Test scores of the Literal group (60.8 ± 26.4) were found to be statistically significant (p <0.05).

Pre-test and post-test descriptive statistics of Contextual group are shown in Table 6 and pre-test and post-test descriptive statistics for the Literal group are shown in Table 7.

Table 6. Descriptive Statistics of Contextual Group

Descriptive statistics	Groups		Test statistics [a]	P
	Pre-test	Post-test		
Mean	9.8	31.4		
Standard Deviation	11.4	28.3		
Median	5.0	24.0	z = -5.238	<0.001
Minimum	0.0	0.0		
Maximum	65.0	100.0		

[a] z value of Wilcoxon Sign Rank test

Table 7. Descriptive Statistics of Literal Group

Descriptive statistics	Groups		Test statistics [a]	P
	Pre-test	Post-test		
Mean	23.7	84.5		
Standard Deviation	16.2	24.9		
Median	19.0	98.0	z = -5.647	<0.001
Minimum	3.0	15.0		
Maximum	73.0	100.0		

[a] z value of Wilcoxon Sign Rank test

4. FINDINGS AND DISCUSSION

In this study, the effects of some mobile applications on Contextual and Literal vocabulary teaching were investigated. In this respect, a 4-week education program was applied to two groups of 42 participants and the results were evaluated. Participants were randomly selected from students from Milk and Dairy Technology, Food Quality Control and Analysis, and Laboratories and Veterinary Health departments from the associate degree programs of the Susurluk Vocational School in Balıkesir University in Turkey. The students who were entitled to study in these departments entered a placement test administered by ÖSYM (Measuring, Selection and Placement Institution in Turkey) and scored as; Milk and Dairy Technology Department 176 points, Food Quality Control and Analysis Department 234 points and Laboratory and Veterinary Health Department 248 points respectively (http://www.osym.gov.tr., 2015). These scores indicate that the participants are intellectually close to each other. In addition to the intellectual status of the participants, the final grades of the Foreign Language I (English) course they have taken in the previous semester are compared in terms of determining the success of the English course and the results are given in Table 1 in the data analysis section. According to these results, the academic achievement average of the Contextual Instruction Group was 65.3 while the Literal Instruction Group's English course academic achievement average was 67.4. Although there is no significant difference between the groups' average, the academic achievement of the English course of the Literal Instruction Group appears to be higher. However, in the collection and analysis of these data, independent variables such as the structure of the English course in the previous semester, the attitude of the teacher, course contents and student motivation should be considered.

The pre-test scores of the students were analysed statistically by using the Mann-Whitney U test and a significant correlation was found between the Pre-test score average of the Contextual group (9.8 ± 11.4) and the Pre-test score average of the Literal group 23.7 ± 16.2), and the Literal group was found to be significantly higher than the average of the Contextual group. Normally, it is not desirable that Pre-Test scores differ because of the similarity principle between groups, but this study will not be affected by the abnormal distribution of Pre-Test scores, since the focus of this study is on to what extend the groups are improving. It is also expected that the Literal Instruction Group's high pre-test results will be high because the questions of the Literal Group include only low level cognitive activity such as memorization, while the questions of the Contextual Group include high level cognitive activities such as

inference, comprehension, background knowledge. Therefore, while the academic achievement averages of the previous semester, shown in Table 1, are close to each other for the two groups, and no such similarity is observed in the Pre-Test results. This information can be shown in the light of evidence that contextual vocabulary learning is a system involving all components of the language beyond a simple vocabulary learning process.

In table 3, Post-test scores applied to both groups were analysed by Mann-Whitney U test and Post-test scores of the students were evaluated statistically. It was found out that post-test score average (31.4 ± 28.3) of the Contextual Group and post-test score average 84.5 ± 24.9) of the Literal group is statistically significant, Literal Groups average was significantly higher than the average of the Contextual group. Post-test results show that progress has been achieved in both groups. These results suggest that mobile applications have a positive effect on both contextual and literal vocabulary instruction. In terms of Contextual Group, Table 5 shows an improvement from 9.8 points to 31.4 points in average. Although high scores cannot be achieved in terms of product based results, a considerable progress has been made in the process-based results. This suggests that the mobile applications used have a positive effect on contextual vocabulary teaching. This process, which is difficult to plan and control for the teacher and has various difficulties in the learning process for the student, has turned into a process that is easy to plan, more controllable and can be effectively applied due to the practical use of mobile applications. Mobile applications, with the technical possibilities they offer, allow the participants to use high-level cognitive activities and let them exploit their capacities to the full. As a result, there are several reasons why high scores cannot be achieved. First, contextual vocabulary learning involving high-level cognitive activities may be a process that transcends academic levels for participants who have an intellectually average level when the YGS entrance scores are considered. Because contextual vocabulary learning requires a high level of intellectual level, such as having a background knowledge of the subject, knowing what you read, analysing and deducing, other than knowing the meaning of words. Participants may be inadequate to meet intellectual requirements. Second, the other reason why the average is kept low may be the loss of motivation. Based on researcher's observations, it can be said that in such a challenging process, the participants have lost their motivation increasingly. Although mobile applications technically make the implication phase as concrete as possible, the difficult process has inevitably brought about the loss of motivation. From the perspective of the Literal Group, Table 5 shows an increase in average from 23.7 points to 84.5 points. In the light of this data, it can be argued that mobile applications have a very significant positive contribution to

the teaching of literal vocabulary instruction. Considering both result-based and process-based results, significant increases are noticed in both areas. It can be argued that with mobile applications, literal vocabulary learning which addresses lower-level cognitive activities has become a process that can be more effectively guided and used. In addition to classical flashcard teaching, post-test results show that how mobile applications are fairly effective in vocabulary instruction with keeping records of results according to application characteristics, making interpretation of the progress through the records, making the word memorization process more systematic, and diversifying the process with games, tests and quiz functions.

In conclusion, this study investigated the effect of certain mobile applications on contextual and literal vocabulary instruction, and when the results in Table 4 are examined, it can be concluded that mobile applications are effective in both literal and contextual vocabulary instruction, but the effect on literal vocabulary learning is considerably greater. However, as noted in the section on limitations, this research was conducted on a group of participants with a medium level English academic achievement and intellectual level, with specific mobile applications selected and consequently these results were obtained.

5. CONCLUSIONS AND RECOMMENDATIONS

This study aimed to find out the effectiveness of mobile applications on the contextual and literal vocabulary instruction. 84 freshmen university students were chosen as the participants of the study and they were divided into two groups as contextual instruction group and literal instruction group. Both groups were trained in a six-week instruction programme. For the contextual group, the mobile apps which are effective in teaching the vocabulary were chosen and participants used these apps during the training sessions. For the literal group, an app that is designed to teach the vocabulary literally (mostly flashcard apps) was chosen and participants studied vocabulary using these apps. A pre-test and a post-test were administered to participants and the results were analysed with SPSS software. According to the analysis results, both groups showed improvements in their post-test scores, but literal instruction group outperformed the contextual instruction group.

As stated in the 'problems' section of the study, literal learning, in other words, memorization, is regarded as an innate skill which creates an unequal atmosphere in classrooms between learners because some learners will be more 'gifted' than others in terms of memorizing the words. This statement can be counted as an advantage for the literal instruction group and can be regarded as one of the factors positively affecting the post-test results of the literal instruction group. Memorization has been a widely used technique in all educational fields in Turkey, especially in language learning. Though the latest developments and updates in language teaching policies in Turkey, practically memorization technique prevailed its dominance over other techniques in language classrooms. Thus, language learners in Turkey rely much on memorization technique and the participants of this study are familiar with it from their previous experiences. This situation can be regarded as another factor in the success of the literal instruction group.

With the radical shift from behaviourism to constructivism in language instruction policies, contextual vocabulary instruction has gained significant importance covering all aspects of the constructivist theory. Contextual vocabulary instruction requires active learners taking part in language learning process performing their cognitive skills and at the same time make use of their prior knowledge. In this learner-based process, they are expected to construct the knowledge by making inferences from their present and prior knowledge. So, this means that contextual learning requires high-level cognitive skills. The apps chosen for the participants

include functions to trigger their cognitive skills, but it is a fact that learners should intellectually be equipped enough to use these apps. The main problem that the participants of the contextual instruction group faced is not the use of mobile apps but making inferences from the given knowledge. Since the participants' intellectual levels were mediocre when their university entrance exam results could be regarded as an indicator, this process could be challenging or them. However, the functionality of apps made this process easier, but it can be suggested that learners who are not intellectually high-level can find contextual instruction process challenging and demotivating. Motivation is a crucial factor in this process because learners get motivated as they see outcomes of their effort and in contextual vocabulary instruction, unlike literal one, it takes time to see the outcomes of their effort which can be a demotivating issue for the learners. Also, contextual group's participants were required to make a great effort when compared to literal group's participants. These factors can be seen as the main reasons for the contextual instruction group's low post-test scores when compared to literal group's post-test scores.

In this point, several recommendations can be made according to the results of the study. First, it was seen that mobile apps are effective in both contextual and literal vocabulary instruction. For this reason, mobile apps can be implemented into the language learning process in schools. But at this point, there is a crucial factor to be taken into consideration. Mobile apps chosen must be suitable for the level of the students and should be designed by experts. In app market, there are lots of applications designed by users and do not have a scientific background. This type of apps can yield harmful results for the learners. Second, user-designed mobile apps mainly focus on literal vocabulary learning, in other words, flashcard apps. Word memorization apps just intend to teach words' literal meanings along with a catchy interface. In this way of learning, learning occurs at the short-term memory. The words memorized can be forgotten after a certain period of time and the learner keeps memorizing the words again and again. This process yields from knowing how to use the words to just memorize the literal meanings of the words resulting in interfering production because of learners' motivation shifts from production to memorization. An unguided app chose by the learners may lead misconceptions in vocabulary learning. Third, as stated, contextual vocabulary learning covers high-level cognitive skills. The level of the students should be taken into consideration while choosing the appropriate contextual vocabulary apps. It is clear that with the help of their practical functions, mobile apps make this sophisticated process easier but the type of the activities and learning method that mobile app uses should be suitable to the learners' level. Fourth, it is a well-known

fact that smartphones are an indispensable part of our lives and for a long time, they have been used effectively for educational purposes. It would be wise to implement smartphones into learning process effectively rather than forbidding the use of them in schools or leaving learners alone in choosing the learning apps for themselves. A guided and controlled implementation of smartphones can enhance the effectiveness and quality of language learning process.

REFERENCES

Ahmad, J. (2011). Intentional vs. incidental vocabulary learning. Interdisciplinary Journal of Contemporary Research in Business, 3(5), 67.

Ahmad, K. S., Sudweeks, F., and Armarego, J. (2015). Learning English vocabulary in a Mobile Assisted Language Learning (MALL) environment: A sociocultural study of migrant women. Interdisciplinary Journal of e-Skills and Life Long Learning, 11, 25-45.

Aitchison, J. (2012). Words in the mind: An introduction to the mental lexicon. John Wiley and Sons.

Alali, F. A., and Schmitt, N. (2012). Teaching Formulaic Sequences: The Same as or Different From Teaching Single Words?. *TESOL Journal*, *3*(2), 153-180.

Alemi, M., Sarab, M. R. A., and Lari, Z. (2012). Successful learning of academic word list via MALL: Mobile Assisted Language Learning. International Education Studies, 5(6), 99-109.

Alipour Madarsara, F., Youhanaee, M., Barati, H., and Nasirahmadi, A. (2015). Intentional vs. incidental vocabulary learning through games by young EFL Persian speakers. International Journal of Research Studies in Educational Technology, 4(1).

Amiryousefi, M., and Dastjerdi, H. V. (2010). Vocabulary: Challenges and debates. English Language Teaching, 3(3), 89.

Anderson, R. C., and Freebody, P. (1979). Vocabulary Knowledge. Technical Report No. 136.

Asher, J. J. (1981). The total physical response: Theory and practice. Annals of the New York Academy of Sciences, 379(1), 324-331.

Barcroft, J. (2004). Second language vocabulary acquisition: A lexical input processing approach. *Foreign Language Annals*, *37*(2), 200-208.

Barcroft, J., Schmitt, N., and Sunderman, G. (2011). Lexis. In J. Simpson (Ed.), The Routledge Handbook of Applied Linguistics (pp. 571-583). Abingdon, UK / New York: Routledge

Basal, A., Yilmaz, S., Tanriverdi, A., and Sari, L. (2016). Effectiveness of Mobile Applications in Vocabulary Teaching. Contemporary Educational Technology, 7(1), 47-59.

Basoglu, E. B., and Akdemir, Ö. (2010). A comparison of undergraduate students' English vocabulary learning: Using mobile phones and flash cards. TOJET: The Turkish Online Journal of Educational Technology, 9(3).

Bensoussan, M., and Laufer, B. (1984). Lexical guessing in context in EFL reading comprehension. Journal of Research in Reading, 7(1), 15-32.

Biemiller, A., Rosenstein, M., Sparks, R., Landauer, T. K., and Foltz, P. W. (2014). Models of vocabulary acquisition: Direct tests and text-derived simulations of vocabulary growth. *Scientific Studies of Reading*, *18*(2), 130-154.

Budiu, R. (2013). Mobile: Native Apps, Web Apps, and Hybrid Apps. [online] Nngroup.com. Available at: https://www.nngroup.com/articles/mobile-native-apps/ [Accessed 9 Jul. 2017].

Burston, J. (2013). Mobile-assisted language learning: A selected annotated bibliography of implementation studies 1994–2012.

Burston, J. (2015). Twenty years of MALL project implementation: A meta-analysis of learning outcomes. ReCALL, 27(1), 4-20.

Calabrich, S. L. (2016). Learners' Perceptions of the Use of Mobile Technology in a Task-Based Language Teaching Experience. International Education Studies, 9(12), 120-136.

Chen, Y., Carger, C. L., and Smith, T. J. (2017). Mobile-assisted narrative writing practice for young english language learners from a funds of knowledge approach. Language learning and technology, 21(1), 28-41.

Clark, J. L., and Hooshmand, D. (1992). "Screen-to-screen" testing: An exploratory study of oral proficiency interviewing using video teleconferencing. System, 20(3), 293-304.

Cohen, A. D. (2014). Strategies in learning and using a second language. Routledge.

Coskun, A. (2016). Causes of the 'I can understand English but I can't speak' Syndrome in Turkey. i-Manager's Journal on English Language Teaching, 6(3), 1.

Crandall, J. (1999). Content-based instruction (CBI). Concise encyclopedia of educational linguistics. Oxford, UK: Cambridge University Press.

Cronbach LJ. 1942. An analysis of techniques for systematic vocabulary testing. J. Educ. Res. 36:206–17

Cunningham, J. W., Cunningham, P. M., and Arthur, S. V. (1981). Middle and secondary school reading. Longman Publishing Group.

Czerska-Andrzejewska, D. (2016). Mobile assisted language learning. Zeszyty Glottodydaktyczne, 2016(Zeszyt 6 (2016)), 43-52.

David, J. L. (2010). Closing the vocabulary gap. Educational Leadership, 67(6), 85-86.

Dictionary of Contemporary English (2016), 1st ed. [online] Longman. Available at: http://www.ldoceonline.com/dictionary/vocabulary [Accessed 30 Apr. 2016].

Ellis, R. (1985). Understanding Second Language Acquisition. Oxford, U.K.: Oxford

Ellis, R. (2003). Task-based language learning and teaching. Oxford University Press.

Ellis, R. (2009). Task-based language teaching: Sorting out the misunderstandings. International Journal of Applied Linguistics, 19(3), 221-246.

Fageeh, A. A. I. (2013). Effects of MALL applications on vocabulary acquisition and motivation. Arab World English Journal, 4(4).

Fazeli, S. H. (2012). The Exploring Nature of Vocabulary Acquisition and Common Main Gaps in the Current Studies of Vocabulary Acquisition. Online Submission, 12(3), 175-189.

Folse, K. S. (2004). Vocabulary myths: Applying second language research to classroom teaching (No. Sirsi) i9780472030293). Ann Arbor, MI: University of Michigan Press.

Gattegno, C. (2010). Teaching foreign languages in schools: The silent way. Educational Solutions World.

Goh, C. C. (2000). A cognitive perspective on language learners' listening comprehension problems. System, 28(1), 55-75.

Graves, M. F. (1987). The roles of instruction in fostering vocabulary. The nature of vocabulary acquisition, 165-184.

Gsmarena.com. (2017). List of all mobile phone brands - GSMArena.com. [online] Available at: http://www.gsmarena.com/makers.php3 [Accessed 4 Jul. 2017].

Harmer, J. (1991). The practice of English language teaching. London/New York.

Holmes, E. (1934). Vocabulary instruction and reading. The Elementary English Review, 11(4), 103-110.

Holzer, A., and Ondrus, J. (2011). Mobile application market: A developer's perspective. Telematics and informatics, 28(1), 22-31.

http://www.osym.gov.tr. (2015). Tablo-3. Merkezi Yerleştirme İle Öğrenci Alan Yükseköğretim Ön Lisans Programları. [online] Available at: http://dokuman.osym.gov.tr/pdfdokuman/2015/OSYS/TABLO-301072015.xls [Accessed 16 Sep. 2017].

Huckin, T., and Coady, J. (1999). Incidental vocabulary acquisition in a second language. Studies in Second Language Acquisition, 21(2), 181-193.

Jackson, H., and Amvela, E. Z. (2007). *Words, meaning and vocabulary: an introduction to modern English lexicology*. Bloomsbury Publishing.

Jalalifarahani, M., and Ghovehnodoushan, M. (2011). MALL and Vocabulary Learning in Elementary Students. Retrieved May, 19, 2016.

Jalongo, M. R., and Sobolak, M. J. (2011). Supporting young children's vocabulary growth: The challenges, the benefits, and evidence-based strategies. Early Childhood Education Journal, 38(6), 421-429.

Jean, G., and Simard, D. (2013). Deductive versus inductive grammar instruction: Investigating possible relationships between gains, preferences and learning styles. System, 41(4), 1023-1042.

Johnson, D., and Steele, V. (1996). So many words, so little time: Helping college ESL learners acquire vocabulary-building strategies. Journal of Adolescent and Adult Literacy, 39(5), 348-357.

Jones, C., and Fortescue, S. (1987). Using computers in the language classroom. Addison-Wesley Longman Limited.

Kaivanpanah, S., and Alavi, S. M. (2008). The role of linguistic knowledge in word-meaning inferencing. *System*, *36*(2), 172-195.

Khoii, R., and Sharififar, S. (2013). Memorization versus semantic mapping in L2 vocabulary acquisition. ELT journal, 67(2), 199-209.

Kim, H., and Kwon, Y. (2012). Exploring smartphone applications for effective mobile-assisted language learning. Multimedia-Assisted Language Learning, 15(1), 31-57.

Klopfer, E., Squire, K., and Jenkins, H. (2002). Environmental detectives: PDAs as a window into a virtual simulated world. In Wireless and Mobile Technologies in Education, 2002. Proceedings. IEEE International Workshop on (pp. 95-98). IEEE.

Kominsky, J. F., and Keil, F. C. (2014). Overestimation of knowledge about word meanings: The "misplaced meaning" effect. *Cognitive science*, *38*(8), 1604-1633.

Krashen, S. (1989). We acquire vocabulary and spelling by reading: Additional evidence for the input hypothesis. *The modern language journal*, *73*(4), 440-464.

Krashen, S. D. (1985). *The input hypothesis: Issues and implications*. Addison-Wesley Longman Ltd.

Kresan, S. (1981). Second Language Acquisition and Second Language Learning.

Lan, Y. J., Sung, Y. T., and Chang, K. E. (2007). A mobile-device-supported peer-assisted learning system for collaborative early EFL reading.

Larsen-Freeman, D., and Anderson, M. (2013). *Techniques and Principles in Language Teaching 3rd edition*. Oxford university press.

LEAD21. (2016). Vocabulary Teaching and Learning. Retrieved September 03, 2016, from http://www.doe.in.gov/sites/default/files/curriculum/research-base-vocabulary.pdf

Lessard-Clouston, M. (2013). *Teaching Vocabulary*. TESOL International Association. 1925 Ballenger Avenue Suite 550, Alexandria, VA 22314.

Levy, M. (1997). Computer-assisted language learning: Context and conceptualization. Oxford University Press.

Lewis, M., and Gough, C. (1997). Implementing the lexical approach: Putting theory into practice (Vol. 3, No. 1, pp. 223-232). Hove: Language Teaching Publications.

Lin, Y. H., Lin, Y. C., Lee, Y. H., Lin, P. H., Lin, S. H., Chang, L. R., ... and Kuo, T. B. (2015). Time distortion associated with smartphone addiction: Identifying smartphone addiction via a mobile application (App). Journal of psychiatric research, 65, 139-145.

Littlewood, W. (1981). Communicative language teaching: An introduction. Cambridge University Press.

Littlewood, W. (1996). "Autonomy": An anatomy and a framework. System, 24(4), 427-435.

Lotfi, G. (2012). A questionnaire of beliefs on English language listening comprehension problems: Development and validation. World Applied Sciences Journal, 16(4), 508-515.

Marslen-Wilson, W., Tyler, L. K., Waksler, R., and Older, L. (1994). Morphology and meaning in the English mental lexicon. Psychological review, 101(1), 3.

Miangah, T. M., and Nezarat, A. (2012). Mobile-assisted language learning. International Journal of Distributed and Parallel Systems, 3(1), 309.

Nagy, W. E. (1995). On the role of context in first-and second-language vocabulary learning. Champaign, Ill.: University of Illinois at Urbana-Champaign, Center for the Study of Reading..

Naismith, L., and Corlett, D. (2006). Reflections on success: A retrospective of the mLearn conference series 2002-2005. In mLearn 2006: Across generations and cultures (pp. 29-pages).

Nation, I. S. (2001). Learning vocabulary in another language. Ernst Klett Sprachen.

National Association of Elementary School Principals. (2015). Four Components of Effective Vocabulary Instruction. Retrieved September 03, 2016, from http://www.naesp.org/communicator-may-2015/4-components-effective-vocabulary-instruction

National Reading Panel. 2000. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction. Washington, DC: National Institute of Child Health and Human Development.

O'Reilly, T. (2005). *What is web 2.0?*. 2nd ed. New York: Radar Publishing.

O'malley, J. M., and Chamot, A. U. (1990). Learning strategies in second language acquisition. Cambridge university press.

Oxford Learner's Dictionary (2016), 1st ed. [online] Available at: http://www.oxfordlearnersdictionaries.com/definition/english/vocabulary?q=vocabulary [Accessed 30 Apr. 2016].

Oxford, R. L. (1990). Language learning strategies: What every teacher should know. Newbury House Publishers.

Oxford, R., and Crookall, D. (1990). Vocabulary learning: A critical analysis of techniques. TESL Canada Journal, 7(2), 09-30.

Poulin-Dubois, D., Graham, S., and Sippola, L. (1995). Early lexical development: The contribution of parental labelling and infants' categorization abilities. Journal of Child Language, 22(02), 325-343.

Rapaport, W. J. (2005). In defence of contextual vocabulary acquisition: How to do things with words in context.

Rapaport, W. J., and Kibby, M. W. (2002). Contextual vocabulary acquisition: A computational theory and educational curriculum.

Rapaport, W. J., and Kibby, M. W. (2010). Contextual vocabulary acquisition: From algorithm to curriculum. In Integration of Knowledge Intensive Multi-Agent Systems, 2003. International Conference on (pp. 306-311). IEEE.

Rashidi, N., and Ganbari Adivi, A. (2010). Incidental vocabulary learning through comprehension-focused reading of short stories. Journal of English Language Teaching and Learning, 2(217), 111-129.

Richards, J. C. (1976). The role of vocabulary teaching. TESOl Quarterly, 77-89.

Richards, J. C., and Rodgers, T. S. (2014). Approaches and methods in language teaching. Cambridge university press.

Play.google.com. (2017). Google Play Vocabulary Apps. [online] Available at: https://play.google.com/store/search?q=vocabularyandc=apps [Accessed 16 Aug. 2017].

Saengpakdeejit, R. (2014). Strategies for Dealing with Vocabulary Learning Problems by Thai University Students.

Sapargul, D., and Sartor, V. (2010). The Trans-Cultural Comparative Literature Method: Using Grammar Translation Techniques Effectively. In English Teaching Forum (Vol. 48, No. 3, pp. 26-33). US Department of State. Bureau of Educational and Cultural Affairs,

Office of English Language Programs, SA-5, 2200 C Street NW 4th Floor, Washington, DC 20037.

Sarani, A., and Sahebi, L. F. (2012). The Impact of Task-Based Approach on Vocabulary Learning in ESP Courses. English Language Teaching, 5(10), 118-128.

Schmitt, N. (1997). Vocabulary learning strategies. Vocabulary: Description, acquisition and pedagogy, 199227.

Schmitt, N. (2008). Review article: Instructed second language vocabulary learning. Language teaching research, 12(3), 329-363.

Shahrzad, A., and Derakhshan, A. (2011). The effect of instruction in deriving word meaning on incidental vocabulary learning in EFL context. World Journal of English Language, 1(1), 68.

Sharples, M., Taylor, J., and Vavoula, G. (2010). A theory of learning for the mobile age. Medienbildung in neuen Kulturräumen, 87-99.

Smith, S., Kilgarriff, A., and Sommers, S. (2008). Making better wordlists for ELT: Harvesting vocabulary lists from the web using WebBootCat. Retrieved from.

Sonbul, S., and Schmitt, N. (2009). Direct teaching of vocabulary after reading: is it worth the effort?. ELT journal, ccp059.

Tabrizi, A. R. N., and Feiz, F. S. (2016) The Effect of Deliberate Versus Incidental Vocabulary Learning Strategy on Iranian High School Students' Vocabulary Learning.

Texas Education Agency. (2002). Promoting Vocabulary Development; Components of Effective Vocabulary Instruction. Retrieved September 03, 2016, from http://tea.texas.gov/WorkArea/linkit.aspx?LinkIdentifier=idandItemID=2147486270andlibID=2147486269

The IRIS Center. (2012). Secondary Reading Instruction: Teaching Vocabulary and Comprehension in the Content Areas. Retrieved from

Thornbury, S. (2006). *How to teach vocabulary*. Pearson Education India.

Traxler, J. (2007). Defining, Discussing and Evaluating Mobile Learning: The moving finger writes and having writ.... The International Review of Research in Open and Distributed Learning, 8(2).

Tuik.gov.tr. (2017). Turkish Statistic Foundation. [online] Available at: http://www.tuik.gov.tr/PreIstatistikTablo.do?istab_id=45 [Accessed 1 Jul. 2017].

Valarmathi, K. E. (2011). Mobile assisted language learning. Journal of Technology for ELT, 2(2), 1-8.

Viswanathan, P. (2017). What Is a Mobile Device?. [online] Lifewire. Available at: https://www.lifewire.com/what-is-a-mobile-device-2373355 [Accessed 3 Jul. 2017].

Wang, S., and Smith, S. (2013). Reading and grammar learning through mobile phones. Language Learning and Technology, 17(3), 117-134.

Warschauer M. (1996) "Computer Assisted Language Learning: an Introduction". In Fotos S. (ed.) Multimedia language teaching, Tokyo: Logos International: 3-20.

Wenden, A., and Rubin, J. (Eds.). (1987). Learning strategies in language learning. Prentice-Hall International.

Wharton, C. P. (2010). *Changing Associations: The Effect of Direct Vocabulary Instruction on the Word Associations of Japanese College Students* (Doctoral dissertation, University of Birmingham).

Wilkins, D. A. *Linguistics in language Teaching* (Doctoral dissertation, London: Edward Amold, l972).

Wilkins, David A. (1972). Linguistics and Language Teaching. London: Edward Arnold.

Wu, Q. (2015). Designing a smartphone app to teach English (L2) vocabulary. Computers and Education, 85, 170-179.

www.idc.com. (2017). IDC: Smartphone OS Market Share. [online] Available at: http://www.idc.com/promo/smartphone-market-share/os [Accessed 7 Jul. 2017].

Zimmerman, C. B. (1997). Historical trends in second language vocabulary instruction. Second language vocabulary acquisition, 5-19.

APPENDICES

Appendix 1: Lesson plans of training session for contextual and literal instruction group.

LESSON PLAN FOR CONTEXTUAL VOCABULARY INSTRUCTION

			WEEK 1			
		Objective	*Method*	*Duration*	*Materials*	*Target Vocabulary*
Pre - Class		Ss will be introduced the target vocabulary.	The list of target vocabulary and their definitions will be given to Ss before class.	No time limit	✓ WhatsApp Messenger	*Expert, Experiment, Human, Face, Tell the difference, Heartbeat, Special, Relationship, Relaxed, Scared*
During Class	**Engage**	Ss will be engaged into the topic by a video that includes the target vocabulary.	SS will watch a real-life video named 'Horses can read emotions'. They are asked what they know about horses.	10 mins.	✓ YouTube App ✓ Video News ✓ Personal Earphones	*Expert, Experiment, Human, Face, Tell the difference, Heartbeat, Special, Relationship, Relaxed, Scared*
	Study	SS will learn the lexical definitions of target vocabulary.	The lexical definitions of words will be shared with Ss along with pictures, videos and phrases.	10 mins.	✓ WhatsApp Messenger ✓ Word Cards	*Expert, Experiment, Human, Face, Tell the difference, Heartbeat, Special, Relationship, Relaxed, Scared*
		Words will be introduced Ss within a context.	Ss will be introduced the words in a reading passage about the video watched at the beginning.	10 mins.	✓ WhatsApp Messenger	*Expert, Experiment, Human, Face, Tell the difference, Heartbeat, Special, Relationship, Relaxed, Scared*
	Activate	Ss will check their knowledge with an interactive multiple-choice quiz	With an interactive multiple-choice quiz game, Ss will compete with each other.	10 mins.	✓ Socrative Quiz Application	*Expert, Experiment, Human, Face, Tell the difference, Heartbeat, Special, Relationship, Relaxed, Scared*
		The results of the game will be discussed with Ss.	The results of the quiz game will be shared with Ss and the game may be repeated.	5 mins.	✓ Socrative Quiz Application	*Expert, Experiment, Human, Face, Tell the difference, Heartbeat, Special, Relationship, Relaxed, Scared*
After Class		A versatile quiz will be applied to Ss.	Ss will be announced to join a versatile quiz at a pre-defined hour with an online distant quiz.	No time limit	✓ Socrative Quiz Application	*Expert, Experiment, Human, Face, Tell the difference, Heartbeat, Special, Relationship, Relaxed, Scared*

LESSON PLAN FOR CONTEXTUAL VOCABULARY INSTRUCTION

		Objective	*Method*	*Duration*	*Materials*	*Target Vocabulary*
WEEK 2						
Pre - Class		Ss will be able to know the words that will be studied beforehand	The list of target vocabulary and their meaning will be given to Ss before class.	No time limit	✓ WhatsApp Messenger	*Bat, Blood, Drink, Winner, Mouth, Tower, Guest, Body, Believe, See*
During Class	**Engage**	Ss will be engaged into the topic.	SS will be presented a prezi presentation that gives information about Dracula	10 mins.	✓ Prezi Viewer Application ✓ Audio file ✓ Personal Earphones	*Bat, Blood, Drink, Winner, Mouth, Tower, Guest, Body, Believe, See*
	Study	SS will be able to know the lexical definitions of target words.	The lexical definitions of words will be shared with Ss along with pictures and phrases. SS will try to guess the meaning of the words presented.	10 mins.	✓ Prezi Viewer Application ✓ Pictures	*Bat, Blood, Drink, Winner, Mouth, Tower, Guest, Body, Believe, See*
		Ss will be able to identify target words within a context.	Ss will be introduced the words in a reading passage about the words presented. Students will answer the comprehension questions over Socrative application	10 mins.	✓ Prezi Viewer Application ✓ Edmodo Application ✓ Socrative Application	*Bat, Blood, Drink, Winner, Mouth, Tower, Guest, Body, Believe, See*
	Activate	Ss will be able to answer questions about target words.	With an interactive multiple choice quiz game, Ss will compete with each other.	10 mins.	✓ Socrative Quiz Application	*Bat, Blood, Drink, Winner, Mouth, Tower, Guest, Body, Believe, See*
		Ss will be able to evaluate their progress.	The results of the quiz game will be shared with Ss and the game may be repeated in 'ghost mode'.	5 mins.	✓ Socrative Quiz Application	*Bat, Blood, Drink, Winner, Mouth, Tower, Guest, Body, Believe, See*
After Class		Ss will be able to check their word knowledge after class.	Ss will be announced to join a versatile quiz at a pre-defined hour with an online distance quiz.	No time limit	✓ Socrative Quiz Application	*Bat, Blood, Drink, Winner, Mouth, Tower, Guest, Body, Believe, See*

LESSON PLAN FOR CONTEXTUAL VOCABULARY INSTRUCTION

		Objective	Method	Duration	Materials	Target Vocabulary
Pre - Class		Ss will be introduced the target vocabulary.	The list of target vocabulary and their meaning will be given to Ss before class.	No time limit	✓ WhatsApp Messenger	Write, Letter, Chimney, Tear down, Builder, Contact, Put, Never, Stay, Picture
During Class	**Engage**	Ss will be engaged into the topic by a video that includes the target vocabulary.	SS will watch a video named 'Old Letter in a Chimney'. They are asked what they know about horses.	10 mins.	✓ YouTube App ✓ Video News ✓ Personal Earphones	Write, Letter, Chimney, Tear down, Builder, Contact, Put, Never, Stay, Picture
	Study	SS will learn the lexical definitions of target vocabulary.	The lexical definitions of words will be shared with Ss along with pictures and phrases.	10 mins.	✓ Prezi Viewer Application ✓ Pictures	Write, Letter, Chimney, Tear down, Builder, Contact, Put, Never, Stay, Picture
		Words will be introduced Ss within a context.	Ss will be introduced the words in a reading passage about the video watched at the beginning.	10 mins.	✓ Prezi Viewer Application ✓ Edmodo Application	Write, Letter, Chimney, Tear down, Builder, Contact, Put, Never, Stay, Picture
	Activate	Ss will check their knowledge with an interactive multiple choice quiz	With an interactive multiple choice quiz game, Ss will compete with each other.	10 mins.	✓ Socrative Quiz Application	Write, Letter, Chimney, Tear down, Builder, Contact, Put, Never, Stay, Picture
		The results of the game will be discussed with Ss.	The results of the quiz game will be shared with Ss and the game may be repeated in 'ghost mode'.	5 mins.	✓ Socrative Quiz Application	Write, Letter, Chimney, Tear down, Builder, Contact, Put, Never, Stay, Picture
After Class		A versatile quiz will be applied to Ss.	Ss will be announced to join a versatile quiz at a pre-defined hour with an online distance quiz.	No time limit	✓ Socrative Quiz Application	Write, Letter, Chimney, Tear down, Builder, Contact, Put, Never, Stay, Picture

LESSON PLAN FOR CONTEXTUAL VOCABULARY INSTRUCTION

			Objective	Method	Duration	Materials	Target Vocabulary
WEEK 4							
Pre - Class			Ss will be introduced the target vocabulary.	The list of target vocabulary and their meaning will be given to Ss before class.	No time limit	✓ WhatsApp Messenger	*Series, Popular, Author, Sell, Language, Together, Curse, Buy, Different, Adult*
During Class		**Engage**	Ss will be engaged into the topic by a video that includes the target vocabulary.	SS will watch a video named 'Harry Potter is back'. They are asked what they know about Harry Potter movies.	10 mins.	✓ YouTube App ✓ Video News ✓ Personal Earphones	*Series, Popular, Author, Sell, Language, Together, Curse, Buy, Different, Adult*
		Study	SS will learn the lexical definitions of target vocabulary.	The lexical definitions of words will be shared with Ss along with pictures and phrases.	10 mins.	✓ WhatsApp Messenger ✓ Pictures	*Series, Popular, Author, Sell, Language, Together, Curse, Buy, Different, Adult*
			Words will be introduced Ss within a context.	Ss will be introduced the words in a reading passage about the video watched at the beginning.	10 mins.	✓ Edmodo Application ✓ WhatsApp Messenger	*Series, Popular, Author, Sell, Language, Together, Curse, Buy, Different, Adult*
		Activate	Ss will check their knowledge with an interactive multiple choice quiz	With an interactive multiple choice quiz game, Ss will compete with each other.	10 mins.	✓ Socrative Quiz Application	*Series, Popular, Author, Sell, Language, Together, Curse, Buy, Different, Adult*
			The results of the game will be discussed with Ss.	The results of the quiz game will be shared with Ss and the game may be repeated in 'ghost mode'.	5 mins.	✓ Socrative Quiz Application	*Series, Popular, Author, Sell, Language, Together, Curse, Buy, Different, Adult*
After Class			A versatile quiz will be applied to Ss.	Ss will be announced to join a versatile quiz at a pre-defined hour with an online distance quiz.	No time limit	✓ Socrative Quiz Application	*Series, Popular, Author, Sell, Language, Together, Curse, Buy, Different, Adult*

LESSON PLAN FOR LITERAL VOCABULARY INSTRUCTION

		WEEK 1				
		Objective	*Method*	*Duration*	*Materials*	*Target Vocabulary*
Pre - Class		Ss will be introduced the target vocabulary.	The list of target vocabulary and their meaning will be given to Ss before class.	No time limit	✓ WhatsApp Messenger	*Expert, Experiment, Human, Face, Tell the difference, Heartbeat, Special, Relationship, Relaxed, Scared*
During Class	**Engage**	Ss will be engaged into the topic by a video that includes the target vocabulary.	SS will watch a real-life video named 'Horses can read emotions'. They are asked what they know about horses.	10 mins.	✓ WhatsApp Messenger ✓ YouTube App	*Expert, Experiment, Human, Face, Tell the difference, Heartbeat, Special, Relationship, Relaxed, Scared*
	Study	SS will learn the lexical definitions of target vocabulary.	The bilingual word lists will be shared with students.	10 mins.	✓WhatsApp Messenger ✓Word Cards	*Expert, Experiment, Human, Face, Tell the difference, Heartbeat, Special, Relationship, Relaxed, Scared*
		Words will be studied over.	Ss will try to memorize the target vocabulary with a flashcard app	10 mins.	✓Cram Flashcard App	*Expert, Experiment, Human, Face, Tell the difference, Heartbeat, Special, Relationship, Relaxed, Scared*
	Activate	Ss will check their knowledge with an interactive multiple-choice quiz	With an interactive multiple-choice quiz game, Ss will compete with each other.	10 mins.	✓ Kahoot Application	*Expert, Experiment, Human, Face, Tell the difference, Heartbeat, Special, Relationship, Relaxed, Scared*
		The results of the game will be discussed with Ss.	The results of the quiz game will be shared with Ss and the game may be repeated.	5 mins.	✓ Kahoot Application	*Expert, Experiment, Human, Face, Tell the difference, Heartbeat, Special, Relationship, Relaxed, Scared*
After Class		A versatile quiz will be applied to Ss.	Ss will be announced to join a versatile quiz at a pre-defined hour with an online distance quiz.	No time limit	✓ Kahoot Application	*Expert, Experiment, Human, Face, Tell the difference, Heartbeat, Special, Relationship, Relaxed, Scared*

LESSON PLAN FOR LITERAL VOCABULARY INSTRUCTION

		Objective	Method	Duration	Materials	Target Vocabulary
WEEK 2						
Pre - Class		Ss will be able to know the words that will be studied beforehand	The list of target vocabulary and their meaning will be given to Ss before class.	No time limit	✓ WhatsApp Messenger	*Bat, Blood, Drink, Winner, Mouth, Tower, Guest, Body, Believe, See*
During Class	**Engage**	Ss will be engaged into the topic.	SS will be presented a prezi presentation that gives information about Dracula	10 mins.	✓ Prezi Viewer Application ✓ Audio file ✓ Personal Earphones	*Bat, Blood, Drink, Winner, Mouth, Tower, Guest, Body, Believe, See*
	Study	SS will learn the lexical definitions of target vocabulary.	The bilingual word lists will be shared with students.	10 mins.	✓ WhatsApp Messenger ✓ Word Cards	*Bat, Blood, Drink, Winner, Mouth, Tower, Guest, Body, Believe, See*
		Words will be studied over.	Ss will try to memorize the target vocabulary with a flashcard app	10 mins.	✓ Cram Flashcard App	*Bat, Blood, Drink, Winner, Mouth, Tower, Guest, Body, Believe, See*
	Activate	Ss will be able to answer questions about target words.	With an interactive multiple choice quiz game, Ss will compete with each other.	10 mins.	✓ Kahoot Application	*Bat, Blood, Drink, Winner, Mouth, Tower, Guest, Body, Believe, See*
		Ss will be able to evaluate their progress.	The results of the quiz game will be shared with Ss and the game may be repeated in 'ghost mode'.	5 mins.	✓ Kahoot Application	*Bat, Blood, Drink, Winner, Mouth, Tower, Guest, Body, Believe, See*
After Class		Ss will be able to check their word knowledge after class.	Ss will be announced to join a versatile quiz at a pre-defined hour with an online distance quiz.	No time limit	✓ Kahoot Application	*Bat, Blood, Drink, Winner, Mouth, Tower, Guest, Body, Believe, See*

LESSON PLAN FOR LITERAL VOCABULARY INSTRUCTION

		Objective	*Method*	*Duration*	*Materials*	*Target Vocabulary*
Pre - Class		Ss will be introduced the target vocabulary.	The list of target vocabulary and their meaning will be given to Ss before class.	No time limit	✓ WhatsApp Messenger	*Write, Letter, Chimney, Tear down, Builder, Contact, Put, Never, Stay, Picture*
During Class	**Engage**	Ss will be engaged into the topic by a video that includes the target vocabulary.	SS will watch a video named 'Old Letter in a Chimney'. They are asked what they know about horses.	10 mins.	✓ YouTube App ✓ Video News ✓ Personal Earphones	*Write, Letter, Chimney, Tear down, Builder, Contact, Put, Never, Stay, Picture*
	Study	SS will learn the lexical definitions of target vocabulary.	The bilingual word lists will be shared with students.	10 mins.	✓WhatsApp Messenger ✓Word Cards	*Write, Letter, Chimney, Tear down, Builder, Contact, Put, Never, Stay, Picture*
		Words will be studied over.	Ss will try to memorize the target vocabulary with a flashcard app	10 mins.	✓Cram Flashcard App	*Write, Letter, Chimney, Tear down, Builder, Contact, Put, Never, Stay, Picture*
	Activate	Ss will check their knowledge with an interactive multiple choice quiz	With an interactive multiple choice quiz game, Ss will compete with each other.	10 mins.	✓ Kahoot Application	*Write, Letter, Chimney, Tear down, Builder, Contact, Put, Never, Stay, Picture*
		The results of the game will be discussed with Ss.	The results of the quiz game will be shared with Ss and the game may be repeated in 'ghost mode'.	5 mins.	✓ Kahoot Application	*Write, Letter, Chimney, Tear down, Builder, Contact, Put, Never, Stay, Picture*
After Class		A versatile quiz will be applied to Ss.	Ss will be announced to join a versatile quiz at a pre-defined hour with an online distance quiz.	No time limit	✓ Kahoot Application	*Write, Letter, Chimney, Tear down, Builder, Contact, Put, Never, Stay, Picture*

WEEK 3

LESSON PLAN FOR LITERAL VOCABULARY INSTRUCTION

			Objective	Method	Duration	Materials	Target Vocabulary
WEEK 4							
Pre - Class			Ss will be introduced the target vocabulary.	The list of target vocabulary and their meaning will be given to Ss before class.	No time limit	✓ WhatsApp Messenger	*Series, Popular, Author, Sell, Language, Together, Curse, Buy, Different, Adult*
During Class	**Engage**		Ss will be engaged into the topic by a video that includes the target vocabulary.	SS will watch a video named 'Harry Potter is back'. They are asked what they know about Harry Potter movies.	10 mins.	✓ YouTube App ✓ Video News ✓ Personal Earphones	*Series, Popular, Author, Sell, Language, Together, Curse, Buy, Different, Adult*
	Study		SS will learn the lexical definitions of target vocabulary.	The bilingual word lists will be shared with students.	10 mins.	✓ WhatsApp Messenger ✓ Word Cards	*Series, Popular, Author, Sell, Language, Together, Curse, Buy, Different, Adult*
			Words will be studied over.	Ss will try to memorize the target vocabulary with a flashcard app	10 mins.	✓ Cram Flashcard App	*Series, Popular, Author, Sell, Language, Together, Curse, Buy, Different, Adult*
	Activate		Ss will check their knowledge with an interactive multiple choice quiz	With an interactive multiple choice quiz game, Ss will compete with each other.	10 mins.	✓ Kahoot Application	*Series, Popular, Author, Sell, Language, Together, Curse, Buy, Different, Adult*
			The results of the game will be discussed with Ss.	The results of the quiz game will be shared with Ss and the game may be repeated in 'ghost mode'.	5 mins.	✓ Kahoot Application	*Series, Popular, Author, Sell, Language, Together, Curse, Buy, Different, Adult*
After Class			A versatile quiz will be applied to Ss.	Ss will be announced to join a versatile quiz at a pre-defined hour with an online distance quiz.	No time limit	✓ Kahoot Application	*Series, Popular, Author, Sell, Language, Together, Curse, Buy, Different, Adult*