LEARNING VOCABULARY THROUGH E-PORTFOLIOS AND ITS EFFECTS ON 9TH GRADE ANATOLIAN HIGH SCHOOL STUDENTS' STRATEGY DEVELOPMENT AND LEARNER AUTONOMY

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June 2011
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Pamukkale University
Institute of Social Sciences
Master's Thesis
Department of English Language Teaching

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June 2011

DENIZLI

YÜKSEK LİSANS TEZİ ONAY FORMU

İngiliz Dili Eğitimi Anabilim Dalı öğrencisi Kısmet ÖĞMEN tarafından Yrd. Doç. Dr. Recep Şahin ARSLAN yönetiminde hazırlanan "Learning Vocabulary Through E-portfolios and Its Effects on 9th Grade Anatolian High School Students' Srategy Development and Learner Autonomy" başlıklı tez aşağıdaki jüri üyeleri tarafından 28.06.2011 tarihinde yapılan tez savunma sınavında başarılı bulunmuş ve Yüksek Lisans Tezi olarak kabul edilmiştir.

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Doç. Dr. Bilal SÖĞÜT
Müdür

Bu tezin tasarımı, hazırlanması, yürütülmesi, araştırılmalarının yapılması ve bulgularının analizlerinde bilimsel etiğe ve akademik kurallara özenle riayet edildiğini; bu çalışmanın doğrudan birincil ürünü olmayan bulguların, verilerin ve materyallerin bilimsel etiğe uygun olarak kaynak gösterildiğini ve alıntı yapılan çalışmalara atfedildiğini beyan ederim.

İmza:

Ad-Soyad: Kısmet ÖĞMEN

AKNOWLEDGEMENTS

I would like to thank my advisor Asst. Prof. Dr. Recep Şahin ARSLAN for his invaluable help and guidance throughout this study without his support and patience it would not be possible to complete this work. I also would like to thank Assoc. Prof. Dr. Ramazan BAŞTÜRK for guiding me in using the SPSS program and carrying out the necessary statistical tests.

Next I want to express my gratitude to my friends Hale YAYLA USTACI, Fatmanur AY, Mine ÖZÇELİK and Ali ERARSLAN for their help and their suggestions in carrying out my study. I also would like to express my thanks to my former colleagues Derya EREN and Ahmet PEKER at Mustafa Kaynak Anatolian High School for their assistance and cooperation during this study.

My thanks also go to classes 9A and 9D from Mustafa Kaynak Anatolian High School in the academic year 2009-2010. I would like to send my special thanks to my dear students Özgür, Merve, Rahime, Ayşe Nur, Melike, Mert, Mert Can, Burak, Bayram, Ali, Sibel, Seda, Cemal, Hidayet, Ünzile, Tuğba, Tuğçe, Şeyma, Selman, Şamil, Sabahattin, Özge, Kemal, Eyüp, Mehmet, Cansu, Betül, Berkin, Berk, and Gizem from class 9B.

My biggest thanks go to my family: my mum, for her never seizing support; my dear husband, for his endless patience; and finally, my only daughter Dilay, from whom I had to steal most of our precious time we could have spent together.

ABSTRACT

VOCABULARY LEARNING THROUGH E-PORTFOLIOS AND ITS EFFECTS ON ANATOLIAN HIGH SCHOOL 9TH GRADE STUDENTS' STRATEGY DEVELOPMENT AND LEARNER AUTONOMY

ÖĞMEN, Kısmet
Master of Arts, English Language Teaching
Advisor: Asst. Prof. Dr. Recep Şahin ARSLAN

July 2011, 228 pages

It is undeniable that good vocabulary knowledge is the basis of language learning. However, in the era of technology we are in, traditional ways of learning vocabulary do not seem to be sufficient. It was observed that most students were in the need of developing vocabulary learning strategies and thereby becoming more autonomous learners. Considering the teenagers' interest in computers and the Internet, this study aimed to develop a more up-to-date vocabulary learning tool, promote students ability to develop vocabulary learning strategies and increase their level of autonomy. For this purpose 89 9th grade Anatolian high school students were asked to keep a vocabulary learning e-portfolio for 24 weeks.

The participants were given pre- and post application questionnaires in order to determine any significant difference between their strategy use and their level of autonomy before and after the study. Students registered to an e-learning platform received 12 vocabulary tasks for 24 weeks. In the mean time researcher logs were kept in order to keep track of the process. Finally, student interviews were held with the most active participants.

The results showed that 67 % of the students were interested in the e-portfolio project. Computer based tasks increased their interest in using the words they had learnt. They adopted several new vocabulary learning strategies. These outcomes revealed that vocabulary learning e-portfolios contributed to develop new vocabulary learning strategies and build learner autonomy in our participants.

Key words: Vocabulary, Vocabulary Learning Strategies, Learner Autonomy, E-portfolio.

ÖZET

E-PORTFOLYO YOLUYLA KELİME ÖĞRENİMİ VE ANADOLU LİSESİ 9. SINIF ÖĞRENCİLERİNİN STRATEJİ VE ÖĞRENİR ÖZERKLİĞİ GELİŞİMİNE OLAN ETKİSİ

ÖĞMEN, Kısmet
Yüksek Lisans Tezi, İngiliz Dili Eğitimi
Danışman: Yrd. Doç. Dr. Recep Şahin ARSLAN

Haziran 2011, 228 sayfa

İyi bir kelime bilgisinin, dil öğreniminin temeli olduğu inkar edilemez. Ancak, içinde bulunduğumuz teknoloji döneminde, geleneksel kelime öğrenme yöntemleri yeterli görünmemektedir. Birçok öğrencinin strateji geliştirme ve bu şekilde öğrenir özerkliğine sahip olma ihtiyacı içinde oldukları görülmüştür. Gençlerin bilgisayara ve internete olan ilgileri dikkate alındığında, bu çalışma daha güncel bir kelime öğrenme aracı geliştirmeyi, öğrencilerin kelime öğrenme stratejileri geliştirmelerine yardımcı olmayı ve öğrenir özerliği seviyelerini yükseltmeyi amaçlamıştır. Bu amaçla 89 adet 9. sınıf Anadolu lisesi öğrencisinden 24 hafta süreyle bir kelime öğrenme e-portfolyosu tutmaları istenmiştir.

Katılımcıların çalışma öncesi ve sonrası strateji kullanımı ve öğrenir özerkliği seviyelerinde anlamlı bir değişim olup olmadığını saptamak amacıyla, katılımcılara çalışma öncesi ve sonrası anket verilmiştir. Öğrenciler bir uzaktan eğitim platformuna kayıt olup 12 adet kelime öğrenme ödevi hazırlamışlardır. Bu süre içerisinde, araştırmacı, süreci izlemek amacıyla araştırma günlükleri tutmuştur. Son olarak, en aktif katılımcılarla görüşmeler yapılmıştır.

Sonuçlar, katılımcıların % 67'sinin e-portfolyo çalışmasına ilgi gösterdiklerini ortaya koymuştur. Bilgisayar kullanımına dayalı ödevler, katılımcıların ders içerisinde öğrendikleri kelimeleri kullanmaya daha fazla ilgi göstermelerini sağlamıştır. Katılımcıların yeni bazı stratejiler edindiklerini gözlenmiştir. Bu sonuçlar göstermiştir ki, uygulanan kelime öğrenme e-portfolyosu, katılımcıların yeni kelime öğrenme stratejileri geliştirmelerine ve öğrenir özerliği oluşturmalarına katkıda bulunmuştur.

Anahtar kelimeler: Kelime, Kelime Öğrenme Stratejileri, Öğrenir Özerkliği, E-portfolyo.

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LIST OF ABBREVIATIONS

CALL	Computer Assisted Language Learning
CLT	Communicative Language Teaching
EAP	English for Academic Purposes
EFL	English as a Foreign Language
E-portfolio	Electronic Portfolio
SILL	Strategy Inventory for Language Learning
SLA	Second Language Acquisition
SPSS	Statistical Package for Social Sciences
VLS	Vocabulary Learning Strategies

CHAPTER ONE
INTRODUCTION

"Without grammar very little can be conveyed, without vocabulary *nothing* can be conveyed"

D. A. WILKINS

"When students travel they don't carry grammar books; they carry dictionaries"

S. KRASHEN

As these two quotes reveal, vocabulary is an essential component of second language learning. Read (2000) defines words as the "basic blocks of a language and units of meaning" (Read, 2000: 1) and also points out that longer structures such as sentences, paragraphs and texts are formed by them. Due to this fact, vocabulary acquisition plays an important role in all four skills of second language learning and particularly in reading and writing. As a result, most studies as to vocabulary acquisition are conducted in relation to these two skills.

Starting from the 1990's a great number of research has been conducted on vocabulary acquisition and vocabulary learning strategies. Being one of these, 'keeping vocabulary notebooks' constitutes the starting point of this study. However, due to the developments in educational technology in the recent decades and the increase in computer use among adolescents, the notion 'vocabulary notebooks' has been replaced with 'vocabulary study e-portfolios'.

This study seeks for developing a more effective and up-to date methodology for vocabulary learning among 9th grade Anatolian high school students, creating awareness in vocabulary learning strategies, and promoting students' present level of learner autonomy.

1.1. BACKGROUND OF THE STUDY

Among all the fields of language learning, vocabulary has been a neglected area until the 1990s. In the 1970s and 1980s a great number of studies were conducted on syntax and morphology. Error analysis, developmental sequences, and language universals were the main concerns of research (Ellis, 1994). By the end of the 1980s and the beginning of the 1990s, a new approach; namely, the Lexical Approach brought awareness to the teaching and learning of vocabulary. Names such as Lewis (1990), Nation (2002), Nattinger and DeCarrico (1992) and Willis (1990) discussed the type of vocabulary and the prospects of vocabulary to be taught to language learners. Even Noam Chomsky, who has been regarded as 'the father of studies in syntax', adopted a "lexicon-is-prime" attitude in his linguistic theory (Richards and Rogers, 2001). Therefore, notions such as vocabulary size, word frequency, word-knowledge, receptive and productive vocabulary, and the methodology of teaching vocabulary became the centre of research (Carter & McCarthy, 1988; McCarthy, 1990; Nation, 2001; Nation &Newton, 1997; Schmitt, 2000; Schmitt and Schmitt, 1995).

Starting from 1975, other scholars such as Gillette (1987, cited in Ellis, 1994), Huang and Van Naersson (1985, cited in Ellis, 1994), Lennon (1989, cited in Ellis, 1994), Naiman (1978, cited in Cohen and Macaro, 2007), Reiss (1985, cited in Ellis, 1994), Rubin (1978), and Stevick (1989, cited in Ellis, 1994) conducted research on 'good language learners'. The aim of these studies was to find out strategies used by good language learners, thus to promote the learning of poorer learners. (Ellis, 1994)

The early studies on good language learners, inevitably, led to the generalization of learner strategies and the formulation of learner strategy taxonomies such as Oxford's "Strategy Inventory for Language Learning" (SILL), on which she made changes in 1990; and O'Malley and Chamot's (1990) "Typology of Learner Strategies". O'Malley and Chamot (1990), who based their studies on the Cognitive Theory, define learner strategies as "special thoughts and behaviors that individuals use to help them comprehend, learn or retain new information" (O'Malley and Chamot, 1990: 1). Similarly, Oxford (1990) defines them as:

> "specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective and more transferrable to new situations" (Oxford, 1990: 8)

Following the generalization of learner strategies, Second Language Acquisition (SLA) researchers started to investigate the effects of strategy training on learner proficiency. As Nunan quotes "informed selection of strategies presupposes knowledge of strategies; knowledge of strategies presupposes instruction" (Nunan, 1991 cited in Rasekh & Ranjbari, 2003, para. 16). It was believed that if learners were to be instructed on language learning strategies, this would enhance their language learning process. Studies conducted by Carrel, Pharis and Liberto (1989), O'Malley and Chamot (1990), and Oxford (1990) have shown that strategy training has positive effects on language learning (Rasekh & Ranjbary, 2003).

Studies of learner strategies, in time, were developed into studies on specific area learner strategies such as strategies for reading, strategies for writing or vocabulary learning strategies. Influenced by the lexical approach, in the early 1990s, there have been a great number of studies in the area of vocabulary learning strategies. Gu and Johnson (1996, cited in Nation, 2005), Nation (2002), Oxford (1990), Schmitt (1997), and Stoffer (1995, cited in Segler, Paine & Sorace, 2002) came up with different vocabulary learning taxonomies. McCarthy (1991) and Nation (2001) conducted their studies in an answer to the question *What is vocabulary learning?* and they categorized vocabulary items. Fowle (2001), McCarthy (1990), Nation and Newton (1997) and Schmitt and Schmitt (1995) concentrated on the correct vocabulary choice that is to be taught to language learners. August, Carlo, Dressler and Snow (2005), Cohen (2003), Ghazal (2007), Manzo and Manzo (2008), and O'Malley and Chamot (1990) conducted studies on how strategy training should be and the benefits of strategy training.

Among many vocabulary learning strategies, keeping vocabulary notebooks has been one of the most preferred strategies. Dating back to 1995, in their well known article "Vocabulary Notebooks: Theoretical Underpinnings and Practical Suggestions", Norbert and Diane Schmitt first state the eleven principles of vocabulary acquisition which should be incorporated in vocabulary notebooks. Next, Schmitt and Schmitt (1995) present us with the format of an ideal vocabulary notebook and finally list some

activities that can be conducted using vocabulary notebooks. Fowle (2001) gives an account of his vocabulary notebook study with a group of Thai students and their teachers. He states that vocabulary notebooks utilize a majority of cognitive strategies, provide opportunities for developing self management strategies, create awareness in metacognitive knowledge, increase self-esteem, and make individuals more independent learners. In another study, McCrostie (2007) investigated his Japanese students' word choice in creating their vocabulary notebooks. He describes the roles of vocabulary notebooks as acquiring vocabulary and fostering learner autonomy, which is another important constituent of this study.

All the vocabulary notebooks in the above mentioned studies are traditional paper notebooks which have, preferably, loose leaflets that can be re-organized. Since our age is becoming a digital age and since most adolescents prefer typing to writing, and downloading and videotaping to drawing, it is thought that traditional vocabulary notebooks would not be appealing and motivating for most high school students. After a search for a way to digitize vocabulary notebooks, the e-portfolio, one of the recent assessment and instruction tools, has become an ideal tool.

A closely related issue with learner strategies is learner autonomy. Starting with Henry Holec's well-known work *Autonomy and Foreign Language Learning* (1979, cited in Cotterall, 2008,) scholars have started to discuss what learner autonomy is and its relation to language learning strategies. Names such as Dam (1995) and Little (1991) have defined learner autonomy and outlined dimensions of it. Benson (2008) and Grabe and Stoller (1997) are concerned with the pedagogical implications that will promote learner autonomy. According to some other researchers such as Cohen (1998) and Oxford (1990), autonomous learning is promoted if learners are to be given adequate strategy training. The studies of Dickinson (1987), Wenden and Rubin (1987), and Oxford (1990, 2002) emphasize the relationship between strategy development and learner autonomy.

E-portfolios, which date back to the 1980s but became more important in 1990s, are defined as "a digitized collection of artifacts including demonstrations, resources and accomplishments that represent an individual, group or institution" (Lorenzo &

Ittelson, 2005, para.2). They can consist of text-based, graphic or multi-media elements archived on a Web site or other electronic media such as CDs or DVDs. E-portfolios can be designed by using some software products such as web blogs, static web services, interactive web services or simply on computers which have office applications downloaded on them (Barret& Garrett, 2009).

In the area of language learning, both traditional portfolios and e-portfolios have been used in developing reading and writing skills. However, no study has been reported on using e-portfolios in vocabulary strategy teaching. This study aims to create a modern version of vocabulary notebooks and thereby to promote 9th grade Anatolian high school students' vocabulary acquisition, with a specific purpose of creating awareness in vocabulary learning strategies and helping them develop autonomy in learning vocabulary.

1.2. STATEMENT OF THE PROBLEM

Foreign language education has been a problem for many years in Turkey (Çelebi, 2006). One of the biggest handicaps is that Turkey is an English as a Foreign Language (EFL) country, so students use the foreign language only in the English class. Since they do not use the language outside the class and no authentic interaction takes place with speakers of English, Turkish learners of English do not have the chance to improve and to practice this language knowledge outside the classroom environment.

Another problem is the lack of a foreign language policy in the Turkish educational system. Almost every year some changes take place in weekly hours and application as to foreign language education while the curriculum still remains overloaded with grammar subjects (Çelebi, 2006). These changes do not give the teachers the chance to adopt a clear methodology (Çelebi, 2006). In addition to these, limited needs analysis is conducted on language learning and there is not sufficient dialogue between universities and schools (Soydan, 2009). Furthermore, due to the educational system, especially in high schools, students are overwhelmed with the university entrance exam so that they do not see foreign language as a must (Demir, 2002; Soydan, 2009).

A third major problem is that language teaching in Turkish schools is still based on grammar instruction (Başeci & Yaşar, 2007). Although the present curriculum prepared by the Ministry of Education and the text books used at schools suggests teachers to give importance to skill training, no or little emphasize is given to vocabulary and skill training by teachers (Bahçeci & Yaşar, 2007; Soydan, 2009), entailing testing based on grammar. Unfortunately, such practices result in negligence of both productive and receptive skills.

In addition to these problems, teachers are not qualified enough. There are English teachers from different backgrounds such as graduates of other departments of English medium universities such as Middle East Technical University or Boğaziçi University, graduates of the remote learning programs of the 1960s which were conducted via letters, summer school graduates, or some teachers who received teaching certificates upon finishing courses opened by the Ministry of Education (Çelebi, 2006). It is also observed that not all our teachers are willing to learn, apply and make use of contemporary approaches (Çelebi, 2006; Soydan, 2009).

In our classrooms, as a matter of fact, the teacher is still the source of knowledge and authority. Due to the fact that our teachers prefer to teach according to the traditional methodologies, it is observed that students in our schools appear to be dependent on the teacher and feel content with only doing the given homework rather than being able to manage to learn how to learn, decide on the material and the subject matter that is to be learnt, and monitor and evaluate their own learning (Yumuk, 2010).

Apart from the inconveniences afore mentioned, students have serious problems in vocabulary learning. As Waring (2002) states there is low recycling of vocabulary and most of the time teachers assume that vocabulary has already been recycled sufficiently in the text books. In most cases teachers leave vocabulary learning to students and do not teach vocabulary learning strategies or how to use dictionaries. Learners are not encouraged to keep vocabulary notebooks (Waring, 2002). Collocations and lexical phrases are ignored, in some cases too many words are taught at the same time, rare words are favored rather than more common ones, for many teachers giving the definition is enough and finally, vocabulary learning exercises test

rather than teach (Waring, 2002). Moreover, due to lack of strategy knowledge and necessary guidance, many students just note down the new words as they occur in the class activity (Hedge, 2000) and then they try to memorize them, an act which either ends up with an inefficient short-term retention or a list of memorized words which cannot be used in productive activities.

It is seen that our traditional vocabulary teaching methods such as providing example sentences, drawing, introducing them with collocations, explanations do not prove to be sufficient. We are in an era where young people are challenged by many things such as computers and the Internet. Depending on this fact, it seems possible to make the computer and the Internet a valuable vocabulary teaching and learning tool. The main purpose of this study is to conduct a research on how to make computers and the internet, which have an important place in the adolescents' lives, an effective tool for learning vocabulary.

1.3. AIM OF THE STUDY

The main purpose of this study is to develop a more up-to date vocabulary learning tool by converting 'vocabulary notebooks' into 'vocabulary study e-portfolios' and thus to create awareness in vocabulary learning strategies and to enhance our participants' present vocabulary learning strategies. Another aim of this study is to help our students' to become more autonomous learners, who can monitor, control and evaluate their own learning.

The study will address the following research questions and sub-questions:

1) To what extent are students aware of vocabulary learning strategies?

1a) What are the present strategies that students apply in learning vocabulary?

2) How will a vocabulary study e-portfolio application contribute to strategy development in terms of vocabulary learning?

2a) To what extent will students be able to change their present vocabulary learning strategies through this particular study?

3) To what extent will a vocabulary e-portfolio study contribute to our students in terms of becoming autonomous learners?

3a) To what extent are students able to monitor their own learning?

3b) At the end of the study, will there be any progress in the students' level of autonomy? If yes, in what way will this progress be?

1.4. SCOPE OF THE STUDY

This study covers vocabulary learning strategies and learner autonomy behaviors observed in 9th grade Anatolian high school students and focuses on the changes that are likely to take place following a vocabulary study e-portfolio study in terms of vocabulary learning strategy use and learner autonomy. The study is of one-group pre-test and post-test design starting from September 2009 until May 2010 and covers Pre- and Post-application Questionnaires, a 24-week vocabulary study e-portfolio application, and Semi-structured Interviews.

1.5. SIGNIFICANCE OF THE STUDY

Starting from the 1990s, both in the global and local level, there has been a great number of research in the field of vocabulary strategy training and its outcomes in terms of notions such as word-retention, vocabulary size, or proficiency levels of learners. There have been also studies on vocabulary learning strategies such as inferring from context, semantic mapping, word-structure knowledge or vocabulary notebooks. Studies on learner autonomy are not specified in vocabulary teaching only but in language teaching in general. Finally, e-portfolios have also been the concern of many researchers; especially in the fields of developing reading and writing skills or as an alternative assessment tool (Barret, 2006).

This study on e-portfolio application is unique in the sense that it investigates the efficacy of e-portfolio applications on the improvement of vocabulary proficiency, the use of vocabulary learning strategies, and the development of learner autonomy. Although, using vocabulary notebooks in vocabulary learning constitutes the starting point of this study, by transforming traditional vocabulary notebooks into vocabulary study e-portfolios, it was aimed to make use of this valuable educational tool in another area than it has been used so far.

Vocabulary study e-portfolios may prove to be effective learning materials especially for adolescents; in the sense that, most of the learners in this age group find traditional teaching materials out-of-fashion and are not motivated by them since most teenagers are already proficient computer users and close followers of recent technology learning vocabulary and vocabulary learning strategies via e-portfolios may turn out to be a beneficial method for both students and teachers.

1.6. OUTLINE OF THE STUDY

Chapter One, Introduction**,** first presents the background of the study, and then states the problem. Next, it portrays the aim of the study, lists the research questions, and states the significance of this study. Finally, it ends with the identification the scope of the study.

Chapter Two, Review of the Literature, reviews the relevant literature on vocabulary learning and learner strategies, in particular, vocabulary learning strategies, computer assisted language learning, e-portfolio applications, and finally, learner autonomy.

Chapter Three, Methodology, provides the design of the study and provides information about the setting, participants, data collection instruments and data collection procedures of this study.

Chapter Four, Results and Discussion, focuses on the data analysis procedure and then discusses the results in line with the findings obtained from the data analyzed.

Chapter Five, Conclusion, presents an overview of the study. It also provides implications for teachers and suggests some ideas for further study.

CHAPTER TWO
REVIEW OF THE LITERATURE

2.1. INTRODUCTION

This chapter reviews the related literature as to vocabulary learning, vocabulary learning strategies, computer assisted language learning and learner autonomy. First, issues concerning teaching and learning vocabulary, namely, the nature of word knowledge, the place of vocabulary in different methodologies, and the implications, ideas and studies on vocabulary teaching and learning will be presented. Second, learner strategies, in particular, vocabulary learning strategies will be examined. Third, computer assisted language learning, computer assisted vocabulary learning, and the use of e-portfolios will be reviewed. Finally, learner autonomy, its relation to learner strategies and computer assisted language learning, and studies on learner autonomy in Turkey will be analyzed.

2.2. TEACHING AND LEARNING VOCABULARY

As many scholars in the field of language education have stated vocabulary was an undervalued area of language education for many years (Channel, 1988; Hedge, 2000; Laufer, 1997a; Meara, 1996; Meara, 2005; Nunan, 1991; Richards & Renandya, 2002; Schmitt, 1997; Sökmen, 1997). It was not until 1976 when Richards (1976) first alerted linguists that vocabulary was neglected in language instruction. In the article 'L2 vocabulary acquisition: A synthesis of the research', Coady (1997b) gives place to the opinions of different linguists to explain the reasons for the lack of interest in vocabulary teaching. According to Richards (1976) the reason of the neglect of vocabulary instruction is the effect of structuralism and the Chomskian school of linguistics on language education and their focus on grammar and sound systems. Levenston (1979; cited in Coady, 1997b), on the other hand, pointed out that applied linguists had directed their interest towards syntactic developments rather than vocabulary instruction and thus undervalued vocabulary instruction. Sinclair and Renouf (1988) observed that language teaching practitioners found it difficult to teach

both grammar and vocabulary at the same time and for that reason most practitioners focused on grammar and syntax, and paid less attention to vocabulary. Zimmerman (1997) points out that, throughout the long history of language teaching, all approaches paid more or less some attention to vocabulary but emphasized the other aspects of language teaching such as; grammar, structural patterns, the functional and notional aspect of the language, or discourse.

However, after the long period of neglect, especially after the 1980's, the teaching of vocabulary gained importance (Channel, 1988; Meara, 1996; 2005; Sökmen, 1997). Carter and McCarthy (1988: 15) attribute this growing interest to facts such as "the theoretical advances in the study of the lexicon", " psycholinguistic investigations into the mental lexicon", "the communicative trend in language teaching" and "the developments in computers". Issues such as the definition of vocabulary, lexicon, the development of mental lexicon, corpus and computer- based language corpora became the centre of interest by the 1980's and the beginning of 1990's (Richards and Rogers, 2001). Studies and publications by Lewis (1993), Nattinger and DeCarico (1992), and Willis (1990) opened a new horizon to the teaching of vocabulary and lexical units. For the very first time, vocabulary was the centre of language teaching and the notion of vocabulary broadened from single words into more complex structures called "lexical items", which form an important part of a language.

Due to the important place of vocabulary in language instruction, in this section, an overview of what constitutes our word knowledge will be made. Next, the place of vocabulary instruction in different methodologies and approaches will be examined. Finally, the relevant literature on different implications, ideas and suggestions on vocabulary teaching proposed and discussed by scholars in the field will be presented.

2.2.1. What is Vocabulary Knowledge?

In the very early years of language instruction vocabulary was accepted as isolated elements that constitute a whole body of a text. As years passed and the approach to language changed over those years, the notion of vocabulary and word-knowledge has also changed considerably.

As mentioned in Section 2.2, Richards (1976), one of the first scholars who drew attention to the importance of vocabulary in language instruction, specifies word knowledge as (1) knowing the degree of probability of encountering it and its associates (frequency and collocations), (2) limitations of use according to function and situation (word-choice, appropriate form and register), (3) its syntactic behavior, (4) its underlying forms and derivations (word parts and grammatical features), (5) its place in a network of associations with other words, (6) its semantic value, and (7) its different meanings.

Richards's (1976) list summarizes the general approaches to the notion of what constitutes our word knowledge. Linguists working in the area of vocabulary teaching have grouped the components of word knowledge under categories similar to Richards' (1976) specifications. The main constituents of lexical knowledge are seen as multi-word items, in particular, collocations; word-choice in terms of appropriate form and register; the syntactic and semantic aspect of words; the grammatical aspect of words; and word parts.

According to McCarthy (2003) word knowledge is a broad area. It starts with knowing the morphemes of a word; namely, the knowledge of word-roots, prefixes and suffixes, and forming compound words. Similarly, Zimmerman (2009: 77) gives place to the knowledge of word parts in our "word-consciousness", as she calls the notion of word knowledge, and argues that, the knowledge of frequently used word parts which form "word patterns" should be included to vocabulary teaching. However, Zimmerman (2009) also draws attention to the challenges caused by the knowledge of word parts. Zimmerman (2009) claims that in some situations they might be misleading, such as: "*We regret that you will be *misconvenienced."* "*He *unlikes* to be late for class" (p.79).

Along with word parts, scholars such as Lewis (1997) and McCarthy (2003) give considerable importance to multi-word items as part of our lexical knowledge. McCarthy (2003) points out that compound words, structures and derived words are also part of the lexicon. Apart from these single-unit words, there is a huge group of multi-word units which consist of lexical items such as idioms, binomials, trinomials,

gambits, links, responders, closers, collocations and metaphors. In his article 'Pedagogical Implications of the Lexical Approach' Lewis (1997) identifies lexical items as four types which are "words and polywords", "collocations", "institutionalized utterances", and "sentence frames or heads" (Lewis, 1997: 255). Lewis (1997: 256) states that words and polywords, which he describes as "phrases that have a degree of idiomaticity", e.g. *by the way, on the other hand,* have been recognized in language teaching. However, this is not always the case for "collocations" and "institutionalized utterances"; e.g. *I'll get it; I'll give you a call*, and "sentence frames"; e.g. sequencers such as *Secondly, Finally* or "conjunctions" such as *nevertheless, however, as a result* (Lewis, 1997: 257).

Ellis (1997), Hedge (2000), Lewis (1997), McCarthy (2003), Nation (2005), and Zimmerman (2009) argue that beside single word items, collocations, too, need to be part of vocabulary instruction. Collocations, which are a type of multi- word items, are seen as one of the most valued language components that constitute our word knowledge. Lewis (1997. 256) describes collocations as "pairs or groups of words that co-occur with very high frequency" and he adds that these lexical items may occur as larger groups of words than pairs and may be composed of different grammatical categories. Zimmerman (2009: 37) defines collocations, "as the ways words are combined with each other" and points out that they are an important part of the semantic network. Zimmerman (2009: 38) categorizes collocations in two layers, "fixed phrases" and "preposition use". She states that collocations may function as single words, phrase or sentences and lists them as compound words, phrasal verbs, lexical phrase and idioms. Ellis (1997) emphasizes the place of collocations and idioms in a language and argues that, especially when the speaking skill is concerned, "Speaking natively means speaking idiomatically", which means the ability of using frequent and familiar collocations. According to Ellis (1997) language learning involves learning word-forms and sequences of words such as collocations, phrases and idioms. Lewis (1997) states that, collocations have usually been ignored and that teachers and students usually note down the new words in the particular collocation but not the whole sequence. Lewis (1997) also argues that collocations are part of our word knowledge and that "the

recognition, generation and effective recording of collocations are essential elements" (Lewis, 1997: 257) of vocabulary teaching.

According to McCarthy (2003) word knowledge does not only consist of lexical items but also has a semantic and syntactic aspect which enables concepts such as synonymy, antonymy, hyponymy, homonymy and polysemy to become part of our word-knowledge. Laufer (1997a) and Ellis (1997), too, list the "lexical relations of a word to other words" as one of the aspects of word knowledge. Laufer (1997a: 114) also gives place to "the syntactic pattern of a word in a phrase or sentence" and Ellis (1997) states that semantic properties of a word are part of knowing a word. Hedge (2000), on the other hand, explains the notion of word knowledge under two topics which are "denotative and connotative meaning" and "meaning relations among words" and separates these meaning relations under two headings which are "syntagmatic relations", such as collocations, and "pragmatic relations", such as synonymy, antonymy and hyponymy (Hedge, 2000: 112-116).

Grammatical features of a word constitute another aspect of our word knowledge. Nation (2005) names the notion of vocabulary knowledge as "the learning burden of a word" and categorizes this burden into three categories which are "meaning, form and use" (Nation, 2005: 49). In terms of "use", Nation (2005: 49) lists notions such as "grammatical functions", "collocations" and "constraints on use" such as register or frequency. According to Zimmerman (2009: 56), on the other hand, the grammatical feature of a word functions in four layers. When we learn a new word noticing its part of speech is a good starting point as this gives the learner information on the role of that particular word in context. Being active or passive, countable or uncountable and verb compliments are the other three layers of grammatical features.

Word choice, appropriate use of words depending on different situations and register is another element of word knowledge (Ellis, 1997; Hedge, 2000; Laufer, 1997a; Nation, 2005; Zimmerman, 2009). According to Zimmerman (2009: 15) knowing the meaning of a word requires "more than knowing the definition". It includes understanding differences between words and the ability of appropriate word choice depending on different situations and the audience addressed to. She argues that

learning the meaning of a word takes place in two layers which are the positive/ negative connotation and the strength of a word. Word choice in these layers determine whether the speaker is vague or specific, formal or informal, direct or indirect, candid or discreet (Zimmerman, 2009: 16). In addition to this, Zimmerman (2009: 97) argues that register and appropriate form operate under three layers which she lists as "formal or informal forms", "polite or impolite forms" and "direct or euphemistic" forms. In addition, Zimmerman (2009) remarks that spoken or written registers, academic register, colloquial register, slang, and domain specific language and jargon, are part of the knowledge of register and appropriate form.

Taking different aspects of word knowledge into consideration, Ellis (1997) describes the learning of a word in several steps. The first step is the recognition of a word. Following this step, comes the categorization of it as a novel sound pattern and orthographic pattern. As soon as the word is retained as a new sound and written pattern, its syntactic properties; i.e. its relations with other words are to be recognized. In addition to these, the recognition of the semantic and referential properties of a word is also part of word-knowledge. All these steps will lead the learner to retain a word as a concept and enable him to "map his mental lexicon" (Ellis, 1997: 123).

Ooi and Kim-Seoh (1996) share similar views with Ellis (1997) and claim that vocabulary knowledge is not only meaning. It also includes the knowledge of what makes a word different from a word in similar meaning, what other meanings does a word has, what word derives from it, what links it has to other words, how it behaves syntactically, and what kind of limitations it entails in use. They also propose that nuances and differences in use should be given when lexical sets are being taught.

Laufer (1997a: 142), on the other hand, remarks knowing a word would imply familiarity with "all its aspects" and states that in most cases, however, knowing remains partial because learners usually master some properties of a word. This condition results in cases like receptive knowledge of a word; i.e. the learner knows the word in some sense but is incapable of using it productively such as in the situations of the tip of the tongue phenomenon or retrieval of a word with effort.

As we have seen in this section, word knowledge is a multi-faceted phenomenon. It is more than knowing the meaning of a word. According to the scholars of the field, word knowledge requires knowledge of word structures, the grammatical, syntactic, semantic aspects of words, the correct choice of words according to different situations and addressees, and the knowledge of multi-word items. Having identified the constituents of word knowledge, the following section will focus on the place of vocabulary in different methodologies and approaches throughout the history of language instruction.

2.2.2. Place of Vocabulary in Different Methodologies

Vocabulary is a basic component of a language. Therefore, as Zimmerman (1997) points out, attention is given to vocabulary in almost all methodologies and approaches; however, in each era the amount of attention and the point of view of vocabulary teaching changes. In some periods vocabulary was equally important as was grammar while in some periods it was not seen as a language area at all. This section aims to examine different methodologies and approaches in terms of the place of vocabulary in language instruction.

The oldest language teaching method, the Grammar-Translation Method, was accepted as the ideal language teaching methodology in the second half of the 19th century and the beginning of the 20th century. As its name suggests it took the target language grammar as the centre of language instruction. The reading of classical pieces of literature, developing a rhetoric and writing skills, and the ability to translate written art from the target language into the native language were the main concerns of the followers of this methodology. Since translation was a crucial part of language knowledge, vocabulary was almost as important as grammar. However, the teaching of vocabulary depended mostly on route memorization. Bilingual word lists, translation exercises and dictionary studies were the primary techniques of vocabulary teaching (Larsen-Freeman, 1986; Richards & Rogers, 2001; Zimmerman, 1997).

Since in Grammar Translation Method realistic oral language was neglected (Zimmerman, 1997) and reading and writing were the primary skills to be developed

(Larsen-Freeman, 1986), selection of vocabulary depended on the material to be read (Larsen-Freeman, 1986; Richards & Rogers, 2001). Cognates, synonyms, antonyms, word roots, etymology and definitions constituted the main teaching material in terms of vocabulary (Larsen-Freeman, 1986; Zimmerman, 1997).

Starting from 1880's some linguists such as Henry Sweet, Wilhelm Vietor and Paul Passy felt the need for applying change in language teaching methodology (Richards & Rogers, 2001). Speech, the spoken language, sound systems and phonology gained importance. Linguists of the late 19th century advocated that the findings of phonology should be a part of language teaching and teacher training. Instead of presenting them in isolation, words should be presented in sentences which are to be placed in meaningful contexts. Vocabulary items should not be disconnected elements anymore and translation should be avoided (Richards & Rogers, 2001). Contrary to Grammar -Translation Method, vocabulary was selected according to simplicity and usefulness of words (Zimmerman, 1997).

Following this reformation movement in language training, especially in the late 1880's a new perspective was brought to language which later on was used at the famous Berlitz schools (Richards & Rogers, 2001; Zimmerman, 1997). This new method; namely, the Direct Method not only required native or native-like speaking teachers, but also very talented teachers in acting because vocabulary teaching consisted of miming, demonstrations and acting (Larsen-Freeman, 1986; Richards & Rogers, 2001; Zimmerman, 1997).

Vocabulary to be taught was simple and familiar vocabulary used in everyday language (Richards & Rogers, 2001; Zimmerman, 1997). Pictures, labels, charts and real objects became teaching materials. Concrete vocabulary was taught through these aids and abstract vocabulary was taught through associating ideas (Zimmerman, 1997). Word lists were rejected and learning from context and providing opportunities for interaction were promoted. Vocabulary was even more important than grammar (Richards & Rogers, 2001; Zimmerman, 1997).

However, some scholars were not content with the Direct Method. A new approach to language teaching arouse as the Reading Method in the USA and as Situational Language Teaching in Britain, both of which aimed to develop reading skills in order to facilitate language learning. If reading was to be improved, development of vocabulary knowledge was a requirement. Depending on their studies linguists Palmer (1940; cited in Richards & Rogers, 2001) and West (1953; cited in Richards & Rogers, 2001) argued that there were basically 2000 words which occurred frequently in reading texts and if this core vocabulary was to be mastered it would contribute to the improvement of reading skills (Richards & Rogers, 2001).

Together with this approach, notions such as vocabulary control and vocabulary choice came into question which led Michael West to a search for producing a word-frequency list. As a result of his efforts, in 1953 he published his well known book *A General Service List of English Words*, which still is the most frequently used word list despite the much extended and updated vocabulary lists constituted by the help of computer technology (Zimmerman, 1997).

The linguists Palmer (1940, cited in Richards & Rogers, 2001) and Hornby's (1950; cited in Richards & Rogers, 2001) efforts in selecting the appropriate vocabulary to be taught, and organizing and sequencing the presentation of the selected vocabulary items resulted in a growing interest in vocabulary teaching. For the first time vocabulary became one of the most important aspects of language teaching. A rational basis for vocabulary selection was needed. This need contributed to the establishment of principles of syllabus design (Richards & Rogers, 2001; Zimmerman, 1997).

The importance of vocabulary in language teaching was subject to a downfall by the rise of the Audio-lingual Method, which aimed to teach the language through drills and viewed language learning as a habit formation. Structures were the main concern of the syllabus and there was little place for vocabulary. Necessary vocabulary was introduced through drills. Simplicity and familiarity were the criteria for vocabulary choice. Basic vocabulary items were selected in advance. Lexical items were graded and presented in situations, merely in dialogues, so that they could be contextualized (Larsen-Freeman, 1986; Richards & Rogers, 2001). Vocabulary, except the ones that

were needed immediately, could be learnt later. In fact, vocabulary would be learnt after the mastery of structural patterns, which were more essential (Larsen-Freeman, 1986; Nunan, 1991; Zimmerman, 1997). Basic vocabulary to practice the structures was, in fact, sufficient (Carter & McCarthy, 1988). Some followers of this method thought that vocabulary was the easiest component of the language and did not require attention at all. Some others, on the other hand, even argued that learning too much vocabulary in early language learning gave students a false sense of security and a false impression that language consisted of an accumulation of words (Carter & McCarthy, 1988). Vocabulary taken from the "immediate environment" should be taught so that students would not lose their concentration on target structures (Carter & McCarthy, 1988; Zimmerman, 1997).

The Audio-lingual method was strongly opposed by cognitive psychologists and transformational-generative linguists. With the growing interest in the cognitive-code and humanistic approaches in teaching, the Audio-lingual Method was subject to a decline. Different educators, scholar, linguists and even psychologists became indulged in a search for an effective way of language teaching which resulted in an era of different methods and approaches (Richards & Rogers, 2001). The years starting from 1970 up to the end of 1980's became an era of alternative methods. Asher's Total Physical Response, Gattengno's Silent Way, Lozanov's Suggestopedia and Curran's Community Language Learning received some interest at the beginning and brought new concepts to language education; however, they could not become part of the mainstream education at all (Richards & Rogers, 2001). What they had in common was their topic-based frame, their concern for the humanistic aspect of teaching and natural order of learning. Grammar and vocabulary were equally emphasized (Larsen-Freeman, 1986; Richards & Rogers, 2001) except for Suggestopedia, which gave more importance to vocabulary and evaluated success in language learning according to the size of words acquired (Larsen-Freeman, 1986)

The most revolutionary attempt to elevate the place of vocabulary in language teaching was most probably carried out by the followers of the Lexical Approach. These linguists broadened the concept of vocabulary from single words into larger chunks of

language such as lexical items, lexical phrases and prefabricated units (Zimmerman, 1997). The followers of Lexical Approach opposed the Chomskian view in the point that only a minority of spoken language is entirely newly formed as most of them are "memorized patterns of multi-word chunks". Lexical units such as collocations, binomials, trinomials, idioms, similes, connectives and conversational gambits play a central role in learning a language and communicating in it (Richards & Rogers, 2001). According to the followers of the Lexical Approach, in the learning of collocations is essential. Exercises that focus on collocations should be incorporated in the teaching of the language. In addition, teachers should develop activities that help learners to discover collocations themselves (Woolard, 2000).

In the Lexical Approach vocabulary is learnt through discourse analysis. For this reason, Nattinger and DeCarrico (1992) examined extensive samples of language in order to demonstrate the role of multi-word chunks in language. They analyzed various lexical phrases and this way asserted that pragmatic competence is the ability to access and adopt prefabricated chunks of language.

Another linguist, Lewis (1993) is known for his studies in the fields of corpus lexicography. Depending on his studies, Lewis (1993) argues that lexical items are central to language use and therefore should be central to language teaching as well. According to Lewis (1993: 89) "language consists of grammaticalized lexis, not lexicalized grammar". Furthermore, Willis (1990) objects to the long lasting grammar-vocabulary dichotomy and instead demonstrates that language consists of multiword chunks.

The work of Lewis (1993), Nattinger and DeCarrico (1992) and Willis (1990) paved a route for other scholars to a search for accurate language description. These scholars also shifted the view of vocabulary from its traditional single word form into the use of patterns and collocations that are to be specified according to learner needs and claimed that language production is not an issue of syntactic process but a retrieval of larger phrasal units from memory (Zimmerman, 1997). Despite all the innovations Lewis (1993), Nattinger and DeCarrico (1992), and Willis (1990) brought to language teaching, the Lexical Approach failed to become a complete teaching methodology

because it only emphasized one component of the language (Richards & Rogers, 2001). Moreover, Lewis (1993) did not indicate what to learn and teach first and the classification of multi-word units referred to a very broad range of word groups. As a consequence, it was difficult assign them into categories and design a teaching methodology accordingly (Shin & Nation, 2008).

The Communicative Approach, which also started to thrive in the early years of the 1970's, was hoped to bring revolutionary ideas to language teaching. Accuracy and the correct use of language were important points; however, vocabulary was not the centre of focus; for the focus was on discourse. This approach views language as a system rather than separate components. Vocabulary development would take place trough contextualized exposure and usage of the language (Zimmerman, 1997). Rather than explaining the language through grammar and vocabulary, systems of meaning that lay behind the communicative language were emphasized (Richards & Rogers, 2001). Vocabulary and grammar to be taught were specified according to the need of the functions and notions to be developed. According to the followers of this approach, developing an ability of managing purposeful true communication is the main goal of language learning and vocabulary is learnt through this purposeful communication (Larsen-Freeman, 1986). The communicative approach has been the starting point for a number of contemporary approaches such as the Natural Approach, Content–based Language Teaching, Cooperative Language Learning, and Task-based Language Learning.

The 1980's were, in fact, an era of other approaches such as Whole Language, Multiple Intelligences, Nero-linguistic Programming and Cooperative Language Learning which originally were designed for other educational fields but extended their area to second language teaching as well (Richards & Rogers, 2001). Towards the 1990's the place of vocabulary in language instruction gained importance. Especially Krashen and Terrel's (1983) Natural Approach, which took the ability of building meaningful communication as its central point, was a kind of starting point for the emphasis on vocabulary in language instruction. According to Krashen and Terrel (1983: 332) "a language is essentially its lexicon" and grammar is a means that brings

words together “to produce message”. Vocabulary would be more essential in the early years of language learning than would grammar. In fact, if the individual had learnt enough vocabulary, he could even ‘bypass’ grammar (Nunan, 1991). Visual aids; in fact, whatever helped comprehension was important; in that, they provided exposure to wide range of vocabulary (Richards & Rogers, 2001).

Cooperative Language Learning was developed after the 1960’s and 70’s in the United States. It emerged as an alternative to traditional education because educators thought that traditional schools were “teacher fronted” and “fostered competition rather than cooperation” (Richards & Rogers, 2001: 192), which caused minority students to fall behind majority students. This type of learning has been seen as an extension of Communicative Language Teaching (CLT from now on), as to communicative interaction is promoted as it is in CLT. However, different from CLT, Cooperative Language Learning does not have a particular syllabus; thus, any language component or any other content area may be the subject to be studied, provided that they are studied together in a group cooperatively.

Content-based Language Teaching, on the other hand, emerged after the mid 1970’s in Britain. Initially it was not a language teaching methodology and included different subject areas. It was primarily used in immersion education where the regular school curriculum was taught in the foreign language. Language is not the subject of instruction but the vehicle. In Australia, it was used in Immigrant On-Arrival Programs, which aimed to teach newly immigrants survival language in different situations they may come across. It is also the methodology used in Language for Special Purpose programs where the learners not only need to master the foreign language but also to acquire the content of a specific occupational area.

The main principle of Content-based Language Teaching is “People learn a second language more successfully when they use the language as a means of acquiring information, rather than as an end itself” (Richards & Rogers, 2001: 209). Based on this principle language instruction is not the main aim and language areas such as grammar and vocabulary are components of other skills rather than separate language dimensions.

A more recent approach that has its bases from CLT is Task-based Learning. The main aim of Task-based Learning is to engage learners in a task work and to provide them with a context for "the acquisition of learning processes" (Richards & Rogers, 2001: 223). This approach depends primarily on a theory of learning rather than a theory of language. It emphasizes the role of meaning and the outcome of a given task. However, in terms of language areas, vocabulary has an important place. As in the Lexical approach, vocabulary is considered to be composed of lexical phrases, sentence stems, prefabricated routines, and collocations rather than single word units. Since the main aim is to perform a meaningful task through negotiation, vocabulary knowledge and fluency in vocabulary usage; i.e. "the capacity to produce language in real without undue pausing for hesitation" (Skehan, 1998: 21-22) is necessary to fulfill the aim of the lesson.

As it is seen, vocabulary and grammar have been equally important in the early years of the history of language teaching. By time changes were observed in the choice of vocabulary and methodology of teaching it. At times vocabulary became an important aspect of language as it was in the period of Direct Method, the 1940-1950's, the Lexical Approach, the Natural Approach, and Task- based Learning. There were also times where vocabulary was not the centre of language instruction but was treated as a vehicle to develop other skills or other content areas. Situational Language Teaching, the Communicative Approach, Cooperative Language Learning, and Content-based Language Teaching are such methods and approaches. Unfortunately, as it was in the heydays of Audio-Lingual Method, there was also a period when vocabulary was seriously neglected and was not seen as a language area at all.

Not only the place but also the methodology of vocabulary teaching has been different throughout the history of language teaching. There have been a number of different implications, ideas, and suggestions on vocabulary teaching proposed by the scholars of this field. The next section will examine the literature of implications, ideas and suggestions on vocabulary teaching.

2.2.3. Implications and Ideas on Vocabulary Teaching

In her article 'What's in a word that makes it hard or easy: Some intralexical factors that affect the learning of words' Laufer (1997a) generalizes the main points to be taken under consideration in vocabulary teaching and suggests (1) teaching similar words at the same time should be avoided (2) difficult items should be practiced more, (3) students should be taught not to rely on word-structure and not to draw meaning on individual words. They should learn to check meaning in a wider context, (4) mnemonic strategies may not be effective enough, and (5) some factors affect word learnability. These are "pronuncability, orthography, complexity, derivational complexity, similarity, part of speech, abstractness, specificity, and register restrictions, idiomaticity, and multiple meanings" (Laufer, 1997a: 141).

On the other hand, Hedge (2000: 126-137) approaches the notion of vocabulary teaching from a different perspective and proposes the following suggestions for effective vocabulary teaching: (1) developing variety of techniques for the learning of meaning, (2) encouraging the development of effective strategies, (3) exposing learners to vocabulary through reading and training lexical inferencing, (4) teaching the effective use of dictionaries, (5) evaluating the vocabulary component of the course books, (6) teaching vocabulary explicitly through a range of activity types, and (7) developing resource for vocabulary teaching.

Meara (2005), too, lists various vocabulary teaching methodologies. He starts with traditional vocabulary lists, which he finds very useful, and advises that they prove to be more useful if they consisted of semantically unrelated words. Vocabulary notebooks take the second place in Meara's (2005) list. Next, he gives place to computers. Meara (2005) states that computer databases, special computer programs such as the "Wordsmith Tool" (Meara, 2005: 77), and concordances, which provide learners a rich variety of context to the learners, receive interest in the area of vocabulary teaching.

Unlike Laufer (1997a), Hedge (2000) and Meara (2005); Coady (1997b) places approaches to L2 vocabulary instruction in a continuum starting from the "Context

Alone" approach. The followers of this approach believe that there is no need for direct vocabulary instruction. Instead, learners will learn or acquire vocabulary through extensive reading and meaningful use of language in the learning environment.

The second approach is the "Strategy Instruction" approach. Context is the major source of vocabulary learning but there is a need for strategy training as well (Ahmed, 1989; Cohen, 1990; Oxford & Crookall, 1990; Oxford & Scarcella, 1994; Shouten & Van Parreren, 1992). Studies of these scholars have shown that there has been a remarkable difference in terms of proficiency between groups that have been taught certain strategies and groups who have not received any strategy training.

The third approach is the "Development and Explicit Instruction" approach. In the early stages of language learning direct vocabulary teaching is essential. Different techniques, even memorization of frequent vocabulary items are suggested. Especially in non-English speaking environments this is necessary. Paribakht and Wesche (1997) believe that contextualized reading is effective on vocabulary learning but contextualized reading and direct instruction prove to be more effective. Another study conducted by Zimmerman (1994; cited in Coady, 1997b) also proves that systematic instruction on vocabulary is better than free or assigned reading.

The last approach suggests that good vocabulary learning can be accomplished through "Classroom Activities". Allen (1983) thinks that vocabulary is learnt better if students feel a need to use it. Classroom-based communicative activities, task works, simplified readings, dictionary work, and morphological training are examples of classroom activities that can be conducted in terms of vocabulary teaching. According to Coady (1997b) effective vocabulary teaching requires providing definitional and contextual information about words, processing information about words in a deeper level, and through multiple exposures to words.

A widely discussed matter in vocabulary teaching is whether vocabulary teaching should take place incidentally, explicitly, or both of them together. Scholars such as Brown (2009), Coady (1997a), Grabe and Stoller (1997); Nation and Coady (1998), Nation and Waring (1997), and Nagy (1997) believe that incidental vocabulary

learning, especially through extensive reading, is an effective methodology to be applied in vocabulary teaching and learning. Channel (1988) and Oxford and Crookall (1990), on the other hand, are in favor of explicit vocabulary teaching. Hulstijn (1997), Paribakht and Weshe (1997), and Sökmen (1997) agree with the idea of incidental learning through extensive reading and guessing from context partially and suggest that other points have to be taken into consideration as well. Hunt and Beglar (2002) suggest a combination of implicit and explicit vocabulary teaching together with strategy development. Meara and Nation (2002), Nation and Newton (1997), Nation (2002), and Nattinger (1988) propose that besides extensive reading and listening, communicative activities and fluency activities are essential for effective vocabulary learning and teaching.

Coady (1997a) claims that a great deal of L2 vocabulary is learnt through extensive reading. He also points out that beginner learners need to be proficient in at least the basic 3000 words so that they will be able to remember them automatically, a state of which will help them to read independently and start to acquire the language. Coady (1997a) points out that acquiring a lexical base will facilitate success in language learning and extensive reading has an important role in this process. Similarly, Nation and Coady (1988) believe that reading will increase vocabulary knowledge. Therefore, training learners to guess from context should be encouraged and promoted.

Similar to Coady (1997a) and Nation and Coady (1988); Ooi and Kim-Seoh (1996) and Grabe and Stoller (1997) believe that extensive reading is essential in effective vocabulary teaching and learning. To support their ideas Grabe and Stoller (1997) conducted a research on the relationship between reading and vocabulary acquisition. Among other results, they came to the conclusion that reading improves vocabulary knowledge and increased vocabulary knowledge supports reading development. As a result of this, they believe reading and vocabulary abilities will develop through extensive reading. Similarly, Ooi and Kim-Seoh (1996) believe that vocabulary teaching depends on integrating lexis, grammar and discourse and this is possible if vocabulary is taught through reading.

Nation and Waring (1997), too, support the idea that effective vocabulary learning may occur through indirect learning; in particular, through extensive reading and listening. Extensive reading is a good opportunity to be exposed to the most frequent and most useful words and simplified and graded readers prove to be the most beneficial tools for this purpose. However, as Nation and Waring (1997) point out, to be able to benefit from learning through extensive reading, the knowledge of a vocabulary about 3000 words is essential. For this reason, Nation and Waring (1997) suggest that, at the initial stage of language learning, learners need to be directly instructed on vocabulary and encouraged to use tools such as word cards, which are easy to prepare and practical to use.

Similarly, Nagy (1997) and Brown (2009) believe that incidental learning through reading is the ideal way of expanding vocabulary knowledge. Nagy (1997) agrees that L2 learners need some instructional support at the initial stages of language learning; however, he thinks that learners should be given strategic instruction on how to use the context in order to cope with unfamiliar vocabulary. Nagy (1997) believes that even at the very early stages learners may be able to use contextual clues and thus be able to learn vocabulary incidentally through reading. Likewise, Brown (2009), too, argues that extensive reading is an appropriate methodology of vocabulary learning and claims that textbooks should encourage extensive reading and should integrate tasks that would lead learners to extensive reading. Moreover, in his article Brown (2009) suggests direct and indirect ways incorporating extensive reading in text books and claims that if text books include tasks and activities that require learners to do extensive reading, learners will develop skills related to reading and learn a considerable amount of vocabulary.

Channel (1988), on the other hand, is in favor of explicit vocabulary teaching. In the article ‘Psycholinguistic Considerations in the Study of L2 Vocabulary Acquisition’, Channel (1988) claims that vocabulary needs to be a separate learning activity rather than being part of general communication. She also suggests that in the presentation of vocabulary teachers should pay attention to pronunciation and that learners should be able to make their own lexical associates. Finally, Channel (1988) points out that

semantic links are an important part of language production and therefore, in the teaching of vocabulary, a "semantic links based presentation" (p.94) is essential.

Oxford and Crookall (1990: 9-10), too, are in favor of explicit vocabulary teaching and they propose three different techniques of vocabulary teaching which they call 'Decontextualizing techniques", "Semi-contextualizing techniques", and "Fully-contextualizing techniques". Decontextualizing techniques refer to techniques such as using word lists, flash cards and dictionary use. In all these techniques vocabulary is presented in isolation without a certain context. Semi-contextualizing techniques, however, refer to techniques such as word grouping, word or concept association, visual imagery, aural imagery, physical sensation, physical response, keywords, and semantic mapping. These techniques provide a context for a certain extent but still are not fully-contextualizing and are not part of natural communication. Finally, fully-contextualizing techniques involve skill building practices such as reading and listening practice and speaking and writing practice, in which natural communication exists and the vocabulary is presented in a clear context. Except for these three techniques, Oxford and Crookall (1990: 24) also give place to an adaptable technique which is called "Structured review". This technique aims to reinforce the vocabulary teaching technique used in the class and requires the learner to review learnt material in a structured schedule until it becomes automatic.

Another linguist, Sökmen (1997) opposes the opinion that guessing from the context provides learners with vocabulary acquisition. She states that learning words through guessing is a slow process and students rarely can guess the words correctly, and what is more, not being able to guess correctly affects them negatively. According to Sökmen (1997), scholars who advocate the use of this method also overlook the fact that learners have different learning styles and not every individual is able to display this ability. Moreover, learning through guessing from context does not result in long-term retention and it is more applicable to more proficient learners. Sökmen (1997) believes that besides implicit vocabulary teaching, explicit vocabulary teaching should take place. This may raise learners' interest and motivation in learning words. Sökmen (1997) suggests that such steps as building large sight vocabulary, providing a number

of encounters with the new words, integrating new words with the old ones, promoting deep level processing, using variety of techniques, and facilitating imagery and concreteness would be effective steps to follow vocabulary teaching.

Paribakht and Weshe (1997: 173-174) approach the notion "incidental learning through extensive reading" from a different point of view. They remark that learning vocabulary through reading is very effective on L1 vocabulary expansion, however, for L2 vocabulary learning reading is not enough. Paribakht and Wesche (1997) suggest that incidental learning through reading needs to be supported by "instructional intervention" (Paribakht & Wesche, 1997: 174) so that the learning process becomes more efficient.

Hulstijn (1997) has a similar view on incidental learning. He, too, argues that incidental vocabulary learning does not always prove to be sufficient. Different from Paribakht and Wesche (1997) he suggests that the key word method and the use of mnemonic techniques would serve as a "helpful addition" (Hulstijn, 1997: 204) to incidental vocabulary learning. He calls attention to the point that, although this method can be applied to only a minority of vocabulary and is less effective on L2 production than it is on reception, it should not be banned completely from the language classroom. Hulstjin (1997) also suggests that rote memorization should be avoided and that vocabulary items should not be taught in isolation, they should be presented in a meaningful context, and finally, learners should elaborate on the form and meaning of a new word so that word retention is facilitated (Hulstjin, 1997: 214-215). He adds that the keyword method should not be a substitute to these principles but must take place in the teaching of vocabulary when it is applicable.

Nattinger (1988) makes a distinction between teaching vocabulary for comprehension and teaching vocabulary for production. He defines comprehension skill as strategies that permit one to understand and store words; whereas, production skill is a set of strategies that activate one's word storage to retrieve and use those words. According to Nattinger (1988) vocabulary lessons should aim to enhance different strategies both for comprehension and production. He lists techniques to develop learners' comprehension skill under three groups which are techniques that enhance

understanding, techniques that enhance storage in memory and techniques that link perception and understanding of words.

Training learners to guess from context and instruction on word-morphology enhance understanding. Using mnemonic devices, loci, key words, and forming paired-associates are helpful techniques for storing new words in our memory. Total physical response, cognitive depth activities, using formal groups, working on word-families, drawing learners' attention to historical and orthographical similarities, and exercises on collocations are suggested as techniques that link the perception and understanding of words.

Nattinger (1988) also thinks that fluency in vocabulary use should also be developed and this fluency is promoted by pidginization. If learners are encouraged to do their best to produce new language at the very beginning of language learning, without insisting on inflections for example; if they are instructed on basic affixes and are allowed to produce their own derivations when needed, learners would become more fluent in the language. Some other activities based on the use of situational sets, i.e. words related to a particular situation; semantic sets, i.e. words linked to each other with relationships such as synonymy, antonymy, super-ordinates, subordinates etc.; metaphor sets, i.e. vocabulary sets that define an abstract term with concrete and familiar words; and collocations, develop learners' vocabulary retrieval ability.

Another perspective in vocabulary teaching and learning is learning through communicative activities. In their article 'Teaching Vocabulary' Nation and Newton (1997) make a quick review of the aspects of selection, sequencing and presentation of vocabulary and then focus on two important notions; namely, "incorporating vocabulary development into communicative activities" (Nation & Newton, 1997: 241) and "improving learners previously learnt vocabulary knowledge" (Nation & Newton, 1997: 248). Nation and Newton (1997) suggest that explicit vocabulary teaching through word-building exercises, matching words with their definitions, contextual vocabulary study, semantic mapping, split information activities, and even strategy training and implicit vocabulary teaching through communicative activities such as listening to stories, information gap activities, group work and graded reading should be

complement to each other. According to Nation and Newton (1997: 224), vocabulary learning may be an incidental goal of communicative activities. They list the advantages of communicative activities on vocabulary learning as: (1) communicative activities require negotiations in group work through which a certain amount of peer teaching takes place, (2) communicative activities provide a meaningful context which enables guessing from context and the networking of new knowledge within the learners' present knowledge system, (3) learners will have the chance of being exposed to repeated use of newly learnt items and since the repetition takes place in meaningful context it is more likely that they retain the new information, (4) learners have the opportunity to use newly learnt items productively, and (5) peer-interaction provides a more affectively learner–friendly learning environment to learners in terms of making errors.

Effective vocabulary learning through communicative activities depends on the choice of vocabulary included in the activity, its placement within the activity and the demands of the activity. Nation and Newton (1997: 245) suggest that targeted vocabulary could be placed in instructions, diagrams, lists, sets of rules, or descriptions of a scenario. They draw attention to the point that, new vocabulary should not hinder the flow of the task performance and if it is necessary, pre-teaching and glossing could be helpful methodologies to eliminate possible difficulties in comprehension.

In their article, Nation and Newton (1997) give also place to fluency activities and richness activities, which provide the learners with quick access to learnt vocabulary. They characterize fluency activities as activities that have limited demands on learners; that involve repetition of newly learnt vocabulary through tasks; and that expect learners to reach high level of automaticity. As for richness activities, these aim to increase the number of associations attached to a word both in terms of syntax and pragmatics. Collocations activities, semantic mapping, and dictation activities are such kinds of activities.

Meara and Nation (2002) and Nation (2002) share similar ideas with Nation and Newton (1997: 268) and list "the four strands of vocabulary learning", which are:

> "(1) Meaning-focused Input (reading and listening), (2) Meaning-focused Output (speaking and writing), (3) Language-focused Instruction (Deliberate Vocabulary Learning), and (4) Fluency Development"

Meaning-focused input is defined as learning incidentally through listening and reading. According to Meara and Nation (2002), in order to provide learning through meaning-focused input, unknown vocabulary should be presented in small portions, large quantity of input should be provided to learners and deliberate attention should be drawn on unknown vocabulary. Nation (2002) argues that repeated opportunities of reading and listening provide cumulative learning of vocabulary and that considerable amount of meaning-focused input is needed for vocabulary growth. Meara and Nation (2002) state that there is a relationship between vocabulary growth and the amount and variety of meaning-focused input provided to learners and they further suggest that graded readers are suitable for this purpose because they have vocabulary control and that reading in, especially, unfamiliar areas will influence vocabulary learning. However, Nation (2002) reminds that providing input is not enough and that deliberate attention drawing on new vocabulary and performing language–focused activities make learning certain.

Learning from meaning- focused output mostly depends on speaking. Nation (2002) remarks that there are no studies on writing or its effect on vocabulary learning but that research shows that spoken production of vocabulary helps learning. According to him, written input to tasks, negotiation of unknown words, the use of previously unknown vocabulary during task performance and peer-learning contribute to vocabulary learning. Nation (2002) also claims that by a careful design and monitoring of hand-outs given to learners for spoken tasks teachers may determine and influence the vocabulary to be learnt in that particular task.

Meara and Nation (2002) claim that direct learning is more effective on learners; however, it should be enriched by meaning-focused input and output and fluency development activities. Deliberate vocabulary learning requires "rich instruction" (Beck, McKeown and Omanson, 1987: 149; cited in Meara and Nation, 2002: 42). Spending time on a word and on aspects such as spelling, pronunciation, word parts, collocations, meaning, grammatical patterns and contexts of use help consciousness

raising, strategy development and implicit word knowledge as well (Nation, 2002: 270). Nation (2002) suggests training for guessing from context, studying word parts and using mnemonic devices as effective ways of language-focused instruction.

Developing fluency, on the other hand, involves repeated practice of known items through building connections and associations among them. Nation (2002: 269) defines it as "the best use of what you already know". These tasks are typically meaning focused. The learners are encouraged to reach a higher level of performance in terms of retrieval and fluency.

Hunt and Beglar (2002) present a framework for vocabulary development by combining three approaches which are incidental learning, explicit instruction and strategy development. According to them incidental learning requires providing opportunities for extensive reading and listening. Explicit instruction; on the other hand, means diagnosing learner needs, initial presentation of words, developing word knowledge and fluency. In terms of strategy development, Hunt and Beglar (2002) focus on practicing guessing from context and training students for dictionary use. They also add that, although all these approaches are essential for efficient vocabulary learning, it is necessary to take learners' proficiency level and learning situations into consideration. Hunt and Beglar (2002) suggest that explicit teaching should be emphasized for beginner level learners while implicit teaching is more effective on more advanced students and that dictionary training should start from the very beginning of language instruction.

Similar to Hunt and Beglar (2002), Summers (1988) believes that dictionary use is an essential component of vocabulary instruction. According to her, using dictionaries in learning vocabulary is worthwhile although it has been seen by many teachers as a too easy method which does not require mental effort at all. Summers (1988) claims that dictionaries provide learners with an exposure to other contexts, different collocations and constructions which learners relate to the actual usage in their learning material; an activity, which in fact requires mental activity.

2.2.4. Research on Vocabulary Teaching in the Global and Local Contexts

Vocabulary teaching research has been conducted under different topics. Most studies are in connection with skills, especially writing and reading skills. Linguists who support the idea that vocabulary is best learnt implicitly through extensive reading have directed their focus on how extensive reading enhances vocabulary learning, on the relationship between reading and vocabulary learning, or on how extensive reading can be used as a tool for vocabulary learning.

Jenkins, Stein and Wysocki (1984), for example, examined their participants' vocabulary learning rate by extensive reading. Their studies showed that reading accelerated vocabulary learning due to the fact that extensive reading materials provided learners with more frequent presentation of vocabulary in context. As the learners were indulged in extensive reading they were exposed to the same vocabulary items in different contexts more frequently, and this resulted in better learning. Jenkins et al. (1984) claim that by pre-teaching some vocabulary items, vocabulary acquisition was maximized. A similar study by Nagy, Herman and Anderson (1985) also revealed that learners learnt vocabulary much successfully through reading natural texts.

Closely related to reading, inferencing has also been seen as a method of vocabulary learning; therefore, some linguists have conducted studies on inferencing techniques and how inferencing skills affect vocabulary learning. Hulstijn's (1992) study revealed that inferred words in reading activities were better learnt than readily presented words, provided that sufficient clues were present for successful inferencing. In a more recent study, Hamada (2009) studied the effects of instructing learners on meaning inferencing techniques on their vocabulary acquisition rate. Hamada's (2009) study showed that, after students received some formal instruction and practice on inferencing techniques, their vocabulary acquisition rate increased together with their amount of strategy use.

Implicit vocabulary learning is not limited only by reading skills; there have been studies on other tools or materials that prove to be useful on incidental vocabulary learning. Laufer (2003), for example, opposes to the idea that most incidental

vocabulary learning is attained through reading. According to Laufer's (2003) study, compared to vocabulary learning through reading activities, vocabulary learning through completing tasks such as sentence completion, using words in sentences, and incorporating new vocabulary in writing compositions was more successful. Therefore, Laufer (2003) claims that vocabulary learning activities should focus on tasks. In a more recent work, Palmberg (2006) points out that in traditional vocabulary teaching applications very little is taken by learners and this little knowledge is not transferred into long-term memory. Palmberg (2006) argues that it is essential that newly learnt vocabulary should be recycled and repeated by riddles, dictionary activities, or word games so that they are transferred to the learners' long-term memory. In his article, Palmberg (2006) also proposes several word awareness activities to be used in language classrooms. Webb and Rodgers (2009), on the other hand, approach the notion incidental vocabulary learning from a different point of view. They claim that provided that learners already know the most frequent 3000 word families, there is a significant increase in the amount of incidental vocabulary learning if they watch at least one hour of English programs on television a day.

Some other researchers oppose to the idea that implicit vocabulary is more effective than explicit vocabulary learning and provide us with some research results they have attained. One of these studies is conducted by Lee (2003). Lee (2003) reports that in his study explicit pre-instruction of vocabulary resulted in more productive outcomes in writing activities conducted throughout the study. Similarly, Sonbul and Schmitt (2009) claim that explicit instruction following reading activities proved to be more effective in vocabulary learning than reading activities without explicit post-teaching sessions.

Not all studies on vocabulary teaching are related to four skills. Papathanasiou (2009) compared the vocabulary learning rate in two different presentation techniques; namely, presenting vocabulary in semantically related or unrelated sets. Contrary to the common expectations and text book applications, presenting vocabulary in semantically unrelated sets was observed to be more successful than presenting vocabulary in semantically related sets. It was observed that in the case of presenting semantically

related vocabulary, learners tended to confuse newly learnt semantically related word but were more successful when vocabulary was presented in semantically unrelated sets. A similar study conducted in the local context by Erten and Tekin (2008) also proved that learning vocabulary in semantically unrelated sets had been more successfully learnt in comparison to semantically related sets.

A final study to be presented in this section is Çevik's (2003) study on vocabulary teaching. In his study Çevik (2003) investigated the effectiveness of teaching vocabulary through code-mixing, which means presenting new vocabulary in an English context but first in L1 then in L2. According to Çevik (2003), this technique creates amusement in the language classroom which leads to high motivation and willingness in vocabulary learning. Presenting the new vocabulary in an English context in L1 also decreases the initial intimidation of learning unknown vocabulary and finally, the immediate presentation of the L2 version aids in long- retention.

The literature on vocabulary teaching implications shows that most of the discussion is on whether vocabulary should be taught implicitly, explicitly or both of them together (Brown, 2009; Channel, 1988; Coady, 1997a; Grabe & Stoller, 1997; Hulstijn, 1997; Nation & Coady, 1998; Nation & Waring, 1997; Nagy, 1997; Oxford & Crookall, 1990; Paribakht & Weshe, 1997; Sökmen, 1997). Some other scholars suggest that besides implicit and explicit vocabulary teaching, fluency development activities should also be part of effective vocabulary teaching (Meara & Nation, 2002; Nation & Newton, 1997; Nation, 2002; and Nattinger, 1988). Others propose alternative techniques such as the use of mnemonic devices (Hulstijn, 1997, Nattinger, 1988), dictionary use (Summers, 1988), or strategy training (Hunt & Beglar, 2002). In the light of the basic principles of vocabulary teaching and learning, some studies conducted in this area are also reviewed. The following section will focus on language learning strategies; in particular, vocabulary learning strategies and the place of strategy development in vocabulary learning.

2.3. STRATEGY DEVELOPMENT IN VOCABULARY LEARNING

Learning strategies have been in the centre of discussions in language learning since the 1970's. Since Rubin's studies on 'the good language learner' in 1975 and Naiman's studies in 1978, the term 'learner strategies' became an issue of debate. This section of the literature review aims to provide a definition, to list the different features, and to remark the importance of 'learner strategies'. It also aims to state the conditions that identify learners' strategy choice, to present studies conducted on learner strategies and then to classify "learner strategies". Next, a description and classification of "vocabulary learning strategies" is made. This section finally reviews studies on keeping vocabulary notebooks, one of the vocabulary learning strategies which constitute the starting point of this study.

2.3.1. General Concepts on Language Learning Strategies: Definitions, Features and Importance of Language Learning Strategies

Learner strategies have been the centre of discussion since the mid 1970's. Since the beginning of mid 1970's, studies on good language learners have been conducted. It was believed that if it were possible to identify how good learners achieve their success, it was also possible to contribute to the proficiency level of poorer learners by instructing them on the techniques of good language learners. This idea brought out the term 'learner strategies'.

Rubin (1975), one of the first scholars who has conducted considerable research on good language learners, defines learner strategies in the simplest way as "techniques or devices which a learner may use to acquire knowledge" (p.43) and draws attention to common techniques used by successful language learners. In a later study Wenden and Rubin (1987) differentiate language learning strategies from learning strategies as:

> "…strategies which contribute to the development of the language system which the learner constructs and affect learning directly" (Rubin (1987: 221)

Another linguist, Nunan (1991) underlines the cognitive aspect of applying learner strategies and makes a more specific definition. According to Nunan (1991)

learner strategies are "mental processes which learners employ to learn and use the target language" (Nunan, 1991: 168).

On the other hand, O'Malley and Chamot (1985, cited in Griffiths, 2008, p.84), who have conducted their studies under the light of the Cognitive Theory, make a more elaborate definition of learner strategies. According to them, learner strategies are:

> "…any set of operations or steps used by a learner that will facilitate the acquisition, storage, retrieval or use of information" (O'Malley & Chamot, 1985 cited in Griffiths, 2008: 84)

Another remarkable linguist, Cohen (2007) indicates the cognitive feature of learner strategies and defines learner strategies as

> "…conscious thoughts and behaviors used by learners with the explicit goal of improving their knowledge and understanding of a target language" (Cohen & Macaro, 2007: 1)

Learner strategies have been the interest of many linguists; however, it has been the centre of Oxford's (1990; 2002) studies and research. Oxford (1990; 2002) and Oxford and Crookall (1990) provide us with several different definitions of learner strategies, which are:

> "…specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective and more transferrable to new situations" (Oxford,1990, p.8)

> "…goal-oriented actions or steps that learners take with some degree of consciousness, to enhance their learning" (Oxford, 2002: 41)

> "…actions or behavior which learners use to make language learning more effective, efficient and enjoyable" (Oxford & Crookall, 1990: 109)

Oxford (1990), who has conducted considerable amount of research on learner strategies, lists the following common features of them:

> "(1) they suggest an active approach which results in mental and/or physical behavior, (2) consciousness is their basic characteristics, (3) depending on contextual features and individual factors, strategies are means of improving competence, (4) they imply goal-oriented, purposeful activities, (5) they are used by learners for the purpose of controlling and regulating their learning, and (6) the goal of strategy use is the facilitation of learning" (Oxford, 1990: 9).

Takač (2008) states the features of language learning strategies as: (1) they are specific actions or techniques, (2) some are observable some are not, (3) they are problem-oriented, (4) they contribute to learning directly and/or indirectly, (5) they can be conscious and subconscious, (6) they can be changed, new ones can be adopted and old ones can be altered or abandoned, (7) they enable learners to become autonomous and effective outside the classroom, (8) they can change the role of the teacher, (9) they have cognitive, metacognitive, social and affective aspects, (10) they are systematic, and (11) they are finite.

Strategy use is essential for enhancing self-learning; that is, if learners can control their own learning, it is assumed that they can begin to take charge of their learning even when the teacher is not present (Wenden & Rubin, 1987) or as Oxford (2002: 52) puts forth "they are signs of learner autonomy" and "active, timely and coordinated strategy use embodies responsibility for learning".

Oxford (2002: 52) also points out that strategies are both "learnable and teachable" and as learners are not born with them, she suggests that it is necessary to learn them. She also emphasizes that good strategy training provides the learner with thinking about themselves as learners, about the language, why they are learning a language, and how to make the greatest progress

Fernandes, Ellis and Sinclair (1990) suggest another aspect of the importance of strategy use; namely, from the view point of teachers. In their opinion, strategies used by successful learners are beneficial to teachers as well in the sense that they may "provide guidelines" for designing communicative activities which help learners to become "actively involved into the learning process" (Fernandes et al., 1990: 103).

Strategy use is related to different factors which Rubin (1975) lists as: (1) the learning task, (2) the learning stage, (3) the learner's age, (4) the learning context, (5) individual learning styles, and (6) cultural differences in learning styles.

Klapper (2002) adds to these factors two others; namely, "motivation" and" learners' proficiency" level (Klapper, 2002: 174). Hsiao and Oxford (2002) put emphasize on the learning environment in strategy choice.

Apart from the factors proposed by Oxford (1990) and Klapper (2002), Takač (2008) mentions the following factors that affect strategy use and choice: (1) learners' desire to learn, (2) learners' affective state, (3) gender, (4) nationality, (5) previous learning experiences, (6) learners' self-efficacy, and (7) learners' beliefs and assumptions on language learning.

There have been a vast number of studies conducted on learners and their strategy choice. Porte (1988), for example, claims that all learners use strategies; even under-scorers. However, their strategy choice is not as efficient as good learners due to the fact that this strategy choice is affected by their formal learning habits. In his article, Porte (1988) also proposes activities that can promote underscoring learners' strategy choice.

Halbach (2000) analyzed student dairies in order to find out learners' strategy use. Her studies showed the result that, unlike Porte's (1988) study, successful learners used more different strategies from their unsuccessful peers. Depending on Cummins's (1981) view that there is a threshold for learning strategies in terms of language proficiency, Halbach (2000) claims that unsuccessful learners may even not be able to learn any strategies at all.

Cohen (2003) emphasizes the importance of explicit strategy training and proposes a strategy based classroom instruction where learners apply the strategy in their learning and use the language when studying. Cohen (2003) also sets goals for strategy training and presents a framework for strategy training, options for providing strategy training and steps for designing explicit strategy training.

Tseng, Dörnyei and Schmitt (2006) support the importance of strategy knowledge and define strategy learning as "goal-oriented, intentionally evoked and effortful" (Tseng et al., 2006: 80). According to them if learners can develop, personalize and use a set of learning strategies, they will achieve language proficiency much easier and in a much facilitated manner.

Similarly Pintrich and Garcia (1991 cited in Woodrow, 200: 299) believe that learning strategies represent an element in successful learning and support Oxford's

(2002) view that strategies can be taught, are very important and constitute a central issue in self–regulation and autonomy.

Another researcher of the field, Macaro (2006) examines the relationship between strategy use and language learning success. He claims that strategies are located in our working memory and that they are used in clusters rather than in a linear fashion. They are "transferable to tasks and situations" and are "situation–specific" (Macaro, 2006: 328). Successful learning does not mean using a lot of strategies but the "orchestration of strategies available to the learner" (Macaro, 2006: 332). In his article, Macaro (2006) also gives account of studies on learner strategies, criticisms made on these strategies and presents different models of classifications of learner strategies.

2.3.2. Classification of Language Learning Strategies

Studies on language learning strategies were not only in search of providing a definition, listing the features and stating the importance of learning strategies. A more elaborate and more controversial area of research has been the categorization of learner strategies. A considerable number of linguists have been dwelling on the categorization of strategies and formulating language learning taxonomies, Rubin (1975), Stern (1975), Naiman et al. (1978), Oxford (1990), O'Malley and Chamot (1990) being the most prominent names of this field. Some other researchers, however, have been in the effort of comparing, reformulating and adopting present language learning strategies.

Rubin (1975) and her studies on good language learners have been the most important steps taken in the area of learner strategies research. As it is stated in Cohen and Macaro (2007: 11), "the birth of language learning strategies" was by Rubin's (1975) article "What 'the good language learner' can teach us". The notion of language learning strategies was first stated by this article (Cohen & Macaro, 2007). In this article Rubin (1975) lists the features of a good language learner as:

> "…is a good guesser."
> "…is willing to appear foolish in order to communicate and get his message across."
> "… will try to bring his newly acquired competence in use."
> "…has a strong drive to communicate and learn from a communication."
> "…is prepared to attend to form"

"… monitors his own speech and the speech of others."
"…attends to meaning." (Rubin, 1975: 43-48)

In her later studies Rubin (1981 cited in Cohen & Macaro, 2007: 11), names two groups of strategies which are "direct and indirect processes that contribute to learning". Under these two main strategies Rubin (1981) lists the following specific strategies:

Table 2.1. Learning strategies according to Rubin

Processes which contribute directly to learning	Processes which contribute indirectly to learning
1. Clarification and verification	1.Creates opportunities for practice
2. Monitoring	2.Production tasks related to communication
3.Memorization	
4.Guessing/inductive inferencing	
5.Deductive reasoning	
6.Practice	

[Adapted from Rubin 1981 (cited in Cohen & Macaro, 2007: 11)]

Another name, Stern (1975) lists ten strategies.

Table 2.2. Learner strategies according to Stern

Common Strategies of Good Language Learners
A personal learning style or positive learning strategies
An active approach to task
A tolerant and outgoing approach to the target language and empathy with its speakers
Technical know-how about how to tackle a language.
Strategies of experimentation and planning with the object of developing the new language into an ordered system and/or revising this system.
Constantly searching for meaning.
Willingness to practice.
Willingness to use language in real communication.
Self-monitoring and crucial sensitivity to language use.
Developing the target language more and more as a separate reference system and learning to think in it.

[Adapted from Stern 1975 (cited in Cohen & Macaro, 2007: 11-12)]

Naiman and his colleagues (1978, cited in Cohen & Macaro, 2007) did not name them as language learning strategies, however, they had identified basically five behaviors of successful language learners (Oxford & Crookall, 1990; Skehan, 2001; Cohen & Macaro, 2007).

Table 2.3. Five behaviors of successful learners

Naiman's Five Behaviors of Successful Language Learners
Selecting language situations to use learner preferences.
Being actively involved in language learning.
Seeing language as a rule system and communication tool.
Learning to think in the language.
Addressing the affective demands of language learning.

[Adapted from Naiman et al., 1978 (cited in Cohen & Macaro, 2007: 12)]

Following Naiman's (1978) studies, strategy theorists started to debate on the issue of developing a coherent taxonomy of language learning strategy types (Nunan, 1991: 168). Ellis (1985; cited in Nunan 1991) was one the first scholars to form a taxonomy of language learning strategies. This taxonomy consisted of three steps of language learning and five strategies attached to these steps as in Table 2.4.

Table 2.4. Three steps of language learning

Ellis's Three Steps of Language Learning
Step I: Hypothesis formation
1) Simplification
2)Inferencing
Step II: Hypothesis testing
1)Trying rules
2) Monitoring
Step III: Automatisation
1)Practicing

[Adapted from Ellis 1985 (cited in Nunan, 1991: 168)]

Ellis and Sinclair (1989; cited in Nunan, 1991: 169), group strategies according to skills such as; listening, reading, writing, speaking, grammar and vocabulary. On the other hand, another linguist, Willing (1989; cited in Nunan, 1991: 169), names two main strategies and nine sub-strategies related to them. Willing's (1989) strategies are listed in Table 2.5.

Table 2.5. Language learning strategies

I: Strategies for managing the learning process	II: Strategies for managing information.
1. Developing a language learning preference.	1. Attending selectively
2. Practicing.	2. Associating.
3. Monitoring.	3. Categorizing.
4.Evaluating	4. Pattern learning.
	5. Inferencing.

[Adapted from Willing 1989 (cited in Nunan, 1991: 169)]

The most elaborate and most accepted taxonomies, however, belong to Oxford (1990) and O'Malley and Chamot (1990). O'Malley and Chamot (1990) group strategies into three: Cognitive Strategies, Metacognitive Strategies and Social-Affective Strategies (Griffiths, 2008; O'Malley & Chamot, 1990; Schmitt, 2002). Oxford's (1990) taxonomy shares some common features with O'Malley and Chamot's (1990) classification but is more detailed. Oxford's (1990) basic six language learning strategies are: Metacognitive Strategies, Social Strategies, Affective Strategies, Memory Strategies, Cognitive Strategies and Compensation Strategies (Griffiths, 2008; Oxford, 1990; Oxford & Crookall, 1990). In a later study, on the other hand, Oxford (2002) classifies these strategies under four main groups; namely, Metacognitive Strategies, Affective Strategies, Cognitive Strategies and Social- Interactive Strategies.

Cognitive strategies are the most used type of strategies used in classroom environments (Fernandes et al., 1990). Takač (2008: 52) these strategies as:

> "mental steps or actions that are employed in learning or problem solving that require direct analysis, transformation or synthesis of learning material"

These strategies involve the language which is being learnt (Oxford, 1990) and are related to the mental processing of the target language creating a cognitive schema (Oxford, 2002). In fact, they are essential for the processing of the language information and integrating it in the learners' long- term memory. They involve the identification, grouping, retention and storage of the language material and the retrieval, rehearsal and production of words in the phase of language use (Schmitt, 2002).

O'Malley and Chamot's (1990) Cognitive Strategies are concerned with activities that promote learning (Skehan, 2001: 264-265) and incorporate strategies such as rehearsal, translation, note taking, substitution, and contextualization. Whereas Oxford's (1990) Cognitive Strategies include practicing, receiving and sending messages, analyzing and reasoning, and creating structure for input and output. Moreover, those four strategies involve fifteen different sub-strategies that require cognitive processing of information and language material.

Another broad group of strategies are metacognitive strategies. These strategies are related to the general management of learning (Oxford, 1990) and are concerned with "reflection", i.e. learners' developing self-awareness in learning and discovering their strengths and weaknesses; and with "flexibility", i.e. organizing and giving purpose to strategy use and appropriate strategy choice (Skehan, 2001: 265). As Schmitt (2002) points out metacognitive strategies are processes learners use to "supervise" and" manage" their learning (Schmitt, 2002: 181) They are guides to the learning process (Oxford, 2002) which involve planning of learning, setting goals, thinking about the process, monitoring of performance and comprehension, evaluating the results and the learning process, and being aware of strategy use (Takač, 2008).

Both Oxford's (1990) and O'Malley and Chamot's (1990) taxonomies have metacognitive strategies. O'Malley and Chamot's (1990) Metacognitive Strategies involve planning which takes place as "organizational planning" and "delayed production" (O'Malley & Chamot, 1990: 26). Oxford's (1990) Metacognitive Strategies, on the other hand, involve three groups of strategies; namely, "centering learning", "arranging and planning learning", and "evaluating learning" (Oxford, 1990: 17). According to Oxford's (1990) taxonomy, these three main strategies branch into

eleven sub-strategies that require higher order reflection and evaluation of the learning process.

Social strategies are strategies which are closely related to cooperation with other learners, the teacher or other speakers of the target language (Takač, 2008); or as Schmitt (2002) describes "actions learners perform to interact with others" (Schmitt, 2002: 181). Wong-Fillmore (1979; cited in Cohen & Macaro, 2007) was one of the first scholars who conducted studies on Social Strategies.

Social strategies are usually considered together with Affective Strategies. These strategies serve to manage emotions (Oxford, 2002) and regulate motivation and attitudes (Schmitt, 2002). In other words, they are attempts to understand and gain control of feelings (Takač, 2008). O'Malley and Chamot's (1990) third type of strategies are Social-Affective Strategies. These strategies require the use of techniques that reduce anxiety and make the learner feel competent in the performance of learning tasks (O'Malley & Chamot, 1990: 126). These techniques are related to issues such as how learners engage in social interactions more affectively, how they use their fellow learners and other interlocutors to help them solve problems, how they deal with affective problems, and how they give themselves encouragement to deal with anxiety (Skehan, 2001).

Unlike O'Malley and Chamot (1990), Oxford (1990) separates Affective Strategies from Social Strategies. According to Oxford's (1990) taxonomy, Social Strategies, which she calls Social-Interactive Strategies in a later study (Oxford, 2002), consist of three main strategies such as: "asking questions", "cooperating with others" and "empathizing with others" (Oxford, 1990: 21) These three main strategies are divided into six sub-strategies the use of which depends on the amount of social interaction the learners have with their peers, the teacher and the culture in which the language learning takes place (Oxford, 2002).

As mentioned above, Oxford's (1990) taxonomy separates Affective Strategies from Social Strategies. Oxford's (1990) Affective Strategies include three main strategies; namely, "lowering anxiety", "encouraging oneself", and "taking emotional

temperature" (Oxford, 1990: 23). Those three main strategies are again divided into ten sub-strategies.

Different from O'Malley and Chamot's (1990) taxonomy, Oxford's (1990) taxonomy accepts two other types of strategies; namely, Compensation Strategies and Memory Strategies. There are two groups of Compensation Strategies which are "guessing intelligently" and "overcoming limitations in speaking and writing" (Oxford, 1990: 24-25). These two groups of strategies branch into ten sub-strategies. Memory Strategies, too, are divided into a number of groups of strategies. There are four groups of strategies which are listed as "creating mental linkages", "applying images and sounds", "reviewing well", and "employing actions". Those main strategies are again divided into ten sub-strategies.

Apart from these taxonomies, Cohen (2002) distinguishes "language learning strategies"; i.e. strategies applied in order to improve knowledge and understanding of the target language, from "language use strategies"; i.e. strategies employed in using the learnt knowledge. He sub-categorizes language use strategies into "Retrieval Strategies", "Rehearsal Strategies", "Communication Strategies", and "Cover Strategies". In addition to these, Cohen (2002) mentions a third type of strategy, which is "Self-Motivation Strategies" (Cohen, 2002: 178-181). Communication strategies, Listening strategies, Writing strategies, Reading strategies, Speaking strategies and finally Vocabulary strategies, which will be the next topic to be discussed, are the other groups of strategies Cohen (2002) mentions.

2.3.3. Vocabulary Learning Strategies

The classification studies on language learning strategies led researchers to discover and classify the strategies required to the learning and acquisition of different skills, one of them being vocabulary learning skills. This was not very difficult because as Takač (2008) puts forth, most language learning strategies might be used in vocabulary learning. In other words, learners use strategies more frequently in vocabulary learning (Klapper, 2002; Takač, 2008) because it is easier to apply specific strategies to learning vocabulary than any other skill (Klapper, 2002). Vocabulary

learning strategies are used to discover the meaning of unknown words and to integrate and consolidate the newly acquired vocabulary (Nation, 1990). According to Cohen (2002), on the other hand, learners use vocabulary learning strategies in order to memorize words, to review vocabulary, to recall vocabulary, and to make use of vocabulary. Similarly, Jurkovič (2006: 24) describes vocabulary learning strategies as ”the knowledge” about what learners do “to find out the meaning of new words”, “retain“ them in their long-term memory, “recall” them when needed , and “use them in language production”.

In previous studies Ahmed (1989; cited in Takač, 2008) found out that good learners used strategies such as using new words in new context, asking for tests, asking for assistance, using written sources to verify knowledge and self-testing. Gu and Johnson (1996 ; cited in Takač, 2008) claimed that the most successfully used strategies were “guessing from the context”, “skilled dictionary use”, “note taking”, “paying attention to word-formation”, “contextual encoding” and “the activation of newly learnt words by using them in language production”. Fan (2003; cited in Takač, 2008) stated that good students planned their vocabulary learning in the class and also out of the class, used guessing in harmony with their knowledge of grammar and morphology, and made effective use of dictionary using strategies.

Starting from the late 80’ there has been a considerable number of studies on Vocabulary Learning Strategies (VLS from now on) in connection with issues such as learners’ proficiency levels (Goh & Foong, 1997; Halbach 2000; Porte, 1988; Tuluhong, 2006), gender (Goh & Foong, 1997; Gu, 2002; Üster, 2008), learning styles (Gu, 2003), age (Comesaña, Perea, Piñeiro & Frage 2008; Marin, 2006), learning environments (Dakun & Gieve, 2008; Jurković, 2006; Lawson & Hogben, 1996; Marin, 2006), and learning tasks (Brown & Perry, 1991; Çelik, 2002; Erten & Tekin, 2008; Lequex, 2004; Webb & Rodgers, 2009). These studies showed that proficient students outperformed their less proficient peers in terms of strategy use. Similarly girls were more successful than boys and advanced learners were better than novice learners. In addition, the learners’ age and their learning styles, the learning environment, and the

learning task applied in the process of learning influenced learners' strategy use and choice (Cohen & Macaro, 2007).

Apart from these studies, the classification of VLS and the most frequently used strategies in vocabulary learning have also been an issue of debate among the scholars of the field. To start with, Ahmed (1989, cited in Takač, 2008) classified 38 VLS into five groups of strategies which he listed as in Table 2.6.

Table 2.6. Groups of vocabulary learning strategies according to Ahmed

Groups of Vocabulary Learning Strategies According to Ahmed
Practicing
Dictionary use
Note taking
Memorization
Group work

[Adapted from Ahmed (1989, cited in Takač, 2008: 64)]

Stoffer (1995, cited in Segler, Paine & Sorace, 2002) is well-known for his Vocabulary Learning Strategies Inventory (VOLSI) in which he categorizes VLS under nine groups.

Table 2.7. Categories of vocabulary learning strategies

Categories of Vocabulary Learning Strategies
Strategies involving authentic language use
Strategies used for self-motivation
Strategies used for organizing words
Strategies used to create mental linkages
Memory strategies
Strategies involving creative activities
Strategies involving physical action
Strategies used to overcome anxiety
Auditory strategies

[Adapted from Stoffer (1995, cited in Segler, Paine & Sorace, 2002: 411).]

Gu and Johnson (1996, cited in Nation, 2005) identified 91 different VLS and grouped them as in Table 2.8.

Table 2.8. Classification of vocabulary learning strategies

Classification of Vocabulary Learning Strategies
Learners' beliefs about vocabulary learning
Metacognitive regulation
Guessing strategies
Dictionary strategies
Note taking strategies
Memory strategies (rehearsal)
Memory strategies (encoding)
Activation strategies

[Adapted from Gu & Johnson (1996, cited in Nation: 2001).]

Two linguists, Hatch and Brown (2000, cited in Takač, 2008) do not group strategies according to their types but they classify them according to their use in terms of vocabulary learning steps.

Table 2.9. Vocabulary learning steps

Vocabulary Learning Steps
Encountering the word
Creating a mental picture
Learning the word's meaning
Creating a linkage between the word form and its meaning in the memory
Using the words

[Adapted from Hatch & Brown (2000, cited in Takač, 2008: 73).]

Nation (2002) puts forth three aspects of vocabulary knowledge and categorizes different strategies under these three aspects:

Table 2.10. Aspects of vocabulary knowledge

Aspects of Vocabulary Knowledge
Planning (i.e. choosing what to focus on and when to focus on it.)
Access to sources (i.e. finding information about words.)
Learning processes (i.e. establishing knowledge.)

[Adapted from Nation (2002).]

Nyikos and Fan (2007) classify VLS into three groups.

Table 2.11. Groups of vocabulary learning strategies according to Nyikos & Fan

Groups of Vocabulary Learning Strategies According to Nyikos & Fan
Decontextualized VLS
Contextualized Vocabulary Inferencing Strategies
Dictionary and Electronic Look-up Strategies

[Adapted from Nyikos & Fan (2007: 259).]

The most accepted VLS taxonomy, however, is Schmitt's (1997; cited in Takač, 2008) Taxonomy of Vocabulary Learning Strategies. This taxonomy is an adaptation of Oxford's (1990) well-known Strategy Inventory of Language Learning (SILL). In his taxonomy Schmitt (1997) specified 58 VLS under two groups which are 'Discovery Strategies' and 'Consolidation Strategies'. These two groups of strategies consist of different strategies which are classified into five types of strategies. These types of strategies are in Table 2.12.

Table 2.12. Types of vocabulary learning strategies

Types of Vocabulary Learning Strategies
Memory Strategies
Determination strategies
Cognitive Strategies
Social Strategies
Metacognitive Strategies

[Adapted from Schmitt (1997).]

In all these above mentioned classifications and groupings there are a vast number of vocabulary learning strategies. The most frequently VLS mentioned in different sources appear to be:

Table 2.13. List of most frequently used vocabulary learning strategies

Most Frequently Used Vocabulary Learning Strategies
route memorization
using word cards
highlighting new vocabulary
semantic mapping
repetition (verbal or written)
grouping
labeling
word analysis
personalization
creating mental/visual imagery
expanded rehearsal
integrating new vocabulary with old ones
dictionary use (monolingual, bilingual, electronic)
word lists
using in language production
keeping diaries
keeping vocabulary notebooks
proving a synonym/ antonym
using in sentences
using mnemonic techniques (keyword method, loci method, peg method)
self-testing
note-taking
using physical action
asking somebody for the meaning of a word
using inferencing techniques
checking for cognates

[Adapted from Cohen (2002), Cohen and Macaro (2007), Hulstijn (1997), Nation (2002), Nation and Meara (2002), Schmitt (1997), Schmitt (2002), Takač (2008).]

Among all the strategies mentioned in the relevant literature, Takač (2008) lists the most frequently used VLS as route memorization, repetition, using key words, inferencing, semantic elaboration, rhyme and rhythm, the loci method, the peg method, self-testing, revision in intervals, practicing in natural situations, word-formation analysis, dictionary use, using the media and computer, and keeping vocabulary notebooks, which is the starting point of this study.

As it is seen, there have been many VLS identified by different scholars. These strategies have been classified and categorized by several linguists. Taxonomies have been formulated in order to group certain strategies under certain functions and usages. Researchers of the field have conducted studies on VLS in connection with issues such as gender, age, proficiency level, learning environment or learning styles. Among many strategies the most frequently used strategies have also been identified. The next section will be allocated to one of these frequently used VLS; namely, keeping vocabulary notebooks.

2.3.4. Vocabulary Notebooks

Vocabulary notebooks are described by Schmitt and Schmitt (1995) as a notebook which is arranged in loose-leaf binders or even as index cards put in a box so that the learner can change the order of the pages in the notebook, group and re-group them in order to facilitate their learning, and carry them wherever they wish. However, they also warn that the size of the notebook to be used should be convenient enough to include information such as the different meanings of the word; if possible a simple illustration of it; some necessary information about the word like parts of speech, grammatical features, different derivations, collocations, semantic mappings, pronunciation; and sample sentences produced by the learner (Marzano, 2005; Schmitt & Schmitt, 1995). Vocabulary notebooks serve as personal archives and as tools to rehearse formerly learnt vocabulary, giving the learner the opportunity to add new information about the word to be learnt, to encounter it in several different ways, and to use it in different language tasks (Marzano, 2005). Since the learners are expected to add as many kinds of information as they can about each word they note in their vocabulary notebook, this will not only teach them “to learn a word from different

perspectives" (Schmitt & Schmitt, 1995: 142) but will also foster learner autonomy (Fowle, 2002; McCrostie, 2007; Schmitt & Schmitt, 1995; Takač, 2008).

There have been a number of studies conducted on keeping vocabulary notebooks in terms of their effects on strategy development and building learner autonomy. In Fowle's (2002) study on secondary school Thai students, it was observed that keeping a vocabulary notebook helped learners gain confidence in terms of language learning and become aware of their responsibilities as learners as well as developing language awareness. This study also promoted their strategy development; in that, the learners who participated in this study showed signs that they became more skillful in "manipulating the language", "decision making", "relating new material to existing knowledge", "forming social interaction", and "deducing meaning" (Fowle, 2002: 383).

Another study conducted on keeping vocabulary notebooks was McCrostie's (2007) study on Japanese university students. In this study McCrostie (2007) investigated the source of the vocabulary learners decided to write in their notebooks; the types of words learners frequently wrote in their vocabulary notebooks; and finally the reasoning behind the learners' vocabulary choice. In his article, McCrostie (2007) highlights the benefits of keeping vocabulary notebooks in terms of promoting vocabulary acquisition and learner autonomy. However, he also claims that insufficient teacher guidance may hinder learners from gaining these benefits because in his study McCrostie (2007) observed that the participants of the study were too much dependent on the text book, favored nouns in their word choice and neglected other parts of speech, were not aware of word frequency and focused on very low frequency vocabulary which they probably will not need to know, did not give importance to collocations, and finally made serious mistakes in their example sentence. Therefore, McCrostie (2007) proposes that in order to maximize the use of vocabulary notebooks, teachers should give sufficient guidance to their learners.

A more recent study was conducted by Walters and Bozkurt (2009). A group of university students from Turkey underwent a four-week vocabulary notebook program; whereas, another control group followed the same curriculum without keeping a

vocabulary notebook. At the end of the study, it was observed that, the experimental group was more successful in the achievement tests applied on them and was more successful in using the target vocabulary in free writing activities. Unfortunately, they did not show any positive impacts on increasing learner autonomy. Therefore, Walters and Bozkurt (2009) conclude that keeping vocabulary notebooks can be an effective way in vocabulary learning but may not result in a desired amount of positive impact on learner autonomy.

As it is seen, provided that the teacher gives the necessary feedback and guidance, keeping a vocabulary notebook contributes to learners' vocabulary learning rather effectively. Learners can write different features of words and example sentences related to those words. It is a good tool for revision of vocabulary and self-testing, and can create a basis for further dictionary work (Jones & Fortescue, 1991). However, Takač (2008) claims that keeping a vocabulary notebook is a neglected strategy although it is worth the effort. She attributes this neglect to the fact that keeping a "well-organized" vocabulary notebook is "time-consuming and strenuous". Moreover, learners "need to be encouraged not to give up" and they should be convinced that keeping a vocabulary notebook is "useful" for them (Takač, 2008: 82). On part of the usage of vocabulary notebooks, it may also be difficult to access a desired word because there is usually a chronological order rather than an alphabetical order even if some learners tend to allocate specific pages to each letter (Jones & Fortescue, 1991). In addition, the recent developments in technology and the growing interest in computer-assisted learning necessitates teachers to modernize their teaching tools and it introduces valuable means of teaching such as computer programs designed for language learning, e-portfolios, weblogs, or e-learning platforms. The next section will focus on computer-assisted language learning; in particular, on e-portfolios and e-learning platforms such as www.dokeos.com.

2.4. COMPUTER-ASSISTED LANGUAGE LEARNING

In each era scholars have tried to improve their methodology and techniques in order to reach a more beneficial system in language teaching and in order to maximize the effectiveness of language instruction. Using technology in the language classroom is

one of these efforts. The first examples of using technology in the language classroom are probably tape-recorders that became the most important language teaching materials in the period of audio-lingual method; headphones and microphones used in the famous language laboratories to follow them (Warshauer & Meskill, 2000). The first attempts to integrate computers into the language classroom dates back to the 1960's (Chapelle, 2001). However, computers were not developed and not available in many learning environments so it was not until the 1980's when the idea of using computers in the language classroom was accepted by more practitioners of the field. Towards the 1990's, together with the communicative approach, as computers became more manageable, tape-recorders left their place to computers and the necessary software; such as, text construction software, concordance software and multimedia simulation software (Warshauer & Meskill, 2000). However, the year 1992 was an important cornerstone because it is the year people started to learn about the Internet, the most important tool that opened very broad horizons demolishing all the boarders of our small worlds.

Together with the Internet, computers became powerful tools; in that, they started to give the learner the facility to explore and also provide opportunities of interaction (Warshauer & Meskill, 2000). Today computers are multi-functional. Using a computer, individuals can produce written work, manage numbers, communicate, and gain access to any information they need, or store their products for future need (Brett & Motteram, 2000). Employing computers and the Internet as learning tools makes change and changes are motivating (Jarwis & Szymczyk, 2009). It helps the teacher in "doing something familiar in an unfamiliar way" (Jones & Fortescue, 1991: 29). Computers and the Internet are available to learners any hour, flexible in terms of user preference and motivating (Forsyth, 2001; Jones & Fortescue, 1991). They also promote positive attitudes to learning and in some situations it is possible to provide immediate feedback on students' language productions (Fortsyth, 2001). Finally, using the Internet facilitates collaborative-language learning, which enhances autonomy and critical thinking ability in learners (Thadphoothon, 2002)

Together with the use of computers in the language classroom, a new area of study emerged: Computer-Assisted Language Learning (CALL). CALL is a term to describe the use of computers as part of a language course (Hardisty & Windeatt, 1989). At the beginning it only covered software which was written for the purpose of facilitating different language learning activities and skills and which only could be installed on very simple computers (Hardisty & Windeatt, 1989). Today with the vast development in computer technology and the use of the Internet, CALL includes sophisticated elements such as virtual learning environments, distant learning platforms, corpora and concordance databases, computer-mediated communication facilities, different web applications, web-blogs, social networks, wikis, e-portfolios, or web-sites (http://www.wikipedia.org.en).

In this brief introduction, the short history of technology use in the language classroom, in particular, the use of computers and the Internet, has been reviewed. The term CALL has been defined and what kind of applications CALL comprises are presented. In the following section, first, studies on the relation between computers and language learning; then, studies on the relation between computers and vocabulary learning will be reviewed. Finally, e-portfolio studies and the introduction of www.dokeos.com , which has been the e-learning platform used in this study, will be presented.

2.4.1. Computers and Language Learning

As mentioned in section 2.4., computers have been part of language instruction by the end of the 1980's. Certain software material compatible with the technological features of computers of those years gained considerable interest. CALL manuals such as the one prepared by Hardisty and Windeatt (1989) were published so that enthusiastic users of language learning software could use them as guides to their innovative language instruction practices. These software packages included programs that involved activities such as gap-filling, matching, multiple choice, sequencing, deletion, word-processing, forming databases, communication, or simulation.

The computer technology has developed in a great pace and together with the invention of the Internet computers have not only become stronger but they also have become a necessity in the language classroom (Timuçin, 2006). Some of the benefits of web-based learning; i.e. education through computers and the Internet, are: it has become a valuable means to gain access to any kind of information, it is flexible in terms of time and learner preferences, it encourages the learners to control their own learning, it promotes learners to become active learners rather than to remain passive recipients, it reduces the fear of making mistakes and finally it provides learners with up-to date authentic materials (Pekel, 2002; Thadphoothon, 2002).

All these positive attributes have made computer-based language learning means of language instruction in fields such as writing (Arslan & Şahin-Kızıl, 2010; Bayram, 2006; Erice, 2008; Hirvela, 2005; Slaouti, 2000; Stapleton & Radia, 2009; Sullivan & Pratt, 2005), reading (Dreyer & Nel, 2003; Hirvela, 2005), vocabulary (Allum, 2004; Al-Seghayer, 2001; Arkın, 2003; Bowles, 2004; Constantinescu, 2007; Friedman, 2009; Horst, Cobb & Nicolae., 2005; Loucky, 2003, 2006; Pelletreau, 2006; Segler et al., 2002), grammar (Jarvis & Szymczyk, 2009; Tribble, 2000), cultural studies (Thorne &Thorne, 2000), or even speaking (Motteram, 2000).

Apart from language areas, these studies also vary in the type of web-based elements used in them. The most frequently used web-based elements in language studies are web-blogs (Arslan & Şahin-Kızıl, 2010; Wu, 2001); databases (Friedman, 2009; Horst et al., 2005), e-dictionaries and glosses (Al-Seghayer, 2001; Constantinescu, 2007; Loucky, 2003, 2006; Bowles, 2004), concordances (Arkın, 2003; Tribble, 2000), or e-portfolios (Baturay & Daloğlu, 2010; Erice, 2008; Lorenzo & Ittelson, 2005).

CALL does not have a very long history but despite this fact, it has become a widely used tool in language instruction in different language areas. Among these language areas, vocabulary seems to be one of the areas which are most compatible with computer-assisted learning. In terms of web-based elements used in learning; on the other hand, glosses and e-portfolios seem to be the most favored means of learning. The next section will examine the role of computer use in vocabulary learning.

2.4.2. Computers and Vocabulary Learning

As all the other fields of language learning, vocabulary, too, has been the interest and part of computer assisted language learning applications. According to Read (2004b), although it is possible to learn vocabulary through communicative activities and extensive reading, and tasks enhance vocabulary retention, "computers have substantial impact on vocabulary studies" (Read, 2004b: 156). Allum (2004) has similar views to Read (2004b); in that, he claims that CALL is an effective way of introducing vocabulary and works well for a long period even if students are not motivated and are closely integrated with traditional class-work.

As far as vocabulary is concerned, it is not unexpected that many studies are conducted on glossing, using e-dictionaries and concordances. It is also very natural in this sense that studies on vocabulary learning are usually linked with reading skills. One of these studies was conducted by Bowles (2004). In this study, the results of traditional and computer assisted glossing were compared in terms of amount of target vocabulary noticed by learners, text comprehension, and the acquisition of target vocabulary. Although Bowles's (2004) study did not prove that computer-assisted glossing was superior to traditional glossing, the researcher insists that practitioners should not overlook the potential benefits of computer-based instruction and that with carefully planned computer-assisted applications it is possible to achieve better results.

Another study conducted in this area is reported by Constantinescu (2002), who used a number of multi-media software in vocabulary teaching and reading comprehension activities. Constantinescu's (2002) multi-media tools included multi-media enhanced dictionaries, multi-media glosses, two word acquisition programs called ALEXIA and CAVOCA, and a concordance software. Constantinescu (2002) claims that all these elements proved to be successful in his teaching environment and advises that teachers should be aware of the existence of these tools, introduce them to their students, be able to evaluate them, and keep up with the current technology.

The effect of multi-media glossing was also the researched by Al-Seghayer (2001). Different from the previously mentioned studies, this study compared three

different glossing options in reading activities in terms of their effects on target vocabulary acquisition. These three different image modalities used in multi-media glossing while presenting reading materials were text, picture and video. In other words, the researcher provided each of the three groups of participants with a different type of multi-media glossing so when the first group clicked on the word they wanted to learn, they were provided with a text that explained the word, while in the other two groups the learners were provided with a picture and a video, respectively. The study showed that the group which was provided with a video while glossing for unknown word was the most successful group.

The use of computerized dictionaries and their effects on learning vocabulary have been another area of research. Loucky (2003) investigated the effects of using computerized bilingual dictionaries vs. traditional dictionaries, in enhancing English vocabulary learning in Japanese colleges. At the end of the study it was observed that computerized dictionaries were cognitively more efficient, provided learners with rapid access to unknown vocabulary, speeded up lexical processing and as a result of these, the participants learnt target vocabulary more rapidly.

In another study Loucky (2006) transferred 40 VLS under a depth of process scale in order to find ways of teaching vocabulary either in traditional ways or in a CALL environment. He made use of multi-media dictionaries, translations software and web-sites. At the end of the study it is concluded that the more students make use of VLS, the better they learn vocabulary and this was more successful in CALL environments, especially for adult learners; in that, computer use was more motivating than traditional methods of vocabulary learning.

A closely related element to vocabulary is concordance. Tribble (2000) claims online concordances are valuable tools in teaching grammar and vocabulary. They are effective in the sense that it takes little time to prepare teaching materials out of them, they provide authentic contextual instances of use, they let students develop memorable rules, and they can be kept as reference.

Using databases or forming databases are other innovative techniques used in vocabulary learning. Both using databases and forming databases require the use of multimedia technology. Depending on their study on 60 mixed nationality university students studying at a Canadian university, Horst et al. (2005) believe that integrating computer technology in vocabulary learning is promising. In their study the researchers made use of an online vocabulary learning tool (www.lextutor.ca) which included concordance, dictionary, cloze-builder and a database together with a self-testing application. At the end of the study, the researchers concluded that online applications were not only source but also tools for learning vocabulary. Moreover, deeper learning was encouraged, so the outcome was successful.

A more recent study on databases is from Friedman (2009). In this study Japanese students used the web as a corpus to investigate specific contexts and collocations. Following this, the participants created a communal dictionary made of lexis and example sentences from authentic websites adding their own sentences to them. As a next phase, this dictionary was used in peer teaching. In their entries students were also asked to pay attention to lexical forms and functions of the words. Friedman (2009) concludes that, at the end of the study, the participants did not only benefit from an effective vocabulary learning tool, but also from a tool that enhanced their autonomy and collective study abilities.

As it is seen, multi-media web tools have been used in different contexts in order to foster vocabulary learning. There have been studies on multi-media glossing, multi-media dictionaries, concordances, authentic web-sites, learner-prepared or web-based databases, and multi-functional online vocabulary learning tools. However, no study is reported on e-portfolios in terms of vocabulary learning. For this reason, this study on vocabulary learning through e-portfolios is unique. The following section will examine studies on e-portfolios in language learning both in the global and local context.

2.4.3. E-portfolios in Language Learning

Electronic portfolios (e-portfolios) take their roots from paper-based portfolios, which can be described as collections of learning materials in order to show a learner's

learning journey over time and to demonstrate the learner's ability and progress during the learning process. The idea of e-portfolios was mainly raised due to difficulties in terms of the storage and duplication of paper-based portfolios and the facilities the developing computer technology brought to our lives (Montgomery & Wiley, 2004).

Very simply, e-portfolios are collections of artifacts presented in an electronic form (Montgomery & Wiley, 2004). In other words, they are the electronic versions of paper-based portfolios, created in a computer environment (Butler, 2006). Different from paper-based portfolios, e-portfolios do not only include texts but also graphic, audio and video materials as well. In this line, Abrami and Barret (2005) describe e-portfolios as "digital containers capable of storing visual and auditory content including text, images, video and sound designed to support a variety of pedagogical processes and assessment purposes" (para. 1). E-portfolios are compilations of text and multi-media resource used as tools for assessment, learning and reflection (http://esoltechnology.com).

Individuals can generate their e-portfolios either by themselves and store them on a space they have available; for example, web pages developed by learners; or the e-portfolio application can be initiated by teachers or institutions using professional database environments provided by the educational institution either by establishing their own server or purchasing an e-portfolio service (Gibson & Barrett, 2003; Barrett, 2006). E-portfolios can be implemented on different web sources and devices such as web 2.0 services, social sharing cites, blogs, different platforms to host e-portfolios built on websites, wikis, or social networks (http://e-language.wikispace.com) or they can simply be prepared on computers and stored on CD-ROMs or DVDs (Lorenzo & Ittelson, 2005).

Dating back to the beginning of 1990's, e-portfolios have become instruments of learning and assessment (Barrett, 2010). Since learners are expected to collect the necessary artifacts, select the best materials that will contribute to their learning, organize their portfolio in the most efficacious order, reflect upon their choice and their learning process, and present their understanding and intellectual growth during the e-portfolio process; at the end of the e-portfolio application it is expected that learners

take control of their learning, develop self-awareness, indulge in an interactive and reflective learning process, and evaluate their learning ability (Ali, 2005; Barrett, 2006; Hartnell-Yong & Morris, 2007). In addition to these, as Lorenzo and Ittelson (2005) put forth creating e-portfolios enables learners to evaluate their skills, their strengths and weaknesses, an act which gives them the opportunity to enhance and direct their learning so that they can attain their academic and career goals.

E-portfolios have positive effects on learners' attitudes towards their studies and result in strong motivational and affective outcomes. They give learners the opportunity to explore learning material from a personal perspective, increase their interest in the learning material and provide them with a sense of ownership and personal commitment (Abrami & Barrett, 2005). They "embody the student-centered view of teaching" (Kinnard, 2007: 63), which leads to the shifting of focus from the instructor to the learner (Acosta & Liu, 2006). They are also effective tools for "knowledge creation" frameworks for "self-assessment" and means to construct "values" (Carmen & Christie, 2006: 33).

Developing an e-portfolio can lead to "enormous growth" (Hartnell-Yong & Morris, 2007: 40); in that, they reveal learners' depth of understanding and their intellectual growth, present a holistic view of achievement, help learners in developing analytic skills and ability to synthesize their knowledge, and lead them to become critical thinkers (Hartnell-Yong & Morris, 2007; Lorenzo & Ittelson, 2005)

Apart from these features, e-portfolios help learners to improve their multi-media skills. Since constructing an e-portfolio requires learners to collect and organize artifacts in many different media types, the portfolio owners need to link their learning process with their understanding in technology. Moreover, by using the Internet, e-portfolios also enable learners to address great audiences, learning extends beyond school walls and learners also develop a social awareness on their learning journey (Acosta & Liu, 2006).

E-portfolios have a great number of advantages for learners both in their main-stream education and language education. In terms of practicality, they are compact;

easy to store; inexpensive easy to duplicate; flexible; if stored on appropriate utilities, portable; easy to distribute and share; they include a range of tools to individualize learners' work; they are easy to upgrade; accessible; and easy to back-up. Works created on e-portfolios are re-playable, examinable, revisable and distributable (Barrett, 2006; Foster, Walker & Song, 2007; Hartnell-Yong & Morris, 2007; Jones & Shelton, 2006; Kinnard, 2007; Zubizarreta, 2009).

In terms of educational development, they contribute to the acquisition of basic skills and development of higher thinking abilities, the improvement of cross-curricular competence, and the building of positive attitudes towards the use of technology in learning (Abrami & Barrett, 2006). By adopting e-portfolios in their learning process, learners have the opportunity to self-regulate and monitor their own learning, which will lead them to develop metacognitive awareness and life-long learning abilities (Abrami & Barrett, 2006). E-portfolios foster active learning; they motivate students; they enable both the teacher and peers to give active feedback and opportunities to discuss learner performance; and they heighten interactivity in learning (Zubizarreta, 2009).

Like all applications, e-portfolios, too, have some drawbacks; namely, they require learners and teachers to adopt technical skills, at least, to a certain extent; from time to time technical support is needed; there might be problems in gaining access to some software, equipment, or Internet servers; viewers of the portfolio may lack some technical facilities; and finally Internet security may become an important issue (Hartnell-Yong & Morris, 2007, Jones & Shelton, 2006; Kinnard, 2007). However, regarding all the positive impacts and with commitment to overcome any difficulty, it is possible to resolve any problematic issue.

Beginning from 2000, e-portfolios have been used as instruction and evaluation tools in different universities; so that, a number of them have set their own electronic portfolio systems (Barret, 2006b). Together with this development a number of studies have been conducted in the global and local context. Hung and Huang (2008), for example, investigated student perceptions on e-portfolio based learning and assessment. The study showed that the participants developed positive attitudes towards e-portfolio based learning and that the application created metacognitive and affective awareness,

and a multi-dimensional perspective on evaluation among the participants. However, the participants also found the e-portfolio application time-consuming and felt uncertainty in issues regarding peer feedback and the grading procedure.

In another article, Sherman (2006) offers eleven new ways in which e-portfolios can support teaching. Sherman (2006) proposes that it is possible to use e-portfolios in creating meaningful context, goal-setting, practicing with purpose, providing examples and non-examples, assessment, reflection, and communication. They can also be planning and management tools for the instructor, organization tools for learners, and tools for keeping historical records. In line with Sherman's (2006) proposition, Barret and Garrett (2009) have conducted a successful study on using e-portfolios as digital archives. These digital archives formed by learners have proved themselves to be useful in developing personal histories and reflective narratives as an outcome of the study.

Blackburn and Hakel (2006), emphasize the importance of goal setting. According to them, e-portfolios should include goal-setting elements. This will lead to a need for feedback, which will force learners to monitor their progress, reflect upon their work, relate their work to their goals, and evaluate the strategies they used.

Stevenson (2006) used web-blogs in his study on e-portfolios and in this study it was seen that learners were intimidated by the e-portfolio application regarding the issue of feedback. Most students felt discouraged due to peer feedback or prevented themselves from giving feedback to their peers. In order to overcome these kinds of problems, Stevenson (2006) proposes that sending artifacts and giving feedback anonymously aids to overcome these problems. He also claims that this technique may increase peer-assessment, critical thinking and collaboration in e-portfolio applications.

Doig, Illsley, McLuckie and Parsons (2006), report their study on a group of university students at the University of Dundee. In this study, an e-portfolio application was implemented in writing classes. The results supported the fact that e-portfolios enhanced the development of reflective and autonomous learners. It was also observed that the participants had a huge potential of collecting and recording evidences of their

achievements. The only issue to be developed, however, was the learners needed training in giving account of reflective thoughts.

Another descriptive study on e-portfolio comes from Walz (2006). Based on his observations following an e-portfolio study conducted in the University of California, Walz (2006) lists five functions of e-portfolios. These functions are storage, information management, drawing connections, communication and development (Walz, 2006: 194).

Hickerson and Preston (2006), on the other hand, emphasize the importance of teacher roles in e-portfolio applications. They, especially, give place to the necessity of e-portfolios being carefully designed and having clear learning goals. Provided that e-portfolios are carefully designed with clear learning goals, Hickerson and Preston (2006) claim that students adapt to technology and recognize it as a useful academic tool.

In the local context, however, paper-based portfolios have been more in the center of interest than e-portfolios. There have been studies on the effectiveness of portfolio-based assessment in contrast to traditional assessment (Ekmekçi, 2006; Erdoğan, 2006; Sağlam, 2005). Some other studies focus on portfolios and their effects on skill building such as reading (Köse, 2006) or writing (Bayram, 2006; Yalçın, 2006). İşler‘s (2005) study investigated the effect of portfolios on the development of reading and vocabulary skills in connection with learner autonomy.

There have also been studies conducted on e-portfolio applications. Yaşar (2005), for example, investigated university preparatory class students’ attitudes towards e-portfolios as a method of alternative assessment. Yaşar (2005) found out that the participants’ attitudes towards e-portfolios were positive both before and after the application but was more positive after the application. Yaşar (2005) also claims that the e-portfolio application increased the participants’ computer literacy and their computer skills and that the learners were able to reflect on their learning more efficiently.

One study is on writing conducted by Erice (2008). Erice (2008) started an e-portfolio application in writing classes at Abant Izzet Baysal University,Turkey by the use of an e-learning platform called www.dokeos.com . This study suggests that, the e-portfolio application has proven to be successful, the use of computer technology has had positive impacts on the results of the study and e-portfolios could be integrated into the English teaching curriculum provided that the necessary conditions are maintained.

Koçoğlu (2008) examined how e-portfolios affected the perceptions of student-teachers' professional development. The participants reported that, at the end of the e-portfolio application they had been able to keep current with innovations in the digital world, use their e-portfolios as tools for job search, build a collection of materials that show their best work, find the opportunity to work collaboratively, and support their professional development.

Another recent study was conducted by Baturay and Daloğlu (2010). In their study Baturay and Daloğlu (2010) investigated the learning gains that were provided by the e-portfolio application and the perceptions of the participants' on the online course they were enrolled in. At the end of the study the participants reported that they benefitted and enjoyed the online course given. In addition, the e-portfolio application appeared as a practical alternative to standard tests, enabled learners to focus on real-life applications of language, improved the participants' problem-solving skills and creativity, and formed an initial step to become self-regulated learners.

In this section e-portfolios have been defined, their basic features have been presented, their advantages and disadvantages have been exhibited and finally, studies on e-portfolios both in the global and local contexts have been displayed. The next section will be a brief review of www.dokeos.com, the e-learning platform used in this study.

2.4.4. Dokeos

Dokeos is an on-line open source collaborative learning environment (Nagar, 2010). It was started in Belgium and is being widely used in many universities there, for example, the Ghent University. It is even used in some ministries in Belgium. Other

than Belgium, *Dokeos* is being used in 60 different countries (http://www.kineo.com/free-tools/dokeos-lms.html). In most institutions it is used for the instruction of medical courses. It is also used in companies since the most comprehensive version offers facilities like online video-conferencing and online presentations.

Dokeos mostly appears in contrastive studies where a number of e-learning platforms are being compared to each other (Aydın & Tirkeş, 2010; Guenaneche and& Radigales, 2008; Nagar, 2010; Özarslan, 2008). As mentioned before, this e-learning platform was also used as a means of an implementation of an e-portfolio application by Erice (2008). Due to the promising results of this study, and due to its user-friendly nature, *Dokeos* has also been chosen as an e-portfolio instrument in our study in order to investigate whether an e-portfolio implementation on vocabulary learning would contribute to our learners' strategy development and autonomy.

2.5. LEARNER AUTONOMY

The terms autonomy and autonomous learner have become the centre of interest in the recent decades. These two notions are also regarded as the outcome and desired result of strategy training and computer-based language learning applications. For these reasons this section will discuss learner autonomy and autonomous learners, present a short history of autonomy in language learning, put forth the importance of developing learner autonomy, examine the relationships between learner strategies and learner autonomy, and e-portfolio applications and learner autonomy, and finally review studies conducted on fostering learner autonomy both in the global and local context.

2.5.1. Learner Autonomy: Descriptions, History and Related Issues

Dating back to Holec's (1979) well-known work *Autonomy and Foreign Language Learning*, the term autonomy has been an issue of interest among scholars. Autonomy is simply defined as "the ability to take charge of one's own learning" (Holec, 1981, cited in Cotterall, 2008: 110). Taking charge of learning involves a responsibility for "determining what to learn", "defining the content and progress of

learning", "selecting the appropriate method and techniques needed for learning", "monitoring the learning process", and "evaluating the result of the act of learning" (Cotterall, 2008: 110-111).

Similarly, Dickinson (1987: 9) describes autonomy as the degree of the learners' taking responsibility for his or her learning and names mainly five types of autonomy which are listed as "semi-autonomy", "autonomy", "individualized instruction", "self-directed learning", and "self-access learning". According to Dickinson (1987), learners are capable of making all their decisions related to their learning such as the methodology to be implemented, the content to be studied, the strategies to be used, the timing and location of learning, or even the tasks to be completed. Benson (2001, cited in Cotterall, 2008: 111) shares Dickinson's (1987) ideas on learner autonomy. He argues that learners should not only decide on how and when to learn but also what and where to learn (Cotterall, 2008).

According to Little (1991: 3), "autonomy is a capacity for detachment, critical reflection, decision making and independent action". However, opposing Dickinson (1987) and Benson (2001), Little (1991) argues that autonomy does not mean learners are completely free, the control is completely on the learners, learners are isolated from learning environments, or learners learn by themselves using their own resources. On the contrary, learners are guided and facilitated by teachers, their limits of freedom are determined by their teachers, and social relations and collaboration are essential components of the learning environment.

According to Wenden (1991), autonomous learners are willing to take responsibility for their learning and are aware that they have an important role in their learning process. They have insight of their learning styles and strategies. Autonomous learners are "self-confident" and also can "self-direct themselves" (Wenden, 1991: 56) so that they can manage their own learning. They take an "active approach" to learning and are "willing to take risks" (Wenden, 1991: 57). In addition to these they are "good guessers" and are capable of developing the target language into a reference system. In most cases they are willing to revise and have a "tolerant approach" towards language learning Ommagio (1978, cited in Wenden, 1991: 41-42).

Autonomy, which was initially an issue of adult education, has become an indispensible component of education and also language education. It has also been the main aim of many learner-based methodologies and approaches that have emerged in the area of language teaching starting from the 1980's and 1990's (Finch, 2002). It is thought that the aim of education should be to prepare learners to be able to take active part in life and gain the necessary skill for this ability. Thus, the individual should have the right to make his or her decisions and choices in learning. If they are able to make their own choices and take their own responsibilities, their learning will be more "focused", "purposeful", and "effective in short-term and long-term memory" (Little, 1991: 8) which will encourage learners to become more autonomous (Dickinson, 1987; Finch, 2002; Wenden, 1991).

Chan (2007) argues that teachers are responsible for teaching their students how to learn and for training them to become more active, reflective and critical. Learners should be involved in the decision making progress and be methodical, disciplined, logical, self-aware, motivated, responsible, creative and self-confident; whereas, teachers should remain as facilitators, counselors, observers and consultants.

According to Benson (2001, cited in Cotterall, 2008) teachers should accept that their students are of mixed abilities and backgrounds. They have different motivations, cultures, beliefs, strategies, styles and goals. In addition to these, they are of different age, aptitude, gender and personality. Therefore, they respond differently to learning tasks and it is impossible to develop a unique teaching approach which addresses all students. For this reason it is essential that attention should be given to individual learners and autonomy should be fostered by focusing on learning strategies.

Similarly, Wenden and Rubin (1987) state that, the aim of developing learning strategies in learners is to help them become autonomous learners. The necessary attention should be given to learners so that they gain the awareness that learning does not only take place in the classroom but also continues to take place when they are on their own. This is accomplished through appropriate strategy training.

In this section the term autonomy has been defined depending on the views of the scholars of the field. In addition, a short review of the history of autonomy and the importance of autonomy are presented. Due to the strong relationship between learning strategies and learner autonomy, the following section will discuss this notion.

2.5.2. Learner Strategies and Learner Autonomy

It is widely accepted that there is a relationship between learning strategies and autonomy. Strategies support autonomy and they help learners understand the nature of language and what is essential in language learning. They may also help plan the content and determine the techniques to be used. Strategies enhance learners' evaluation skills both on the leaning process and themselves (Wenden & Rubin, 1987). Wenden and Rubin (1987) also point out that the goal of strategy research is to design activities that not only aid learners to become efficient learners but also to become "capable of self-learning" (Wenden & Rubin, 1987: 8). In addition to these, Wenden and Rubin (1987: 12-13) claim that strategy training is essential but it has to be accompanied by an "internal change of consciousness". Learners should become "critically reflective" on the content of their learning and they must possess a clear vision of what language learning means, what it "entails" and the "purpose" of language learning.

Oxford (2002: 58), believes "learning strategies and their associated tactics…. are crucial because they concretely help independent learners become autonomous". Taking responsibility over one's own learning involves the abilities of deciding and using learner strategies and related tactics which are relevant to the learning tasks and goals. Strategies require learners to be more active so strategy users are not passive receptors. Rather than that, they become participants of the learning process and have influence on the learning outcome (Oxford, 2002). Using strategies leads to taking responsibilities for learning. For these reasons, strategy training is essential; in that, the use of learning strategies can promote learner autonomy and autonomy is important for learning. Good learners are aware of the strategies they use for their learning, they judge the effectiveness of the strategies, they use and they decide on improving their strategy use and choice; and as a result of these abilities, they take steps to become autonomous learners (Oxford, 2002).

Maniani (1991) claims the level of autonomy should be in the middle of a continuum from complete independence to complete dependence on the teacher. That is, learners should neither be completely independent nor completely dependent on their teachers. Maniani (1991) also puts forth that it is not important that learners use or know some specific learning strategies. Instead it is essential that they possess awareness in when, where, why a strategy is used and they are able to "experiment the results and impacts of their strategy use" on their learning (p. 18). According to Maniani (1991) if learners manage to transfer their strategy knowledge in other fields of their learning, they have become autonomous.

According to Cohen (2003) guiding learners in terms of strategy use is useful for the promotion of learner autonomy. In order to find their way in the path of autonomy, they should be trained on strategies. Explicit strategy training will make learners aware of their strengths and weaknesses so that they can decide on improving themselves. Yin (2008) shares Cohen's (1998) views and states that learner autonomy is a matter of "conscious intention" (Cohen's, 1998: 1). Similar to Cohen (1998), Yin (2008) believes autonomy may be promoted through strategy-based instruction. Strategy-based instruction helps learners understand their learning process and also control this process. If learners are able to understand and control their learning process, they take more responsibilities for their learning, thus they become more autonomous.

Yin (2008) also mentions two aspects of learner autonomy. One of these aspects is, autonomy raises awareness in learners about their strengths and weaknesses and also their learning styles. The second aspect is, it enables learners to further develop strategies, techniques and material in order to promote individual "self- development" (Yin, 2008: 2).

Skehan (1998: 261) emphasizes the importance of learners' developing questioning attitudes and their learning how to become more "self-aware learners". Skehan (1998: 262) claims the "Process Syllabus" is the best type of syllabus which will promote learner autonomy. Process Syllabus is a syllabus where teachers have knowledge about each of their learners and help each of them to make better decisions and induce them to take more responsibilities so that these learners are able to clarify

their own learning aim and can make their own pedagogical decisions. Skehan (1998) also states that in order to have a process syllabus work, learners should already have developed metacognitive strategies; in that, these strategies promote learner autonomy. Learners who are equipped with learning strategies are able to become autonomous.

Kazanka (2007) states it is impossible to expect learners to become autonomous right from the beginning stages of learning. Learner autonomy needs to be fostered and this can be done through the "apprenticeship of learner strategies" (Kazanka, 2007: 5). Teacher should share the knowledge and skills with their learners and they should instruct their learners on strategies explicitly. Kazanka (2007) believes everybody has a capacity of autonomy and teachers should lead their learners to autonomy through strategy training.

As it is seen, learning strategies are accepted to have an indispensible role in the development of learner autonomy. Another element that is claimed to enable learners and teacher develop learner autonomy is the use of technology in the learning environment. The next section will focus on the relationship between computer technology use and learner autonomy.

2.5.3. Computer Technology and Learner Autonomy

Autonomy focuses on a learner-centered approach to learning and fostering autonomy in learners will encourage them to think critically of their learning (Schwienhorst, 2008). According to Schwienhorst (2008: 12), three approaches are essential in the development of learner autonomy, which are "critical reflection and linguistic and metalinguistic awareness"; "interaction and collaboration"; and "experimentation". Schwienhorst (2008) believes that gaining metalinguistic and linguistic awareness is important and if learners have the necessary tools learners will attain learner autonomy. These tools are applications such as "word processors" or "online concordances"; and e-learning environments that can provide learners with "interaction with authentic material", "feedback", "collaboration", and "meaningful communication" (Schwienhorst, 2008: 18-22). Both of these tools; namely, word learning applications and e-learning environments are components of CALL. Being able

to use these tools, learners will search for the most relevant materials for their learning, an act which will enhance their level of autonomy.

Schmenk (2005: 112) states that, CALL provides the necessary "grounds for attempts to globalize autonomy". Gonzales and St. Louis (2008) share similar views with Schmenk (2005) and point out that in CALL applications learners have control over their leaning. It is also possible to foster collaborative learning through the Internet. Students develop the necessary skills to work with technological tools and the use of technology can promote autonomy.

Shotlekov (n. d.: 1) defines the role of learner autonomy in education as "autonomy encourages people not to wait for education to happen but instead make it happen to them". According to Shotlekov (n. d.) information and computer technologies have the potential to act as a tool that will lead to learner autonomy. The use of computer technology provides "learning for anyone", "at any time", "at any place" because it is available in terms of "software", "hardware", and "user friendliness" (Shotlekov, n. d: 1-2). It is not necessary to be experts in computer technology; moreover, it fosters independent learning and supports for different learning styles. Learner autonomy is usually associated with terms like "life -long learning", "experimental learning", "learning to learn", "self-instruction", "guided self-learning", "collaborative learning", which are also strongly associated with computer assisted learning (Shotlekov, n. d: 11)

Web–based learning can promote independent learning by giving learners the means to access information flexibly. The nature of the Internet enables learners to increase self-esteem. Learners can control their learning and this control increases motivation. Learners seek for the necessary information actively instead of being passive learners (Pekel, 2002).

A number of studies support the close relationship between computer enhanced teaching and learner autonomy. Marcià, Ramos, Cervera and Fuetes (2004) examined whether they could develop learner autonomy through a virtual English for Academic Purposes (EAP) course at the Polytechnic University of Catalunia. In the study students

went through an EAP course on a virtual environment in which tasks, activities and debates were conducted through e-mail messages and board messages sent to the classroom forum. Students were able to perform wide range of activities related to "self-directed learning" (Marcià et al.: 1). At the end of the study it was observed that the participants developed critical views on their learning practices and they showed behavior and skills related to learner autonomy.

Kaur, Singh and Embi (2007) examined learner autonomy development via participating in an online distance-learning program. 30 university students from Indonesia took part in an online distance learning program and the researchers examined to what extent participating in this program affected the learners' autonomy development. The study suggested positive results and the learners' attitudes to the application were promising. However, teachers that were enrolled in the study proved not to be ready enough to implement computer-mediated education in their own teaching practices.

In another study, Figura and Jarwis (2007) investigated how and to what extent learning strategies are used and autonomy is developed through computer-based materials. Participants showed positive attitude towards computer-based material and language learning towards computer-based material. It was observed that learners mostly used cognitive strategies and developed metacognitive awareness in their learning process. Participants also showed reasonable levels of autonomy and a strong belief that computer-based learning can contribute to their language learning studies.

Kessler (2009) investigated the process of autonomy development on a group of non-native speaker English teacher candidates from Mexico during a sixteen-week online course and wiki creation activity. Kessler (2009) examined the attempts of these candidate teachers' correcting their grammar errors in a long-term collaborative task and identify their autonomous learning activity. Kessler (2009) claims benefits of technology in language learning as creation of opportunities to use language in an authentic context and encouragement of learners to reach autonomy. The study showed that students were willing to collaborate in autonomous learning environments and if they were given the opportunity it was possible to attain autonomy.

Other studies on learner autonomy focus on the impact of other variables such as age, classroom tasks, and applications on learner autonomy. For example Naeeini and Riazi (2011) compared different views of learners about autonomy. They also examined the role of age, marital status and occupational status on learners' attitudes towards autonomy. Their study suggested that age had no impact on learners' attitude towards autonomy but marital status and occupational status did; in that, single learners and learner who had occupations tended to be more autonomous.

Chuk (2004: 1) used classroom activities designed to encourage "conscious reflection" and examined their impact on learner autonomy. Chuk (2004: 1) names this technique the "Exploratory Practice Way". At the end of the study Chuk (2004) observed that learners developed metacognitive awareness, learner awareness, language awareness, learning process awareness, social awareness and learner autonomy.

Finally, Nakayama (2005) examined how paperback portfolios influence learner autonomy. Nakayama claims one advantage of portfolios is they develop learner autonomy. In this study a group of high school students were asked to keep a learning portfolio as a fulfillment of their English course. At the end of the study Nakayama (2005) observed that most students gave positive reactions to the portfolio application and took charge of their learning actively and responsibly.

Learner autonomy has also been an issue of interest in the local level. The next section will go through studies conducted on learner autonomy in Turkey.

2.5.4. Learner Autonomy Studies in Turkey

Although the term learner autonomy is relatively a new matter in our country, there have been a number of studies conducted on this domain at the university level. To begin with, Koçak (2003) investigated whether learners were ready for autonomous language learning in terms of their motivational level, use of metacognitive strategies, development of learner responsibility, and practice of English outside the classroom environment. At the end of the study, the participants revealed high level of motivation as they tended to use some metacognitive strategies; however, teachers showed more responsibility toward tasks, and learners spent little time for English outside the

classroom. The study also suggested that female and elementary level learners were more motivated towards language learning and used more metacognitive strategies. Intermediate level participants, on the other hand, were more involved in language learning activities outside the classroom. Depending on these findings Koçak (2003) argues that two points should be developed to enhance the readiness level of learners; namely, training learners for autonomy and curriculum change.

In a similar study Yıldırım (2008) tried to identify the readiness level of autonomy of a group of university students and also investigated their perceptions of teacher and learner responsibility together with the frequency of autonomous language learning activities the participants employed throughout the study. At the end of the study it was observed that the participants showed significant level of readiness for autonomy. They also revealed positive approach on their abilities to behave autonomously. In addition their perception of their ability in developing autonomy and responsibility was highly positive. In addition to these, the majority of participants were engaged in outside-classroom activities, which is also a sign of learner autonomy.

Another study was conducted by Balçıkanlı (2008). In this study two groups of participants, one of them being an experimental group took place. The experimental group was instructed on autonomy implementation for 12 weeks and showed more autonomous behavior as a result of the instruction. Balçıkanlı (2008) states that to improve autonomy in our teaching environments and particularly at universities, syllabus and assessment models of universities should be redesigned with the principles of autonomy, course books chosen in universities should be assessed under the light of learner autonomy, if needed instructors in universities should go through in-service training, and finally self-access rooms should be provided for learners.

In a more recent study Demirtaş and Sert (2010) examined the extent of learner-centered activities to improve autonomy and the level of autonomy perception of learners at a private university in Ankara. The results of the study revealed that learner-centered activities were not practiced effectively and the levels of autonomy skills of the participants were not sufficient to take responsibility on their own learning. Therefore

the researchers conclude that it is necessary to develop a curriculum which accommodates autonomous learning skills.

Finally, Yumuk (2010) investigated how an Internet-based search program encouraged learners to become more autonomous. The study also aimed to encourage learners to think critically on their learning and to question their teacher-dependent habits. At the end of the application it was observed that the participants changed their view of learning on behalf of promoting learner autonomy. The participants also accepted that learning required more responsibility from learners, gained a more meaningful view towards learning, and developed ownership on their learning process.

2.6. CONCLUSION

Vocabulary learning is a complicated issue; in that, it entails more than knowing the meaning of words. It has also been part of language instruction throughout all methodologies and approaches but in different levels of importance. There have been different implementations, views, and techniques used in vocabulary learning. In addition, scholars have been discussing which application would be of greatest benefit and efficiency.

Closely related to vocabulary learning, a center issue has been the use of learner strategies. These strategies have been classified, categorized and elaborated in order to form different taxonomies. Leaner strategies specific to vocabulary learning have also been studied and discussed.

With the development of computer technology, computers and the Internet have become tools of language instruction. There is no doubt that this improvement improved the standards in language classrooms and it had great influence on different skill areas; in particular, in vocabulary learning. The development of computer technology has also brought a valuable educational tool in our classrooms; namely, the e-portfolio. As it is seen, e-portfolios have been used widely in different skill areas but in particular in writing and reading.

Finally, it is seen that both language learning strategy use and computer assisted language learning have positive impacts on the development of learner autonomy; which has become an indispensible element of learning both in general context and language learning context. Studies suggest that there is a growing interest in this notion and there is still much effort needed to improve this skill in our learners.

CHAPTER THREE
METHODOLOGY

3.1. INTRODUCTION

This chapter aims to provide a full account of the methodology used during the study. It provides information about the research design, the participants and the setting of the study, and the data collection instruments. The e-portfolio tasks given to participants constitute the last section of this chapter.

3.2. RESEARCH DESIGN

The study includes both qualitative and quantitative methods. The pre- and post-application questionnaires provide the quantitative data which were analyzed through the Statistical Package for the Social Sciences (SPSS) program. Researcher logs and interviews provide the qualitative data. The data were analyzed thematically.

The researcher's logs were kept from the beginning of forming the vocabulary e-portfolio course on the e-learning platform until the end of the study. The pre-application questionnaire was first piloted and then applied formally one month after schools started their academic year. Soon after the analysis of the questionnaires the e-portfolio project started. The post-application questionnaire and the interviews were conducted at the end of the e-portfolio application.

3.3 PARTICIPANTS

The participants in this study were 89 Anatolian High School 9th grade students. 55 students were 14 years old with the percentage of 61.8 and 34 of them were 15 years old with the percentage of 38.2.

In terms of gender 43 of the participants were girls and 46 of them were boys with the percentages of 48.3 and 51.7 respectively.

9th grade Anatolian High school students took 10 hours of English in a week. 30 of the participants were the researcher's students. The other 59 participants were from two other classes.

3.4 SETTING

The research setting was Mustafa Kaynak Anatolian High School. This school is located in Yenişehir, a relatively new neighborhood in Denizli. It has over 700 students, 180 of which are 9th grade students. In the academic year 2009-2010 there were six 9th grade classes; namely, 9A, 9B, 9C, 9D, 9E and 9F. The classes included in the research were 9A, 9B and 9D. The class 9E was included for the piloting of the questionnaire to be given at the beginning of the study.

3.5. DATA COLLECTION INSTRUMENTS

In order to provide data triangulation, different kinds of data collection instruments were used in the study. The data collection instruments in this study were the pre-and post-application questionnaires, researcher logs, the e-portfolio application and semi-structured interviews.

3.5.1. The Pre-application Questionnaire

The pre-application questionnaire aimed to gather demographic information about the students, their level of computer literacy and ways of internet access, their present vocabulary learning strategies and finally their level of autonomy. For this reason the questionnaire was composed of four sections. In order to minimize comprehension problems the questionnaire was given in the students' mother tongue, Turkish.

The first section included 6 items related to students' age, gender, their language experience, their opinions about their level of English, their general attitude towards English and the language areas they think they have difficulty in.

The second section included 16 items on the students' level of computer literacy and their access to the Internet. The questions were either with two choices, yes /no; or, 'choose the ones applicable to you' type question, where students gave more than one response. This section also included one open-ended question.

The third section included 41 Likert scale items on vocabulary learning strategies. The items selected for this section were taken from Takač's (2008) VOLSQUES (Vocabulary Learning Strategy Questionnaire for Elementary Students). This questionnaire is structured in line with Schmitt's (1997) Taxonomy of Vocabulary Learning Strategies and was formerly applied in several studies on vocabulary learning strategies on 12-15 year-old students. As the participants in this study were 14-15 years of age, the questionnaire seemed to be applicable for them, too. The original questionnaire includes 69 items and it was in 3-point Likert Scale. Since the questionnaire used in this study included 3 other sections, 41 of the items were selected and since the participants in this study were relatively a more homogeneous group and were older in age, a 5-point Likert scale was constructed.

The fourth section of the questionnaire included eleven 5-point Likert scale questions and ten multiple choice questions related to student autonomy. The original questionnaire was designed by Zhang and Li (2004) and used in a comparative study on the level of autonomy of Chinese students and western students. The same questionnaire was used by Dafei (2007) in a study which investigated the relationship between learner autonomy and English proficiency.

Since the last two sections were taken from previous studies of Croatian and Chinese scholars, they had to be translated and adapted to the Turkish context. The first drafts of the translation and adaptation were examined by a group of academicians in the Department of Foreign Language Education in Pamukkale University in order to obtain face validity. After the first examination a second draft was prepared and examined. Since the second draft was concluded to be valid, the piloting of the questionnaire was applied.

Before the questionnaire was applied formally, it was piloted in another class which was not included in the main study. After the piloting, the data were transferred into the SPSS program in order to measure the reliability coefficient of the third and fourth sections. The Cronbach Alpha coefficient for the third section was calculated as 0.82 and for the fourth section as 0.53.

The questionnaire used in the piloting included four extra questions which aimed to find out whether the time allocated was enough, whether there were any comprehension problems, and if there were any items the participants had difficulties with. According to the information gathered from this section, additional explanations were added and some questions were simplified.

After the necessary changes were made and the written consents (see Appendix 1) of the participants were taken, the formal version of the questionnaire (see Appendix 2) was applied to 89 students. Data collected from this application were transferred to the SPSS program. The Cronbach Alpha coefficients for the third and fourth sections of the questionnaire were calculated as 0.91 and 0.60, respectively.

3.5.2. The E-portfolio Environment

Students conducted L2 tasks related to practicing vocabulary. The vocabulary studied was in line with their present curriculum. The tasks were connected to the subject matter studied in the participants' regular English class, in particular to the vocabulary studied in each unit. The participants' artifacts were stored in an e-learning platform called http://campus.dokeos.com .

Dokeos (http://campus.dokeos.com) is an open source e-learning and course management tool which can be used to communicate with your students in any course you are giving as a teacher. This platform has been translated into 34 languages till now and it is mostly used for blended learning, in which face to face and online education are mixed. This platform can also be used for online courses since it has some features enabling the teachers and students come together, such as conference and chat. This e-learning platform is in three versions which are "Free Campus", "Dokeos Pro" and "Dokeos Med". However, the version used in this study was the "Free Campus"

version, which did not include the sophisticated features provided to the other versions. Dokeos has been used as an e-learning system in some universities in Denmark and Belgium since 2004.

The researcher started an online course called 'Our Vocabulary Portfolio' on 12th August, 2009 on http://campus.dokeos.com. The first students who registered to this online course were the researcher's own class, 9B. The first registrations took place on 16th October, 2009. For this purpose the students were taken to the computer lab and were instructed step by step on how to complete the registration procedure and the main functions of the platform. The other two classes registered to the online course much later due to scheduling problems and the examinations at school. 9A registered on 16th November 2009 and 9D registered on 19th November, 2009.

The platform has two different views; the trainer view and the learner view (see Appendix 3). In the trainer view the trainer can choose the applications that his or her students need. The trainer decides on the applications students can use and makes them visible or invisible according to the needs of the course. It has a control panel which consists of three main sections.

The first section is the 'Authoring' section. This section includes sub-sections such as Description, Courses, Tests, Assessment, Documents, Links, Announcements and Glossary.

The second section is the 'Interaction' section and the sub-sections here are Agenda, Dropbox, Groups, Assignments, Wiki, Forums, Chat, Surveys and Notebook.

The third section is the 'Administration' section. This section includes four sub-sections; namely, Projects, Settings, Reporting and Backup.

In the learner view students can only see the sub-sections the trainer has made visible to them. In this study the sub-sections Description, Documents, Links, Glossary, Announcements, Agenda, and Assignments were made visible to learners.

The most used sub-section was the Assignments section. The researcher opened three files in this section: one file for each class. In each file, separate files were opened

for each student in that particular class. The students were asked to upload their artifacts only in their own file and were taught how to upload their artifacts in their files.

3.5.3. Researcher's Logs

The researcher kept a record of what had been done during the preparation phase of the e-portfolio study, how the e-portfolio study proceeded and what happened after the study. These logs also included observations on students' behavior and attitude towards the e-portfolio project, interesting events that took place during the study, changes observed in students and attempts in students in terms of strategy development and learner autonomy.

3.5.4. E-Portfolio Tasks

There were in total twelve assignments given to participants. All the tasks were in line with the vocabulary items taught in their English class. Each task was related to one unit of New Bridge to Success Grade 9. At the beginning it was decided to ask learners to prepare tasks starting from Unit 1. However, when the study started the learner had already finished Unit 4 and both the participants and the co-workers of the researcher were reluctant to go back to Unit 1. For this reason the tasks were designed starting from Unit 4 and ending at Unit 15 (see Appendix 4).

3.5.5. The Post-application Questionnaire

The post-application questionnaire was applied in the first week of May, 2010 and aimed to obtain a general reflection and evaluation from the participants about the e-portfolio application and to investigate whether the e-portfolio application provided a change in the participants' strategy use and level of autonomy. Again, in order to minimize comprehension problems the questionnaire was given in Turkish.

The post-application questionnaire consisted of three sections. The first section of the post-application questionnaire included seven reflection and evaluation questions. In these questions the students were asked how much time they allocated for this e-portfolio project weekly, how many assignments they prepared, whether they applied for other online courses available on the e-learning platform we subscribed, what the

reasons were in case they did not send any assignments, and how they would summarize the e-portfolio application in general (see Appendix 5).

The second and third sections were the same as the third and fourth sections of the pre-application questionnaire, respectively. Since these two sections were the same as in the pre-application questionnaire piloting was not needed for these two sections but for the first section of the questionnaire. For this purpose the post-application questionnaire was first given to a group of ten participants from the researcher's class. As there appeared to be no comprehension problems, the questionnaire was given to the rest of the participants.

After the post-application questionnaire was given to all the participants the Cronbach's alpha coefficients of the second and third sections of the post-application questionnaire were calculated as 0.94 and 0.72, respectively, proving that the questionnaire was reliable.

3.5.6. Semi-structured Interviews

After the portfolio project 31 students were interviewed on their experience with the e-portfolio study. At the beginning there was an aim to interview 10 participants from each class, however, since not all participants in the classes 9A and 9D showed the necessary interest in the e-portfolio application and since in these two classes the number of participants with no assignment was greater in number than it was in the researcher's class 9B, the criterion sampling model was used. For this reason in all classes all the participants who had sent at least nine assignments out of twelve assignments were chosen to be interviewed.

The interview questions were semi-structured questions and they were designed in the mother tongue. The aim of the interview was to find out how this project contributed to them in terms of learning vocabulary and developing new vocabulary learning strategies, how these new strategies helped their vocabulary learning, whether they had sent any assignments other than the ones given by the researcher, and how this e-portfolio application contributed to them in becoming more autonomous learners (see Appendix 6).

The interview was first piloted on two participants from the researcher's class who had sent eight assignments to the e-portfolio platform and who were not chosen to the interview group. After the piloting, the interviews were conducted in a staff room and before each interview the participants were informed that their interview would be recorded and they were asked for consent before each interview was held. The interviews were completed by 20th of May, 2010.

3.6. STEPS OF THE RESEARCH PROCESS

The research process was completed in ten steps, starting from August 2009 until May 2010. The steps and the dates of each procedure entailed in the research process are shown in Table 3.1.

Table 3.1. Steps of the research process.

STEP	DATE	PROCEDURE
1	12th August, 2009	The virtual course "Our Vocabulary Portfolio" was created on www.dokeos.com
2	1st week of October, 2009	The pre-application questionnaire was piloted in class 9E.
3	2nd week of October, 2009	Study was introduced to class 9B
4	16th of October, 2009	Class 9B was subscribed to the virtual course. Pilot task 'Introducing yourself' was given.
5	1st week of November, 2009	Study was introduced to classes 9A and 9D
6	2nd week of November, 2009	Student Consents were taken. The pre-application questionnaire was given to all groups.
7	16-19th of November, 2009	Classes 9A and 9D were subscribed to the virtual course.
8	3rd week of November, 2009-2nd week of May, 2010	E-portfolio study was carried out.
9	2nd week of May, 2010	The post-application questionnaire was given.
10	2nd-3rd week of May, 2010	Semi-structured interviews were carried out

3.7. DATA ANALYSIS

The study includes both qualitative and quantitative data. Both the pre-application questionnaire and the post-application questionnaire provide the quantitative data. Data from the first section of the pre-application questionnaire, which includes items that obtain demographic information, were transferred into the SPSS program in order to apply descriptive analysis. The data from the second section were also analyzed descriptively; however, the open ended question in this section was analyzed thematically. In order to ensure reliability the open ended question was also analyzed by another researcher. The analysis results of both researchers were compared and the common judgments were taken into consideration. The third and fourth sections of the pre-application questionnaire were completely analyzed through the SPSS program.

The post-application questionnaire also provides quantitative data. The first section of this questionnaire consisted of five Likert scale items and two open-ended questions. The Likert scale type items were analyzed through the SPSS program; while the open-ended questions were analyzed thematically. Again these questions were analyzed by a second researcher in order to obtain reliability. The second and third sections of the post-application questionnaire were completely analyzed through the SPSS program.

Interviews were the third major source of data in this study. Each interview was transcribed immediately. After the transcription process, each interview was analyzed thematically. Common thematic codes were identified and frequency tables were developed. In order to ensure reliability, all interviews and their transcripts were sent to another researcher who analyzed the data for a second time. Following the second analysis common judgments were taken into consideration and a third thematic coding was formed accordingly.

CHAPTER FOUR
RESULTS AND DISCUSSION

4.1. INTRODUCTION

This chapter presents an analysis of the data obtained from the pre-application questionnaire, the e-portfolio study, the post-application questionnaire and the learner interviews following the post-application questionnaire.

The Pre-application Questionnaire was given in order to answer the research questions, 'To what extent are students aware of vocabulary learning strategies?' and 'To what extent will a vocabulary study e-portfolio application contribute to our students in terms of becoming autonomous learners?', and to answer the specific research questions, 'What are the present strategies that students apply in learning vocabulary?' and 'To what extent are our students able to monitor their own learning?'.

The Post-application Questionnaire and the Semi-structured Interviews were carried out in order to answer the research question, 'How will a vocabulary study e-portfolio application contribute to strategy development in terms of vocabulary learning?' and the specific research questions, 'To what extent will students be able to change their present vocabulary learning strategies with this application?' and 'At the end of the application, will there be any progress in their autonomy? In what way would this progress be?

In accordance to the data obtained, both qualitative and quantitative data analysis techniques were used and the results were discussed. As for the Pre-application Questionnaire, each section was analyzed in terms of descriptive statistics by the use of SPSS program. Likewise, the Post-application Questionnaire was analyzed in terms of descriptive statistics, again through the SPSS program. Following this step, both the Pre- and Post- application Questionnaires were compared by the use of t-pair Test and Wilcoxon Sign Rank Test in order to specify whether there was a significant change after the e-portfolio application. Finally, semi-structured interviews were analyzed

thematically in order to describe any significant change resulting from the e-portfolio application.

4.2. DATA OBTAINED BEFORE THE E-PORTFOLIO APPLICATION

The data obtained from the Pre-application Questionnaire provided the data obtained before the e-portfolio application. This research instrument was used in order to collect demographic data related to the participants, to specify their computer use and Internet access conditions, to identify the vocabulary learning strategies used by the participants before the application and to specify their level of learner autonomy.

4.2.1. The Pre-application Questionnaire

The pre-application questionnaire consisted of four sections. The first section provided demographic information about the participants. The second section provided data about the participants' computer use and Internet access conditions. The third section provided data about the participants' vocabulary strategy use before the e-portfolio application. Finally, the last section provided data about the participants' level of autonomy before the e-portfolio application. In this part, data from each section will be analyzed separately.

4.2.1.1. Demographic information

The first section of the Pre-application Questionnaire included six questions which aimed to collect demographic data about the participants and their general interest towards learning English.

Table 4.1. Age groups of participants

Age	f	%
14	55	61.8
15	34	38.2

Table 4.2. Gender of participants

Gender	f	%
girl	43	48.3
boy	46	51.7

As seen in Table 4.1 and Table 4.2, 89 participants were involved in the study. 61.8 % of the participants were 14 years old and 38.2 % of the participants were 15 years old. In terms of gender, 48.3 % of the participants were girls while 51.7 % of them were boys.

Table 4.3. Year of English instruction received

Years of English Instruction	f	%
3-5 years	16	18
6-8 years	68	76.4
more than 8 years	5	5.6

As Table 4.3 reveals, 18 % of the participants reported that they had received 3-5 years of English instruction before they started their education in Mustafa Kaynak Anatolian High School. 76.4 % of the participants reported 6-8 years of English instruction; whereas, only 5.6 % of the participants reported more than 8 years of English instruction.

Table 4.4. Perceptions of participants on their proficiency level of English.

Level of English	f	%
very good	5	5.6
good	34	38.2
not sure	11	12.4
average	37	41.6
bad	2	2.2

In Table 4.4 it is seen that 5.6 % of the participants viewed their level of English as very good. 38.2 % of the participants reported to have good level of English while 12.4 % of the participants could not clearly define their level of English. The highest

percentage of participants; namely, 41.6 % of the participants considered their level of English as average. Only 2.2 % participants regarded their level of English as bad. As it is seen from these results, the participants were proficient enough to conduct a vocabulary e-portfolio study.

Table 4.5 Participants' general attitude towards learning English

Attitude Towards English	f	%
very easy	7	7.9
easy	20	22.5
not difficult	38	42.7
difficult	21	23.6
very difficult	3	3.4

As it is seen in Table 4.5, 7.9 % of the participants stated that learning English was very easy and 22.5 % of the participants viewed learning English as easy. Most participants with the percentage of 42.7 did not find learning English difficult. 23.6 % of the participants concluded that learning English was difficult and finally 3.4 % of the participants reported that learning English was very difficult. As a result of these responses it is clear that most participants; in fact, 73% of them, do not accept learning English as difficult so they would not have difficulties in comprehending the tasks demanded from them.

Tables 4.6. Language areas participants find difficult to comprehend or learn

Difficult Language Areas	N	Mean
Speaking	88	3.05
Vocabulary	89	3.00
Listening	89	2.82
Grammar	89	2.55
Reading	89	2.48
Writing	89	2.47

As it is seen from the Table 4.6, when the means of the responses given to the question 'Which skill areas do you find difficult to learn?' were examined, the results showed that the most difficult skill the participants thought to learn was speaking with

the mean 3.05, vocabulary following it with the mean 3.00. The least difficult skill area for these participants was writing, with the mean 2.47. These results showed that conducting a study on vocabulary learning was essential; in that, it was the second difficult skill area for the participants. Moreover, it was almost as difficult as speaking, which was accepted as the most difficult skill area by the participants.

4.2.1.2. Computer use and access to the Internet

This section was allocated to find out participants' general computer use habits, their Internet access status, and their experience in using computers for the purpose of language learning. There were sixteen questions in this section related to these topics.

All participants reported that they were computer users and 95.5 % of the participants stated that they owned their own personal computers; whereas, 4.5 % of the participants reported not to own personal computers.

The third item of this section was on computer programs the participants were able to use. As Table 4.7 shows, 88 participants with the percentage of 98.9 reported to be able to use 'Word' program while only one participant stated that he/she could not use this program. 61.8 % of the participants noted that they were able to use 'Excel'; whereas, 38.2 % of the participants reported they were not able to use this program. As for 'Power Point', 84.3 % of the responded positively and 15.7 % of the participants responded negatively. Apart from these most used three programs, 30.3 % of the participants stated that they were able to use other programs such as 'Photoshop', 'Movie maker', 'Flash', 'Acrobat reader', 'Picassa', and Publisher.

Table 4.7. Computer programs used by participants

Computer Programs	f	%
Word	88	98.9
Excel	55	61.8
Power point	75	84.3
Other	27	30.3

These results indicated that the participants were able to use the most needed programs to carry out the e-portfolio tasks to be given; namely, 'Word' and 'Power point' programs.

Item 4 searched for whether learners had access to the Internet. In terms of Internet access, 97.8 % of the participants reported to have direct access to the Internet while 2.2 % of the participants responded negatively.

Table 4.8. Source of Internet access

Source of Internet	f	%
No Access	3	3.4
Home	74	83.1
Another house	30	33.7
Internet café	31	34.8
School	27	30.3
Other	5	5.6

In the 5th item the participants were asked for their source of Internet access. It is important that the participants were able to give more than one response in this question. The results showed that the most Internet access source was 'home' with the percentage of 83.1. The second reported source was 'Internet café' with the percentage of 34.8. 33.7 % of the participants stated that their source of Internet access was 'another house', such as a neighbor's, a relative's or a friend's house. Another source of Internet access was 'school' with the percentage of 30.3. 5.6 % of the participants noted that their source of Internet access was other than the ones provided among the options such as cafés and restaurants, and father's workplace. Finally 3.4 % of the participants reported to have no Internet access at all.

Items 6, 7, 8, and 9 were related to time participants spent on weekdays and weekends on the computer and on the Internet. The results showed that 43.8 % of the participants used computers less than one hour on weekdays, as a result of this, as it was reported by 47.2% of the participants, they also spent less than one hour on the Internet. As for weekends, 49.4 % of the participants stated that they used computers 2-5 hours and 44.9 % of the participants reported that they spent 2-5 hours on the Internet.

Table 4.9. Purpose of Internet use

Purpose	f	%
Games	59	66.3
E-mailing	59	66.3
Studying	58	65.2
Chatting	68	76.4
Social sharing	62	69.7
Research	75	84.3
Learning English	25	28.1
Other	14	15.7

The 10th item investigated to what purpose or purposes the participants used the Internet. In this item participants were allowed to give more than one response. As Table 4.9. reveals, here the highest response was 'doing research' with the percentage of 84.3. The next most favored purpose of Internet use was reported as 'chatting' with percentage of 76.4. 'Social sharing' with the percentage of 69.7 was followed by 'e-mailing' and 'games' both with the percentage of 66.3. 'Studying' with the percentage of 65.2 was the sixth purpose of Internet use. The least reported purpose of Internet use was 'learning English' with the percentage of 28.1. Apart from these purposes 14 participants with the percentage of 15.7 reported that they used the Internet for other purposes such as reading, downloading songs or games, answering questionnaires, taking part in competitions, and watching serials.

Table 4.10. Frequency of contribution of the Internet on learning English

Frequency	f	%
always	11	12.4
usually	32	36.0
sometimes	26	29.2
rarely	14	15.7
never	6	6.7

The 11th item investigated to what extent participants thought their Internet use contributed to their learning of English. The results showed that in general there was a positive attitude towards the use of the Internet in terms of providing contribution to the participants' learning of English. When the responses 'always' and 'usually' were taken

into consideration, nearly half of the participants, 48.4 % of them, believed the Internet contributed to their language learning.

On the other hand, in order to identify the level of contribution the Internet provides on learning English first the means of each response were calculated, and then the grand mean of these means were calculated. To be able to decide on the level this grand mean falls in, the scale range interval should be calculated. The formula for scale range interval is:

$$\frac{S-1}{S}$$

In our study the scale range interval was calculated as: (S= number of destructors)

$$\frac{S-1}{S} = \frac{5-1}{5} = 0.8$$

When the scale range interval is calculated the scale range of each frequency items are listed as follows:

1 Never: 1.00-1.80
2 Rarely: 1.81-2.60
3 Sometimes: 2.61-3.40
4 Usually: 3.41-4.20
5 Always: 4.21-5.00

Since the grand mean of frequencies of contribution of the Internet on learning English was calculated as 2.69, it falls through the interval 2.61-3.40, which means the Internet “sometimes” contributes to the participants’ learning English.

Table 4.11. Areas of contribution of the Internet to learning English

Areas of Conribution	f	%
Vocabulary learning	36	40.4
Audio-visual learning	6	6.7
Learning through games	15	16.8
Comprehending subject matter	30	33.7
Learning and research	10	11.2
Communicating	5	5.6
Access to online dictionaries	8	8.9
Improving proficiency	3	3.3
No contribution	11	12.3

Item 12 was an open-ended question and aimed to find out how the Internet contributed to the participants' learning of English. Since this question was an open-ended question, thematic analysis was conducted. The analysis showed that participants' responses cumulated under nine topics. As revealed in Table 2.10, it was observed that the majority of the participants with the percentage of 40.4 believed that the Internet contributed to their 'vocabulary learning'. The least frequent response was 'improving their proficiency in English' with the percentage of 3.3. 12.3 % of the participants, on the other hand, believed that the Internet had no contribution to their learning of English.

Table 4.12. E-learning activities

E-learning	f	%
Dyned	62	69.7
Educational CDs	50	56.2
Videos on the Web	47	52.8
E-learning platform	22	24.7
Interactive websites	28	31.5

Items 13- 14 investigated the participants' former experience in e-learning studies. As it is seen in Table 4.12, 86.5 % of the participants reported that they had experienced an e-learning study. The majority of the participants stated that they had followed 'the Dyned program', an online computer program prepared by the Turkish Ministry of Education and students in state primary schools are required to complete it. 69.7 % of the participants reported to have used this program. The least performed

activity with the percentage of 24.7 was stated as ‘following an online course on an e-learning platform’.

The last two items were related to the participants’ portfolio and e-portfolio experience. 75.3 % of the participants reported that they had prepared paper-based portfolios in their previous educational life. On the other hand, the percentage of participants with an e-portfolio experience was not as high. 43.8 % of the participants stated that they had an e-portfolio experience before.

As it was understood from the data the participants were already computer users and most of them had access to the Internet. These participants were also able to use programs such as ‘word’ and ‘power point’ which were necessary to be able to carry out the tasks given to them. The data also reveal that most of the participants spent at least one hour on the computer and on the Internet daily. The participants also used the Internet actively for different purposes. Most of them believed that the Internet contributed to their English learning; in particular, in learning vocabulary, and they also had performed some activities related to language learning in their previous educational institutions. Finally, most students had a paper-based portfolio experience while nearly half of them also had an e-portfolio experience. As a result of these findings, it was concluded that, with some additional tutoring and guidance, the participants were ready to carry out a vocabulary e-portfolio application.

4.2.1.3. Vocabulary learning strategies

The third section of the questionnaire aimed to investigate the vocabulary learning strategies used by the participants before the e-portfolio application was carried out. This section included 41 different vocabulary learning strategies selected and adapted from Takač’s (2008) VOLSQUES (Vocabulary Learning Strategy Questionnaire for Elementary Schools). All strategies were asked in a five- scale Likert Type form where participants were expected to respond to each vocabulary learning strategy according to the frequency they used them; namely, ‘never’, ‘rarely’, ‘sometimes’, ‘usually’, or ‘ always’. In total there were 63 strategies, however, 41 of them were selected for this study. Before they were included in the pre-application

questionnaire the statements were translated from English to Turkish and slight adaptations were made so that it would adapt to the Turkish contexts.

Among these 41 strategies a classification was made. This classification aimed to select the vocabulary learning strategies which are expected to develop after carrying out the vocabulary learning e-portfolio application. This selection was essential; in that, it was not expected that the vocabulary learning e-portfolio study would address all strategies in the questionnaire and not all strategies were required to develop in order to carry out the e-portfolio application. In order to ensure reliability and face validity, another researcher and another co-worker were asked to select the vocabulary learning strategies that would be required to carry out the vocabulary learning e-portfolio tasks and that would be expected to develop by the end of the study. All three classifications were analyzed and a common classification was developed. According to this analysis, strategies 1, 3, 5, 8, 10, 11, 14, 16, 17, 18, 20, 23, 24, 25, 28, 31, 33, 34, 35, 39 and 41 (see Appendix 7) were directly related to the vocabulary learning e-portfolio application and were expected to show significant development by the end of the study.

In order to obtain a general view on the most used vocabulary learning strategies used by the participants, the means of the responses given to each strategy were calculated through the SPSS program and the results were listed in a descending list so that the strategies used by the participants could be identified from the most used strategies to the least used strategies.

Table 4.13. The most and least used three vocabulary learning strategies before the e-portfolio application

Strategies	N	Mean
translate	89	4.15
bilingual dictionary	89	4.02
like word	89	3.94
monolingual dictionary	89	2.09
note down while reading	89	2.01
vocabulary cards	89	1.92

According to the results shown in Table 4.13, the most used vocabulary learning strategy used by the participants with the mean 4.15 was strategy 22 which responds to *'In order to understand I translate vocabulary into L1'*. The second most used vocabulary learning strategy with the mean 4.02 was *'If I don't understand a word I look it up in a bilingual dictionary'*. The third most used vocabulary learning strategy with the mean 3.94, surprisingly, was *'If I like a word I remember it'*. Among all strategies the least favored strategy with the mean 1.92 was *'I make vocabulary cards'*. The second least favored vocabulary learning strategy with the mean 2.01 was *'I note down new words while I am reading for pleasure'*. The third least used vocabulary learning strategy with the mean 2.09 was *'If I don't understand a word I look it up in a monolingual dictionary'*

Table 4.14. The most and least used three 'e-portfolio vocabulary learning strategies' before the e-portfolio application

Strategies	N	Mean
bilingual dictionary	89	4.02
remember context	89	3.54
see in written form	89	3.47
group words	89	2.31
monolingual dictionary	89	2.09
note down while reading	89	2.01

As mentioned above, a classification was made, which involved strategies that were directly related to the vocabulary e-portfolio application and were expected to show significant change after the application. As it is seen in Table 4.14 the frequency distribution of these strategies revealed that the most used strategy in this group was *'If I don't understand a word I look it up in a bilingual dictionary'* with the mean 4.02. *'I remember a word if I remember the context in which I heard it'* with the mean 3.54 was the second most used strategy. The third strategy was *'I remember a word if I see its written form'* with the mean of 3.47. The least used strategy in this group was *'I note down words while I read books and magazines for pleasure'* with the mean of 2.01.

4.2.1.4. Learner autonomy

This section was the last section of the pre-application questionnaire and aimed to discover the level of learner autonomy of the participants. There were 21 items which were designed by Zhang and Li (2004, cited in Dafei, 2007). These questions were both used by its designers and by Dafei (2007) in studies on the autonomy level of Chinese students. Before they were included in the pre-application questionnaire, the questions were translated from English to Turkish and slight adaptations were made so that it would be applicable to the Turkish contexts.

These 21 items consisted of two sections. The first section included 11 Liker-scale type statements where participants were asked to respond in 'never', 'rarely', 'sometimes', 'often', and 'always'. The second section included 10 multiple choice items. However, as it was suggested in Dafei (2007), these multiple choice items were to be evaluated as Likert-scale type items; in that, the choice 'A' corresponded to the scale '1' as 'never' in the Likert-scale type items, 'B' corresponded to '2', 'C' corresponded to '3', 'D' corresponded to '4' and 'E' corresponded to '5'. As a result of this, when transferred to the SPSS program, the scaling was conducted accordingly.

In order to specify the level of learner autonomy of these participants, first the means of each questionnaire item were calculated, and then the grand mean of these means were calculated. To be able to decide on the level this grand mean falls in, the scale range interval was also be calculated as in Section 4.2.1.2.

The calculated grand mean for level of learner autonomy was 2.99 which fell in the interval of 2.61-3.40 meaning that these participants were neither autonomous nor non-autonomous. In fact, they were 'sometimes' autonomous. At the end of the study this mean was expected to increase in order to indicate that the level of autonomy of the participants also increased.

In this section the data gathered from the Pre-application Questionnaire were analyzed descriptively. Data related to demographic information on the participants, their computer use and Internet access conditions, their vocabulary learning strategy use

and their level of learner autonomy were examined. The following section will deal with the data obtained during the e-portfolio application.

4.3. DATA OBTAINED DURING THE E-PORTFOLIO APPLICATION

The main sources of data while the e-portfolio was being conducted were the number of artifacts sent to the e-portfolio portal and the researcher logs which aimed to keep track of the e-portfolio application process. In total 12 assignments (see Appendix 8) were given to participants, which covered the vocabulary that was studied in their language class. For each assignment two weeks were allocated. The assignments were both announced on the 'announcements' section of the e-portfolio portal and they were also given handouts on which the objectives of the task, step-by-step guidelines to complete the task and the general expectations were clearly stated (see Appendix 9). Participants were suggested to use as much visual and audio material as possible and were recommended to use 'word' or 'power point' programs as these two programs were mostly familiar to the participants, easy to use, and enabled the participants to fulfill the requirements of the task in the maximum level.

Three main folders were created by the researcher, one for each class, and in each folder separate folders were created for each participant so that it was possible to identify the numbers of assignments sent by each participant. Two of the classes were not the researcher's classes, so these two classes required additional observation and created difficulty in carrying out the study; in that, as the researcher was not their teacher, from time to time these participants showed reluctance in completing the assignments. In order not to lose their attention, every two weeks their progress was reported in written form to their own teachers so that they were able to encourage them to take the study serious. Unfortunately, these attempts were effective in the class 9A to a certain extent but in 9D they were not as effective as they were in 9A.

The e-portfolio study continued for 24 weeks; that is, participants were asked to send artifacts from the end of October 2009 until the beginning of May 2010. At the end of this period it was observed that in total 557 artifacts were sent by 89 participants (see Appendices 9-13 for assignment samples). 370 of these artifacts were sent by 9B, the

researcher's class. 109 artifacts were sent by 9A and 78 artifacts were sent by 9D. In 9B there were no participants who did not send any artifact, in 9A 3 participants reported that they did not send any artifacts and in 9D this number raised to 9.

Table 4.15. Numbers of artifacts sent by each class

Numbers of artifacts sent by each class	9A	9B	9D	Total
Number of participants with no artifacts	3	0	9	12
Number of participants with 6-10 artifacts	15	4	13	32
Number of participants with 11-15 artifacts	10	7	6	23
Number of participants with 15 + artifacts	0	4	0	4
Total number of artifacts sent by participants	109	370	78	557

Another important result was, although only 12 assignments were given, in the researcher's class 2 participants sent more than 20 artifacts, and 13 participants sent more than 12 artifacts, which means these participants produced artifacts other than the ones required by the researcher. In the classes 9A and 9D the maximum number of artifacts sent by participants were 14 and 11, respectively. In 9A only 2 participants sent more than 12 artifacts whereas in 9D no participant was even able to send all assignments required by the researcher. These numbers show that, not being the teacher of all participants and low level of collaboration of co-workers created a strong limitation in the study. It is speculated that if all classes were the researcher's classes the results would be much successful.

The vocabulary e-portfolio tasks given by the researcher were asked to be completed at home, however, some students reported that they had difficulties in accessing the e-portfolio portal or were not able to send their artifacts. For this reason one hour every week was conducted in the computer laboratory and the participants were able to work on their artifacts. In addition to this, the researcher brought her own personal laptop computer to school three days a week so that if needed, participants could work on the researcher's computer. It was also announced in the other two classes that the researcher's computer was available to work on. They were also informed that the last hour on Wednesdays they were able to join the researcher's class in the computer laboratory. However the interest was on very low level.

During the 24 week study some observations were noted by the researcher regarding the class 9B as some of the participants subscribed to other e-learning courses on the e-portfolio portal opened by other institutions and teachers from different countries. There were participants who downloaded learning materials from these e-learning courses. Some of the participants also developed online friendships from other countries through the e-learning portal. Participants also showed interest in the vocabulary games and vocabulary practice links given on the e-portfolio portal and six of them attempted to create wiki pages, which was also provided on the e-portfolio portal. All these events show that the e-portfolio portal was not only used to send e-portfolio assignments but also inspired some of the participants to conduct individual studies, which can be accepted as a sign of learner autonomy.

4.4. DATA OBTAINED AFTER THE E-PORTFOLIO APPLICATION

The third phase of the study was the post application stage. In this stage the data obtained from the Post-application Questionnaire and the Semi-structured interviews provided the data obtained after the e-portfolio application. The Post-application Questionnaire was used in order to receive a general evaluation of the vocabulary e-portfolio application from the participants, to identify the vocabulary learning strategies used by the participants after the application, and to specify their level of learner autonomy after the application. The data related to vocabulary learning strategies and learner autonomy were also used in order to specify whether there were any significant changes in these areas after the vocabulary learning e-portfolio application.

The semi-structured interviews, on the other hand, were not conducted on all the participants. A criterion-based sampling was applied due to the fact that responses taken from participants who did not send any artifacts or from the ones who sent very few artifacts would not be reliable enough. For this reason participants who sent at least nine artifacts to the e-portfolio platform were interviewed. The interviews aimed to gather detailed information on any possible change in strategy use and level of learner autonomy in participants after the e-portfolio application. It also aimed to provide data triangulation to the data obtained from Pre- and Post- application Questionnaires.

4.4.1. The Post-application Questionnaire

The Post-application Questionnaire consisted of three sections. The first section provided a general evaluation of the vocabulary learning e-portfolio application. The second section provided data related to the participants' vocabulary strategy use after the e-portfolio application. Finally, the last section provided data related to the participants' level of autonomy after the e-portfolio application. In this part, data from each section will be analyzed separately.

4.4.1.1. Evaluation of the e-portfolio application

This section included seven items three of which being open ended questions. The aim of this section was to receive an overall evaluation of the study. It also aimed to find out the reasons lying beneath the unwillingness of the participants who did not fulfill any e-portfolio tasks.

The first question investigated the number of artifacts sent to the e-portfolio platform and the number of participants who did not carry out any task in the e-portfolio application.

Table 4.16. Number of artifacts sent by participants

Number of assignments	f	%
no assignment	12	13.5
1-5 assignments	32	36.0
6-10 assignments	23	25.8
11-15 assignments	18	20.2
more than 15	4	4.5

As it is seen from Table 4.16, 12 participants out of 89 with the percentage of 13.5 reported of not having sent any e-portfolio task to the e-portfolio platform. Most of the participants, with the percentage of 36 sent only 1-5 assignments. 6-10 assignments with the percentage of 25.8 and 11-15 assignments with the percentage of 20.2 followed it. Only 4 participants with the percentage of 4.5 sent more than 15 assignments to the e-portfolio platform.

The second item investigated how much time participants allocated to the vocabulary e-portfolio study.

Table 4.17. Frequency of logging in the e-portfolio portal in a week

Frequency of logging in	f	%
never logged in	19	21.3
1-2 a week	60	67.4
3-4 a week	6	6.7
5-6 a week	2	2.2

As Table 4.17 reveals, 19 participants with the percentage of 21.3 stated that they never logged in. Here it must be emphasized that this response was most probably taken from the other classes because the researcher was able to follow the participants' activities on the e-portfolio portal and clearly observed that her own students with only a few exceptions were active users of the e-portfolio portal. Most of the participants with the percentage of 67.4 reported to log in the e-portfolio portal once or twice a week, which was, in fact, enough to send the assignments regularly. There were more enthusiastic participants with the percentage of 6.7 who reported to log in the e-portfolio portal 3-4 times a week and 2 participants with the percentage of 2.2 stated that they logged in the e-portfolio portal 5-6 days a week. Unfortunately 2 participants did not give any response to this question.

The third and the fourth items investigated whether the participants subscribed to another online course on the e-learning portal on which our e-portfolio study was being carried out, and the number of courses they subscribed to if there were any. The results showed that only three students with the percentage of 3.4% subscribed for another online course. Two of these participants reported that they subscribed for 1-3 courses while one of them claimed that he/she subscribed for more than 10 online courses. Although in the fifth item they were asked to write the names of the online courses they subscribed, unfortunately none of them did so.

The sixth item aimed to find out the reasons why some participants did not send any assignments to the e-portfolio portal. Since these responses were of open-ended questions thematic analysis was applied on it. In order to obtain reliability and face

validity, the same questions were analyzed by another researcher. According to both analyses a classification was made.

Table 4.18. Reasons for not sending artifacts

Reasons for no artifacts	f	%
Difficult to study online	1	8.33
It is nonsense	3	25.0
Lack of time	2	16.66
I couldn't access	2	16.66
I don't know how to do it	1	8.33
Lack of English proficiency	1	8.33
Technical problems	2	16.66

As Table 4.17 reveals, 12 participants reported that they did not send any artifacts to the e-portfolio portal. 3 of them with the percentage of 25 stated that they found the study '*nonsense*'. The second frequent reasons were *'lack of time'*, *'I couldn't access'*, and *'technical problems'*. The percentages for these responses were 16.66. The rest of them claimed that it was *'difficult to study online',* they '*didn't know how to do it'*, and *'lack of English proficiency'*. The percentages for these responses were 8.33.

In the final item the participants were requested to describe their e-portfolio study in one sentence. Ten different types of responses were determined.

Table 4.19. Evaluation of the e-portfolio application

Evaluation of e-portfolio application	f	%
It improved my vocabulary learning	17	25.75
It improved my sentence building	5	7.57
It provided visual learning	4	6.06
It is fun to study online	10	15.15
It was homework	3	4.54
It was boring	10	15.15
It was time consuming	4	6.06
I wasn't successful	3	4.54
It was nonsense	5	7.57
It improved my English	5	7.57

66 participants responded to the seventh question. As it is seen in Table 4.19, the e-portfolio application seems to have reached its goal, for the majority of the participants with the frequency of 17 and percentage of 25.75 claimed that this study

'improved their vocabulary learning'. 15.15% of them reported that '*it was fun to study online'* while the same amount of participants stated that *'it was boring'*. 7.57 % of the participants pointed out that the study *'improved their sentence building'* and *'their English'*; on the other hand, the same number of participants summarized the study as *'nonsense'*. 6.06 % of the participants described the study as *'it provided visual learning'*, however the same number of participants complained that the study was *'time consuming'*. Finally 4.54 % of the participants confessed that they did the study because *'it was homework'* and that they *'were not successful'*.

Section 4.4.1.1 provided information about how many artifacts the participants sent to the e-portfolio portal, how frequent they logged in the e-portfolio portal on weekly bases, and whether they registered for other online courses. It also shed light on why some participants were not involved in the study and how the participants perceived the study.

4.4.1.2. Vocabulary learning strategies

The second section of the Post-application Questionnaire aimed to investigate the vocabulary learning strategies used by the participants after the e-portfolio application was carried out. This section was exactly the same as the third section of the Pre-application Questionnaire. Participants were required to decide on how applicable the strategies were by evaluating them as 'never', 'rarely', 'sometimes', 'usually' , and 'always'.

Table 4.20. The most and least used three vocabulary learning strategies after the e-portfolio application

Strategies	N	Mean
bilingual dictionary	89	4.31
relate to illustration	89	4.04
translate	89	3.91
note down while reading	89	2.35
monolingual dictionary	89	2.16
vocabulary cards	88	1.99

As it is seen in Table 4.20, the results reveal that first three mostly used strategies were *'If I don't understand a word I look it up in a bilingual dictionary'*, *'In order to remember a word, I relate it to an illustration'*, and *'In order to understand a word I translate it into my mother tongue'*. The means for these strategies were 4.31, 4.04 and 3.91, respectively. The least used strategy was *'I make vocabulary cards'* with the mean 1.99.

Table 4.21. The most and least used three 'e-portfolio vocabulary learning strategies' after the e-portfolio application

Strategies	N	Mean
bilingual dictionary	89	4.31
relate to illustration	89	4.04
leaf through dictionary	89	3.87
group words	89	2.54
note down while reading	89	2.35
monolingual dictionary	89	2.16

As seen in Table 4.21, the first three vocabulary learning strategies related to the e-portfolio application were *'If I don't understand a word I look it up in a bilingual dictionary'*, *'In order to remember a word I relate it to an illustration',* and *'In order to learn new words I leaf through a dictionary'* with the means 4.31, 4.04 and 3.87, respectively. The least favored vocabulary learning strategy was with the mean 2.16 *'If I don't understand a word I look it up in a monolingual dictionary'*.

4.4.1.3. Learner autonomy

The third part of the Post-application Questionnaire was the same as the fourth part of the Pre-application Questionnaire. The aim was to discover whether any significant change took place in the participants' level of learner autonomy. In order to specify their level of learner autonomy again the grand mean of the responses given to the items in this section was calculated.

The grand mean of learner autonomy was 2.81 after the e-portfolio application. It was lower than the grand mean obtained before the e-portfolio application which was

2.99. However, the grand mean after the e-portfolio application still was in the interval of 2.61-3.40, which means it was the same as it was before the e-portfolio application. This result suggests that the participants were neither autonomous nor non-autonomous. Their frequency of autonomous behavior could be described as 'sometimes'.

In this section the data obtained from the Post-application Questionnaire was analyzed. This analysis covered the data related to the overall evaluation of the study, the vocabulary leaning strategies that were preferred by the participants after the e-portfolio application and their level of learner autonomy after the application. The following section will cover the analysis of the second data collection instrument that has been applied after the e-portfolio application; namely, the Semi-structured Interviews.

4.4.2. Semi-structured Interviews

The Semi-structured Interviews were applied in the second and third weeks of May 2010, just after the Post-application Questionnaire. It aimed to provide data triangulation to the questionnaire results. The interviews were held with 31 participants who were selected depending on a criterion-based sampling. The criterion for this selection was sending at least 9 assignments to the e-portfolio platform. The reason of the number 9 is there were 12 assignments given to participants and 9 makes 75 % of the assignments. It was necessary that the participants to be interviewed should have done most of the assignments so that their responses to the interview questions would be reliable and fulfill our aim. Each interview was conducted in the mother tongue. The participants were interviewed individually in a staff room and before each interview each participant was informed that the interview would be recorded and the reasons of this recording were clearly explained.

The interview consisted of five questions. The first question aimed to obtain a general statement of the benefits of the vocabulary e-portfolio application the participants perceived to have received. The second and third questions searched for the effects and benefits of the vocabulary e-portfolio application in terms of strategy use.

Finally, the fourth and fifth questions investigated the development of self-study skills of participants and the effect of the vocabulary e-portfolio on developing this skill.

Each interview was first transcribed. Following this step, each question was thematically analyzed and the responses were classified under related categories. In order to ensure reliability and face validity the transcriptions were sent to another researcher and this researcher was asked to analyze the data thematically. Both analyses were compared and a common classification was specified.

4.4.2.1 Analysis of the interview questions

Q1 *In general, what kind of benefits did you receive from this portfolio study?*

This question received 72 responses. 52 of these responses were categorized as 'benefits in terms of vocabulary learning'. Under this category five sub-categories were specified which were *'it expanded my vocabulary knowledge'*, *'it helped learning and revising vocabulary'*, *'it made me use vocabulary'*, *'it made vocabulary easy to remember'*, and *'it created curiosity in learning vocabulary'*. 17 of the responses were categorized as 'benefits in terms of strategy development' which was further classified under three sub-categories. These sub-categories were listed as '*it improved my dictionary use'*, *'I changed my learning style'*, and *'I became aware that you can learn from the Internet'*. 2 responses were categorized as 'benefits in terms of autonomy development'. Under this category two sub-categories could be listed; namely, *'I evaluated my learning'* and *'I made new friends and so I developed a need for communication'*. Only one response stated that it had no benefit at all.

Table 4.22. Frequencies and percentages of responses given to Q1

Main categories	f	%	Sub-categories	f	%
Benefits in terms of vocabulary learning	52	72.2	-I expanded my vocabulary knowledge	19	61.3
			-It helped learning and revising vocabulary	9	29
			- It made me use the vocabulary	16	51.6
			-It made vocabulary easy to remember	4	12.9
			-It created curiosity in learning vocabulary	4	12.9
Benefits in terms of strategy development	17	23.6	- I improved my dictionary use	13	41.9
			-I changed my learning style	2	6.45
			-I became aware that you can learn from the Internet	2	6.45
Benefits in terms of autonomy development	2	2.77	-I evaluated my learning.	1	3..22
			-I developed a need for communication	1	3..22
No benefit	1	1.38		1	3..22

As it is seen from the Table 4.22 the majority of the interviewees believed that the vocabulary e-portfolio application improved them in learning vocabulary and using the vocabulary learnt. In terms of strategy use the participants mostly improved their dictionary use. Although not many in number, the participants also showed development in learner autonomy. On the other hand, 1.38 % of the responses were negative and only 3.22 % of the interviewees stated that they did not receive any benefit from the study.

Q2-A *Together with this study what kind of new vocabulary learning strategies did you develop?*

This question received 50 different responses. 35 of these responses were classified as 'cognitive vocabulary learning strategies', 3 of them were 'metacognitive vocabulary learning strategies', 9 of them were 'social-affective vocabulary learning strategies', and 3 responses were negative. 'Cognitive vocabulary strategies' went under a further classification which resulted in nine sub-categories. These sub-categories were

listed as *'recording vocabulary on computer, in notebook or textbook'*, *'making vocabulary lists'*, *'word-mapping'*, *'taking notes in the book'*, *'using vocabulary in sentence'*, *'writing repeatedly'*, *'relating vocabulary to an image'*, *'looking up in a dictionary'*, *'testing myself'*, *'sticking vocabulary on walls'*. 'Metacognitive vocabulary learning strategies' were also classified into sub-categories. Three sub-categories emerged: *'examining vocabulary in context'*, *'examining structure of vocabulary'*, and *'keywords'*. There were also two sub-categories of 'social-affective vocabulary learning strategies' which were *'games'* and '*surfing the net'*.

Table 4.23. Frequencies and percentages of responses given to Q2-A

Main categories	f	%	Sub-categories	f	%
			-Looking up in dictionary	2	6.45
Cognitive strategies	35	70	-Recording on computer/ notebook/ text book	8	25.8
			-Making vocabulary lists	4	12.9
			-Word-mapping	1	3.22
			-Testing myself	1	3.22
			-Using in sentence	11	35.5
			-Wring repeatedly	3	9.67
			-Relating to an image	5	16.1
			-Sticking on walls	2	6.45
Metacognitive strategies	3	6	-Examining in context	1	3.22
			-Examining word structure	1	3.22
			-Using keywords	1	3.22
Social-affective strategies	9	18	-Games	5	16.1
			-Surfing on the Internet	4	12.9
No change in strategies	3	6		3	9.67

As Table 4.23 reveals, the most developed strategy was with the percentage of 35.48 *'using vocabulary in sentence'* which was followed by *'recording vocabul*ary', *'relating vocabulary to an image'*, and *'games'* with the percentages 25.8 and 16.12, respectively. Only 3 of the participants claimed that there had been no change in their strategy use in terms of learning vocabulary.

Q2-B *What kind of benefits did this/ these technique(s) provide you with?*

Again 50 responses were recorded on this question. 28 of the responses were related to 'improvement in language skills', 13 of them were related to 'cognitive skills', 5 of them were related to 'social-affective skills', 1 of them was on 'metacognitive skills', and finally 3 of them were negative responses. The responses to 'improvement in language skills' were categorized into four sub-categories which were *'I am able to build sentences'*, *'I enlarged my vocabulary knowledge'*, *'It makes my vocabulary learning faster and easier'*, and *'I'm more successful in writing/grammar/speaking/learning vocabulary/exams'*. The responses given to 'social-affective skills were also categorized under three subcategories which were *'It was more enjoyable'*, *'It improved my computer skills'*, and *'I made new friends'*

Table 4.24. Frequencies and percentages of responses given to Q2-B

Main categories	f	%	Sub-categories	f	%
Improvement in language skills	28	56	-I am able to build sentences	5	16.1
			- developed my vocabulary learning	10	32.3
			-It makes vocabulary learning easier	4	12.9
			-I'm more successful in writing/ grammar/ speaking/ vocabulary/ exams	9	29
Improvement in cognitive skill	13	26	-It is easier to retain new words in my memory	13	41.9
Improvement in metacognitive skills	1	2	-I discovered the multi-dimensional aspect of words	1	3.22
Improvement in social-affective skills	5	10	-It is more enjoyable	2	6.45
			-I improved my computer skills	2	6.45
			-I made new friends	1	3.22
No benefit	3	6		3	9.67

As Table 4.24 reveals, the most impressive reported outcome of the study was being able to *'retain new words in the memory'* with the percentage of 41.9; being able to *'develop vocabulary'* and *'build sentences'* following it with the percentages 32.25

and 16.12, respectively. Again only 3 of the participants claimed that the study had provided no specific benefit on their learning.

Q3-A *What kind of assignments did you put on your e-portfolio other than given by your teacher?*

This question aimed to find out whether the participants developed an interest in self-study and thereby showed any signs of learner autonomy. For this question, 37 responses were given. 7 of the responses revealed that the participants had produced completely new items; that is, artifacts which are completely original creations. 18 responses showed that the participants prepared artifacts somehow similar to the ones given by the researcher. 2 responses were related to activities other than producing artifacts. 10 participants, however, reported that they did not send any extra assignment to the e-portfolio portal.

Table 4.25. Frequencies and percentages of responses given to Q3-A

Main categories	f	%	Sub-categories	f	%
			-Wrote stories	4	12.9
Wrote original items	7	18.9	-Wrote a poem	1	3.22
			-Wrote a song	1	3.22
			-Wrote dialogues	1	3.22
			-Similar assignments to the ones on		
Did extra assignments	18	48.6	the Internet	5	16.12
			-Assignments related to units	5	16.12
			-Assignments related to interests	2	6.45
			-Totally different assignments	5	16.12
			-Tried to translate things	1	3.22
Other activities	2	5.4	-I visited English websites	1	3.22
			-I found pictures	1	3.22
No extra assignment	10	27		10	32.25

As it is seen from the Table 4.25 out of 31 participants, who were interviewed, 10 of them did not produce any extra artifact. However the remaining 21 participants appeared to be more willing in the study so that they either did *'similar assignments they saw on the Internet'*, *'assignments related to the units'* studied or *'assignment that*

were totally different' from the ones given by the researcher. There were also participants who produced their own creative works, *'stories'* being the most favored ones. Participants also gave place to artifacts that reflect their interests. From these results it can be concluded that almost 68% of the interviewed participants showed signs of developing self-study skills and learner autonomy.

Q3-B *How did this project influence you in terms of studying by yourself?*

This was the final question of the interview and aimed to obtain a general opinion from the participants regarding what kind of effects the study had on their self-study skills. In total 49 responses were taken from the interviewees. These responses were classified into three different categories which were 'Influence in terms of learner autonomy', 'Influence in terms of development in learning skills', and 'Influence in terms of social-affective development'. The first category was grouped into 8 sub-categories and each of the other two categories was grouped into 4 sub-categories. Only one out of 49 responses was negative in this question.

Table 4.26. Frequencies and percentages of responses given to Q3-B

Main categories	f	%	Sub-categories	f	%
Influence in terms of learner autonomy	24	48.9	-When bored I do something for my portfolio	2	6.45
			-I felt the need to study	7	22.6
			-Sense of responsibility	4	12.9
			-I can do things by myself	5	16.1
			-I made use of resources	2	6.45
			-Made my life organized	2	6.45
			-Made me study regularly	1	3.22
			-Registered to different courses	1	3.2
Influence in terms of learning skills	14	28.6	-I learn better	5	16.1
			-Made computer use purposeful	4	12.9
			-I improved myself	4	12.9
			-Vocabulary is easier to remember	1	3.22
Influence in terms of social-affective development	10	20.4	-Positive attitude towards English	1	3.22
			-Developed creativity	1	3.22
			-It was enjoyable	4	12.9
			-It made me enthusiastic	4	12.9
No influence	1	2.04		1	3.22

As Table 4.25 reveals, the responses given to Question 3-B reveal that this study had a positive impact on self-study skills; in that, the responses suggest that the study influenced participants in terms of learner autonomy because the percentage of the responses on supporting this result was 48.97%. Participants claimed that they *'felt a need to study'* and that they *'did things by themselves'*. They also claimed that they *'learnt better'*. Since only one participant reported on 'no influence' it can be concluded that the study had in fact a positive influence on learners.

The responses obtained from the interviewees reveal that most of them believed that the e-portfolio study expanded their vocabulary knowledge and it made them use vocabulary. The most used strategies were reported as *'using words in sentence'* and *'relating words to an image'*. Most of the interviewees believed that these strategies aided them in *'retaining words in the memory'* and *'developing their vocabulary learning'*. Two thirds of the interviewees sent extra artifacts to the e-portfolio portal, most of which consisted of similar assignments they had been asked to do or assignments related to the units they had studied. Finally, almost all interviewees

pointed out that the e-portfolio study had a positive influence on them, most of which were in terms of developing learner autonomy.

As the results of Pre-application and Post-application Questionnaires, the Vocabulary E-portfolio Application and the Semi-structured Interviews were examined and revealed through tables, it was essential to conduct further analyses in order to find out whether there were significant changes after the Vocabulary E-portfolio Application. For this purpose first the results of the questionnaires will be analyzed. Following this step the interview results will be examined in order to provide data triangulation.

4.5. DISCUSSION

The aim of the study was to find out whether the vocabulary e-portfolio application would lead to any significant change in the participants' vocabulary strategy use and level of learner autonomy entailed three research questions and four sub-questions related to these research questions.

4.5.1 Vocabulary Learning Strategies Used by Participants Before the E-portfolio Application

The first research question aimed to find out to what extent the participants were aware of vocabulary strategies and to identify the vocabulary learning strategies used by the participants before the e-portfolio application. For this purpose the Pre-application Questionnaire was used. As a result of the analyses the Pre-application Questionnaire results indicated that the most favored ten vocabulary learning strategies were *'translating into L1'*, '*using bilingual dictionaries'*, '*learning from games'*, '*asking the teacher'*, *'making word lists'*, *'remembering the location of the word'*, '*learning from TV'*, *'remembering the written form'*, *'personalizing vocabulary'*, and *'guessing from context'*. The strategies *'using bilingual dictionaries'*, *'making word lists', 'remembering the location of the word'*, *'personalizing vocabulary'*, and *'guessing from context'* are in accordance with the most frequently used strategies specified by Cohen

(2002), Cohen and Macaro (2007), Hulstijn (1997), Nation (2002), Nation and Meara (2002), Schmitt (1997), Schmitt (2002), Takač (2008) (see Table 2.13).

4.5.2. Contribution of Vocabulary Study E-portfolio to Participants' Strategy Development in Terms of Vocabulary Learning

The second research question investigated how a vocabulary study e-portfolio application would contribute to strategy development in terms of vocabulary learning. It aimed to find out to what extent the study would change the participants' vocabulary learning strategy choice. In order to see whether there was a significant change in the strategy use of participants after the e-portfolio application the Post-application Questionnaire was given. For this purpose the first step was to compute the grand mean of the responses given to all pre-application strategies for each participant. The same was calculated for post-application strategies, too. When these two grand means were analyzed descriptively, the results showed that the grand mean of post-application vocabulary learning strategies was higher than the grand mean of pre-application vocabulary strategies.

Table 4.27. Comparison of grand means of pre- and post-application vocabulary learning strategies

	N	Mean
Pre-application strategy	89	3,09
Post- application strategy	89	3,19

As seen in Table 4.27, the grand mean of responses given to post-application vocabulary learning strategies resulted as 3.19 whereas it was computed as 3.09 before the vocabulary e-portfolio application. However, this change does not mean there was a significant change in strategy use. To be able to determine whether this change was a significant change the first step was to find out whether these results were of parametric or non-parametric nature. To be able to specify this, both means were compared through One-Sample Kolmogorov-Smirnov Test.

Table 4.28. One-Sample Kolmogorov-Smirnov Test results for pre- and post-application vocabulary learning strategies.

		Pre-application strategy	Post-application strategy
N		89	89
Normal Parametersa	Mean	3.0992	3.1913
	Std. Deviation	.54145	.59600
Most Extreme Differences	Absolute	.045	.139
	Positive	.045	.070
	Negative	-.044	-.139
Kolmogorov-Smirnov Z		.421	1.312
Asymp. Sig. (2-tailed)		.994	.064

a. Test distribution is Normal.

As it is seen from Table 4.28 $p > 0.05$ for each value which means that there was a normal distribution for these values. For this reason in order to compute the significance level Paired-Samples t-test was used.

Table 4.29. Paired-sample T-test results for pre-and post-application vocabulary strategies

	Sig.(2-tailed)
Pair 1	
Pre-strategy	
Post-strategy	0.290

As it is seen in Table 4.29, the results from the computation showed that when paired-sample t-test was applied on pre- and post-application vocabulary learning strategies there was not a significant difference in the scores for pre-application vocabulary strategies ($M = 3.0992$, $SD = 0.54145$) and post-application vocabulary strategies ($M = 3.1913$, $SD = 0.596$); $t(89) = -1.065$, $p = 0.290$; $p > 0.05$

As it was mentioned before it was not expected that the use of all strategies to show significant difference. For this reason, strategies 1, 3, 5, 8, 10, 11, 14, 16, 17, 18,

20, 23, 24, 25, 28, 31, 33, 34, 35, 39, and 41 were specified as strategies that were likely to show significant change. In order to identify any change in the use of these strategies after the vocabulary e-portfolio application, both the grand means of pre- and post-application e-portfolio strategies were computed and analyzed.

Table 4.30. Comparison of grand means of pre- and post-application e-portfolio strategies

	N	Mean
Pre e-portfolio strategies	89	2.89
Post e-portfolio strategies	89	2.77

As shown in Table 4.30, the grand mean of responses given to post-application e-portfolio strategies resulted as 2.77 whereas it was computed as 2.89 before the vocabulary e-portfolio application. According to these results there was a decline in the use of these strategies. However, this decline does not mean there has been a significant change in the use of these strategies. To be able to determine whether this change was a significant change again the first step was to find out whether these results were of parametric or non-parametric nature. To be able to specify this, both means were compared through One-Sample Kolmogorov-Smirnov Test.

Table 4.31. One-Sample Kolmogorov-Smirnov Test results for pre- and post-application e-portfolio strategies.

		prevocabulary	postvocabulary
N		89	89
Normal Parametersa	Mean	2.8967	2.7758
	Std. Deviation	.61169	.68132
Most Extreme Differences	Absolute	.065	.053
	Positive	.055	.053
	Negative	-.065	-.045
Kolmogorov-Smirnov Z		.617	.498
Asymp. Sig. (2-tailed)		.841	.965

a. Test distribution is Normal.

As it is seen from the Table 4.31, $p > 0.05$ for each value which means that there was a normal distribution for these values. For this reason in order to compute the significance level Paired-Samples t-test was conducted.

Table 4.32. Paired-Sample t-test Results for pre-and post-application e-portfolio strategies

	Sig.(2-tailed)
Pair 1	
Pre e-portfolio strategies	
Post e-portfolio strategies	.228

According to these results shown in Table 4.32, when Paired-sample t-test was applied on pre and post e-portfolio strategies there was not a significant difference in the scores for pre-e-portfolio strategies (M=2.8967, SD= .61169) and post e-portfolio strategies (M = 2.7758, SD = .68132); t (89) = 1.215, p = 0.228; p > 0.05.

As a next step each specified e-portfolio strategy was examined. In order to achieve this, on each pre- and post- application responses given to each specified strategy One-Sample Kolmogorov-Smirnov Test was applied so that it was possible to specify whether they were of parametric or non - parametric nature.

Table 4.33. Results of One-Sample Kolmogorov-Smirnov Test applied on individual strategies

Strategies	Pre-application p value	Post-application p value
S1: use in sentence	.000	.001
S3: revise regularly	.000	.000
S5: use in various ways	.002	.000
S8: bilingual dictionary	.000	.000
S10: immediately write it down	.000	.000
S11: note down while reading	.000	.000
S14: see in written form	.000	.000
S16: connect with an image	.004	.000
S17: monolingual dictionary	.000	.002
S18: associate with known words	.005	.000
S20: leaf through dictionary	.000	.000
S23: use colours and highlighters	.004	.010
S24: group words	.001	.000
S25: use immediately	.000	.000
S28: associate with pictures/drawings	.002	.000
S31: remember the context	.000	.003
S33: pick up while reading	.001	.000
S34: connect opposite/ similar word	.022	.000
S35: connect with physical objects	.006	.009
S39: keep vocabulary notebook	.000	.021
S41: learn from the Internet	.011	.000

From the values revealed in Table 4.33, it was concluded that all strategy pairs were of non-parametric nature because either both pre- and post- application p values were smaller than 0.05 or only one of them was smaller than 0.05. Since these values were of non-parametric nature Wilcoxon Signed Rank Test was conducted on these data

Table 4.34. Wilcoxon Signed Rank Test results for Strategy 1

		N	Mean Rank	Sum of Ranks	z	p
ps1 - s1						
	Negative Ranks	24a	26.65	639.50	-2.904	.004
	Positive Ranks	41b	36.72	1505.50		
	Ties	24c				
	Total	89				

As the Table 4.34 reveals, after Wilcoxon Signed Rank Test was applied on pre- and post-application responses to Strategy 1 which was *'In order to remember words I use them in a sentence'*, it was observed that there was a significant change in the use of this strategy ($z = -2.904$ and $p = 0.004$; $p < 0.05$).

Table 4.35. Wilcoxon Signed Rank Test results for Strategy 3

		N	Mean Rank	Sum of Ranks	z	p
ps3 - s3						
	Negative Ranks	23a	31.93	734.50	-3.324	.001
	Positive Ranks	49b	38.64	1839.50		
	Ties	17c				
	Total	89				

As it is seen in Table 4.35, the Wilcoxon Signed Rank Test which was applied on pre- and post-application responses to Strategy 3; that is, *'I regularly revise vocabulary outside the classroom'* revealed that there was a significant change in the use of this strategy ($z = -3.324$ and $p = 0.001$; $p < 0.05$).

Table 4.36. Wilcoxon Signed Rank Test results for Strategy 5

		N	Mean Rank	Sum of Ranks	z	p
ps5 - s5						
	Negative Ranks	24a	36.35	872.50	-3.398	.001
	Positive Ranks	54b	40.90	2208.50		
	Ties	11c				
	Total	89				

As Table 4.36 reveals, Wilcoxon Signed Rank Test results for pre-and post-application responses given to Strategy 5, *'In order to remember new words in new conditions, I use the words I know in different forms'*, reveal that there was a significant change in the use of this strategy ($z = -3.398$ and $p = 0.001$; $p < 0.05$).

Table 4.37. Wilcoxon Signed Rank Test Results for Strategy 8

		N	Mean Rank	Sum of Ranks	z	p
ps8 - s8						
	Negative Ranks	15a	20.63	309.50	-3.302	.001
	Positive Ranks	35b	27.59	965.50		
	Ties	39c				
	Total	89				

As Table 4.37 reveals, after Wilcoxon Signed Rank Test was applied on pre- and post-application responses to Strategy 8 which was *'If I don't understand a word I look it up in a bilingual dictionary'*, it was observed that there was a significant change in the use of this strategy ($z = -2.392$ and $p = 0.017$; $p > 0.05$).

Table 4.38. Wilcoxon Signed Rank Test results for Strategy 10

		N	Mean Rank	Sum of Ranks	z	p
ps10 - s10						
	Negative Ranks	34a	37.09	1261.00	-.110	.912
	Positive Ranks	36b	34.00	1224.00		
	Ties	19c				
	Total	89				

As it is seen in Table 4.38, Wilcoxon Signed Rank Test results for pre-and post-application responses given to Strategy 10, *'When I hear a word during the lesson I note it down'*, reveal that there was not a significant change in the use of this strategy ($z = -0.110$ and $p = 0.912$; $p > 0.05$).

Table 4.39. Wilcoxon Signed Rank Test results for Strategy 11

		N	Mean Rank	Sum of Ranks	z	p
ps11 - s11						
	Negative Ranks	24a	28.00	672.00	-1.640	.101
	Positive Ranks	35b	31.37	1098.00		
	Ties	30c				
	Total	89				

As it is seen in Table 4.39, the Wilcoxon Signed Rank Test which was applied on pre- and post-application responses to Strategy 11 which was *'When I read for pleasure I note down new words'* revealed that there was not a significant change in the use of this strategy (z = -1.640 and p = 0.101; p > 0.05).

Table 4.40. Wilcoxon Signed Rank Test results for Strategy 14

		N	Mean Rank	Sum of Ranks	z	p
ps14 - s14						
	Negative Ranks	29a	34.64	1004.50	-.441	-.659
	Positive Ranks	32b	27.70	886.50		
	Ties	28c				
	Total	89				

As Table 4.40 reveals, Wilcoxon Signed Rank Test results for pre-and post-application responses given to Strategy 14, *'When I see the written form of a word I remember it'*, reveal that there was not a significant change in the use of this strategy (z = -.441 and p = 0.659; p > 0.05).

Table 4.41. Wilcoxon Signed Rank Test results for Strategy 16

		N	Mean Rank	Sum of Ranks	z	p
ps16 - s16						
	Negative Ranks	21a	27.33	574.00	-4.238	.000
	Positive Ranks	51b	40.27	2054.00		
	Ties	16c				
	Total	88				

As it is seen in Table 4.41, Wilcoxon Signed Rank Test results for pre-and post-application responses given to Strategy 16, *'In order to remember a word I connect it with an image'*, reveal that there was a significant change in the use of this strategy (z = -4.238 and p = 0.000; p < 0.05).

Table 4.42. Wilcoxon Signed Rank Test results for Strategy 17

		N	Mean Rank	Sum of Ranks	z	p
ps17 - s17						
	Negative Ranks	28a	34.64	970.00	-.684	.494
	Positive Ranks	37b	31.76	1175.00		
	Ties	24c				
	Total	89				

As Table 4.42 reveals, the results of Wilcoxon Signed Rank Test for the pre- and post- responses given to Strategy 17, *'If I don't understand a word I look it up in a monolingual dictionary'*, showed no significant change in terms of the use of this strategy ($z = -0.684$ and $p = 0.494$; $p > 0.05$).

Table 4.43. Wilcoxon Signed Rank Test results for Strategy 18

		N	Mean Rank	Sum of Ranks	z	p
ps18 - s18						
	Negative Ranks	32a	34.45	1102.50	-.837	.403
	Positive Ranks	38b	36.38	1382.50		
	Ties	18c				
	Total	88				

As it is seen in Table 4.43, the Wilcoxon Signed Rank Test which was applied on pre- and post-application responses to Strategy 18 which was *'I relate new words to the ones I knew before'* revealed that there was not a significant change in the use of this strategy ($z = -.837$ and $p = 0.403$; $p > 0.05$).

Table 4.44. Wilcoxon Signed Rank Test results for Strategy 20

		N	Mean Rank	Sum of Ranks	z	p
ps20 - s20						
	Negative Ranks	18a	28.25	508.50	-4.408	.000
	Positive Ranks	52b	38.01	1976.50		
	Ties	19c				
	Total	89				

As it is seen in Table 4.44, Wilcoxon Signed Rank Test results for pre-and post-application responses given to Strategy 20, *'In order to learn new words I leaf through a dictionary'*, reveal that there was a significant change in the use of this strategy ($z = -4.408$ and $p = 0.000$; $p < 0.05$).

Table 4.45. Wilcoxon Signed Rank Test results for Strategy 23

		N	Mean Rank	Sum of Ranks	z	p
ps23 - s23						
	Negative Ranks	40a	37.49	1499.50	-1.776	.076
	Positive Ranks	29b	31.57	915.50		
	Ties	20c				
	Total	89				

As Table 4.45 reveals, Wilcoxon Signed Rank Test results for pre-and post-application responses given to Strategy 23, *'In order to highlight new words in a text I use colored pencils and markers'*, reveal that there was not a significant change in the use of this strategy ($z = -1.776$ and $p = 0.076$; $p > 0.05$).

Table 4.46. Wilcoxon Signed Rank Test results for Strategy 24

		N	Mean Rank	Sum of Ranks	z	p
ps24 - s24						
	Negative Ranks	23a	30.96	712.00	-1.337	.181
	Positive Ranks	36b	29.39	1058.00		
	Ties	30c				
	Total	89				

As it is seen in Table 4.46, the results of Wilcoxon Signed Rank Test for the pre-and post- responses given to Strategy 24, *'In order to remember words I group them'*, showed no significant change in terms of the use of this strategy ($z = -1{,}337$ and $p = 0{,}181$; $p > 0.05$).

Table 4.47. Wilcoxon Signed Rank Test results for Strategy 25

		N	Mean Rank	Sum of Ranks	z	p
ps25 - s25						
	Negative Ranks	14a	26.61	372.50	-4.615	.000
	Positive Ranks	50b	34.15	1707.50		
	Ties	25c				
	Total	89				

As it is seen in Table 4.47, Wilcoxon Signed Rank Test results for pre-and post-application responses given to Strategy 25, *'I immediately try to use a new word in a speech or writing',* reveal that there was a significant change in the use of this strategy ($z = -4.615$ and $p = 0.000$; $p < 0.05$).

Table 4.48. Wilcoxon Signed Rank Test results for Strategy 28

		N	Mean Rank	Sum of Ranks	z	p
ps28 - s28						
	Negative Ranks	26a	22,96	597,00	-3,037	,002
	Positive Ranks	38b	39,03	1483,00		
	Ties	25c				
	Total	89				

As Table 4.48 reveals, Wilcoxon Signed Rank Test results for pre-and post-application responses given to Strategy 28, '*I remember a word when I relate it to pictures or illustrations'*, reveal that there was a significant change in the use of this strategy ($z = -3.037$ and $p = 0.002$; $p < 0.05$).

Table 4.49. Wilcoxon Signed Rank Test results for Strategy 31

		N	Mean Rank	Sum of Ranks	z	p
ps31 - s31						
	Negative Ranks	37a	34.43	1274.00	-1.103	.270
	Positive Ranks	29b	32.31	937.00		
	Ties	23c				
	Total	89				

As Table 4.49 reveals, the results of Wilcoxon Signed Rank Test for the pre- and post-responses given to Strategy 31 *'I remember a word if I remember where I have*

seen it', showed no significant change in terms of the use of this strategy (z = -1.103 and p = 0.270; p > 0.05).

Table 4.50. Wilcoxon Signed Rank Test results for Strategy 33

		N	Mean Rank	Sum of Ranks	z	p
ps33 - s33						
	Negative Ranks	26a	25.19	655.00	-3.547	.000
	Positive Ranks	44b	41.59	1830.00		
	Ties	19c				
	Total	89				

As Table 4.50 reveals, the results of Wilcoxon Signed Rank Test for the pre- and post-responses given to Strategy 33 *'I remember a word if I relate it to a personal experience'*, showed a significant change in terms of the use of this strategy (z = -3.547 and p = 0.000; p < 0.05).

Table 4.51. Wilcoxon Signed Rank Test results for Strategy 34

		N	Mean Rank	Sum of Ranks	z	p
ps34 - s34						
	Negative Ranks	35a	36.84	1289.50	-.501	.617
	Positive Ranks	34b	33.10	1125.50		
	Ties	20c				
	Total	89				

As it is seen in Table 4.51, Wilcoxon Signed Rank Test results for pre-and post-application responses given to Strategy 34, *'I relate words to words with similar or opposite meaning',* showed no significant change in the use of this strategy (z = -0.501 and p = 0.617; p > 0.05).

Table 4.52. Wilcoxon Signed Rank Test results for Strategy 35

		N	Mean Rank	Sum of Ranks	z	p
ps35 - s35	Negative Ranks	31a	34.52	1070.00	-.641	.521
	Positive Ranks	37b	34.49	1276.00		
	Ties	20c				
	Total	88				

As Table 4.52 reveals, Wilcoxon Signed Rank Test results for pre-and post-application responses given to Strategy 35, *'In order to remember words I relate them to concrete objects'*, reveal that there was not a significant change in the use of this strategy (z = -0.641 and p = 0.521; p > 0.05).

Table 4.53. Wilcoxon Signed Rank Test results for Strategy 39

		N	Mean Rank	Sum of Ranks	z	p
ps39 - s39						
	Negative Ranks	25a	36.82	920.50	-1.910	.056
	Positive Ranks	45b	34.77	1564.50		
	Ties	19c				
	Total	89				

Table 4.53 reveals that Wilcoxon Signed Rank Test results for pre-and post-application responses given to Strategy 39, *'I keep a separate vocabulary notebook',* reveal that there was not a significant change in the use of this strategy (z = -1,910 and p = 0,056; p >0,05).

Table 4.54. Wilcoxon Signed Rank Test results for Strategy 41

		N	Mean Rank	Sum of Ranks	z	p
ps41 - s41						
	Negative Ranks	30a	35.23	1057.00	-1.105	.269
	Positive Ranks	40b	35.70	1428.00		
	Ties	19c				
	Total	89				

Table 4.54 reveals that the results of Wilcoxon Signed Rank Test for the pre- and post- responses given to Strategy 41, *'I learn word while surfing on the Internet'*, showed no significant change in terms of the use of this strategy (z = -1.105 and p = 0.269; p > 0.05)

As a result of this analysis, when all strategies are taken into consideration, although the grand mean of post-application strategies was higher than the grand mean of pre-application strategies, 3.19 and 3.09 respectively, the change was not significant. There was no significant change in strategies that were directly related to the e-portfolio application after the application, either. When these strategies were examined individually, it was seen that strategies 1, 3, 5, 8, 16, 20, 25, 28 and 33 showed significant change after the vocabulary learning e-portfolio application. The use of strategies 11, 17, 18, 24, 35, 39 and 41 showed no significant change after the vocabulary learning e-portfolio application, however, their post-application means were higher than their pre-application means.

Table 4.55. Table of Pre- and Post-application Means of Strategies 11, 17, 18, 35, 39, 41

strategies	Pre-application mean	Post-application mean
S11: note down while reading	2.01	2.25
S17: monolingual dictionary	2.09	2.16
S18: associate with known words	2.94	3.08
S24: group words	2.31	2.54
S35: connect with physical objects	2.93	2.99
S39: keep vocabulary notebook	2.33	2.99
S41: learn from the Internet	3.42	3.61

As Table 4.55 reveals, the use of strategies 10, 14, 23, 31 and 34 showed no significant change after the vocabulary learning e-portfolio application; neither did their post-application means show increase. It can be concluded that, although in total there was not a significant increase in the use of vocabulary learning strategies, the use of nine of the strategies showed a significant increase, the use of seven of the strategies showed increase but not significant, and the use of five strategies did not show any increase.

In this study there were mainly three sources of data which were Pre- and Post-application Questionnaires and the Semi-structured Interviews. The questionnaires aimed to observe any significant change in terms of strategy use and level of learner autonomy after the vocabulary learning e-portfolio application. The interviews were conducted in order to see whether detailed responses taken from the most active 31 participants supported the questionnaire results. In this study it was observed that the results obtained from the pre- and post- application questionnaires were in accordance with the responses given to the semi-structured interview, which were held after the Post-application Questionnaire.

Strategy 1 *'In order to remember words I use them in a sentence'* and Strategy 25 *'I immediately try to use a new word in a speech or writing'* were identified as significant strategies which were also supported by interview responses. 51% percent of the participants involved in the interviews stated that the vocabulary learning e-portfolio application made them *'use the vocabulary learnt in the classroom'*. In addition to this, 35.5 % of the same participants reported that *'using words in sentences'* was a new strategy they developed together with this e-portfolio application and 16.1 % of the interviewees also claimed that as a result of the e-portfolio application they were able to *'build sentences'*.

Another significantly used strategy, Strategy 3, 'I *regularly revise vocabulary outside the classroom'*, was supported by 29% of the participants who claimed that the e-portfolio application helped them to *'learn and revise vocabulary'*.

Strategy 8 *'If I don't understand a word I look it up in a bilingual dictionary'* and Strategy 20 *'In order to learn new words I leaf through a dictionary'* were also significantly changing strategies. 41.9% of the participants stated that the vocabulary learning e-portfolio application *'improved their dictionary use'* and made them *'look up words in the dictionary'*.

Strategy 16 *'In order to remember a word I connect it with an image'* and Strategy 28 *'I remember a word when I relate it to pictures or illustrations'* were also

strategies reported to be used by interviewees. 16 % of the participants involved in the interviews claimed that they *'related words to illustrations'*.

Two of the significantly developed strategies, Strategy 5 *'In order to remember new words in new conditions, I use the words I know in different forms'* and Strategy 33 *'I remember a word if I relate it to a personal experience'* the interviewees showed no agreement. In other words, there were no responses that revealed the use of these strategies.

With two of the non-significant strategies which have higher post-application means; namely, strategies 39 and 41, the interviewees showed agreement, too. For Strategy 39 *'I keep a separate vocabulary notebook'* in total 26% of the interviewees were in agreement. These interviewees either *'kept a separate notebook'*, 9.6%; *'recorded vocabulary on the computer'*, 9.6%; or *'noted vocabulary on the text book'*, 6.4 %.

Finally, for Strategy 41'*I learn word while surfing on the Internet'* 6.4 % of the interviewees reported that at the end of the study they *'became aware that it was possible to learn words from the Internet'* and 12.9 % of them developed '*surfing on the Internet'* as a new strategy for vocabulary learning.

After the e-portfolio application strategies such as *'relating vocabulary to personal experience'*, *'writing repeatedly'*, and *'relating vocabulary to pictures'* appeared in the participants' most frequently used ten strategies. In addition to these, the participants stated in their interviews that after the e-portfolio application they adopted new strategies such as *'using in sentence'*, '*recording and/ or highlighting in the textbook'*, *'using keywords'*, and *'word-mapping'*. These strategies also take place in the most frequently used strategies specified by Cohen (2002), Cohen and Macaro (2007), Hulstijn (1997), Nation (2002), Nation and Meara (2002), Schmitt (1997), Schmitt (2002), Takač (2008).

The participants also claimed that the e-portfolio application was beneficial; in that, they became more skillful in building sentences, the study developed their vocabulary learning, it was easier to retain words in their memory, and it was more

enjoyable to learn vocabulary. These responses are in accordance with Read's (2004b) view that computers have positive impacts on vocabulary learning and Abrami and Barret's (2005) view that e-portfolios increase interest in the learning material. 98.62 % of the interviewees revealed positive attitudes towards the e-portfolio application. This result supports the ideas by Abrami and Barret (2005), Allum (2004), Hickerson and Preston (2000), Huang and Huang (2008), and Yaşar (2005) that technology use and e-portfolios create positive attitudes in learners and that learners recognize technology as a useful tool. The participants in this study also reported that the e-portfolio application improved their computer skills as it is put forth by Abrami and Barret (2005), Acosta and Liu (2006), and Yaşar (2005).

In sum it is seen that to a large extent the interview responses supported the questionnaire results in terms of developing vocabulary learning strategies. 7 out of 9 most significantly developed strategies were also reported to be improved by participants who were included in the interviews. In addition to these, 2 of the strategies that revealed higher means after the vocabulary learning e-portfolio application were reported to be used by interviewees. In parallel to questionnaire results, non-significant strategies were not reported to be used or improved in the interviews, either.

4.5.3. Contribution of Vocabulary Study E-portfolio to Participants' Level of Learner Autonomy

The last research question intended to find out to what extent the e-portfolio application would contribute to students in terms of becoming autonomous learners, to what extent the participants were able to monitor their learning, and whether there would be any progress in their level of autonomy at the end of the e-portfolio application. Both the Pre-application Questionnaire and the Post-application Questionnaire covered items that aimed to find out the participants' strategy use and level of autonomy before and after the vocabulary e-portfolio application. Finally, semi-structured interviews were conducted in order to receive more detailed information about the results of the process and in order to provide data triangulation.

As mentioned in Section 4.4.1, the questionnaires included 21 items in order to specify the participants' level of learner autonomy. To find out whether there was a significant change on the participants' level of learner autonomy after the vocabulary learning e-portfolio application, the average means of both the pre-application and post-application level of autonomy means were computed.

Table 4.56. Grand means of level of learner autonomy before and after the e-portfolio application

	N	Mean
Post-application autonomy	89	2.81
Pre-application autonomy	89	2.99

Both grand means indicated that the participants' level of autonomy fell in the 2.41-3.20 scale range interval; that is, they were neither autonomous nor non-autonomous. As it is seen from the Table 4.55, the grand mean of pre-application level of learner autonomy was higher than the post-application level of autonomy. In order to see whether this decline was a significant change first it was necessary to find out whether these values were of parametric or non-parametric nature. Therefore, One-Sample Kolmogorov-Smirnov Test was applied on these means.

Table 4.57. Result of One-Sample Kolmogorov-Smirnov Test for pre- and post-application level of learner autonomy

		postautonomy	preautonomy
N		89	89
Normal Parametersa	Mean	2.8111	2,9946
	Std. Deviation	.48042	,44057
Most Extreme Differences	Absolute	.091	,071
	Positive	.091	,047
	Negative	-.078	-,071
Kolmogorov-Smirnov Z		.861	.672
Asymp. Sig. (2-tailed)		.449	.757

a. Test distribution is Normal.

As it is seen from Table 4.57, $p > 0.05$ for each value which means that there was a normal distribution for these values. For this reason in order to compute the significance level Paired-sample t-test was conducted.

Table 4.58. Paired-Sample t-test Results for pre-and post-application level of learner autonomy

	Sig.(2-tailed)
Pair 1	
Pre -autonomy	
Post-autonomy	.007

According to the results in Table 4.58, when Paired-sample t-test was applied on pre and post-application levels of learner autonomy there was not a significant difference in the scores pre-application autonomy level (M=2.9946, SD=0.4407) and post-application autonomy level (M = 2.8111, SD = 0.48042); t (89) = 2.748, $p = 0.007$; $p > 0.05$.

The results of the questionnaires indicated that there was a decline in the grand mean of level of learner autonomy after the vocabulary learning e-portfolio application. However, this decline was not significant. Contrary to the questionnaire results the responses given to questions 3A and 3B revealed that most of the interviewees showed behavior that indicated improvement in learner autonomy. 67.74 % of the participants involved in the interviews stated that they provided assignments to their e-portfolio which were initially not given by the researcher. In addition to this, only 1 participant out of 31, which makes 3.22%, claimed that the e-portfolio study did not contribute to them in terms of gaining self-study skills and learner autonomy.

This difference might be as a result of the fact that the interviewees were relatively more interested in the study because they had completed at least 75% of the given assignments. However, the questionnaires were given to all participants, including participants with less than 5 assignments which constituted a percentage of 35.9 and participants with no artifact which constituted a percentage of 13.48, in total forming nearly half of all participants. Taking this fact into consideration, it is undeniable that it

would not be possible for participants who were not involved in the study at all to develop self-study skills or learner autonomy.

Another important point is that in total 22 participants with the percentage of 24.7 reported that they had prepared at least 11 artifacts for their e-portfolio which means they had completed almost all the assignments given or even prepared additional artifacts because the participants were asked to complete 12 assignments in total. As the interviews were held with 31 participants with at least 9 artifacts it is clear that participants who were actively involved in the vocabulary learning e-portfolio application; in fact, benefited from this study in terms of developing self-study skills and learner autonomy. In this sense data obtained from the interview questions 3A and 3B triangulate with this fact.

As for questionnaire results and interview responses for learner autonomy, the situation was different. Although the questionnaire results indicated that there was no significant change in terms of developing self-study skills and learner autonomy, the responses given to the interviews revealed more promising outcomes. 67.74 % of the interviewees prepared extra assignments for the e-portfolio, other than the assignments asked to be prepared by the researcher. Interviewees reported that during the study they felt a need to study and a sense of responsibility, they enjoyed 'doing things' for themselves, they studied regularly, and their life became more organized. They also stated that their computer use became more purposeful, they learnt better and improved themselves, and they developed a positive attitude towards learning vocabulary. All these responses are in line with Fortsyth's (2001) view that the use of computers in language learning promotes positive attitudes to learning and Timuçin's (2006) opinion that computers promote learners to become more active learners. At the end of this study, it was observed that active participation in the e-portfolio application developed self-regulation skills in the participants and technology use in language learning held a potential for developing and promoting learner autonomy, as it was put forth by Abrami and Barret (2006), Figura and Jarwis (2007), Kaur et al. (2007), Schmenk (2005), Shotlekov (n.d.), Thadphoothon (2002), and Yumuk (2010).

The contradiction between the questionnaire results and interview results can be explained when the number of participants with no or less than 5 artifacts and the number of participants with at least 11 artifacts are compared with each other and when it is taken into consideration that the interviewees were the most active 31 participants involved in the study. The result drawn from this analysis is that active participants benefited from the study in terms of developing self-study skills and learner autonomy. However, this result was not reflected in the questionnaire results due to the fact that these active participants were almost half the number of participants who were not involved in the study actively. When all points are taken into consideration, it can be concluded that the interviews carried out on the most active 31 participants triangulated with the questionnaires to a great extent both in terms of developing vocabulary learning strategies and improving level of learner autonomy.

4.6 CONCLUSION

To conclude, this study proved that the vocabulary learning e-portfolio application was fruitful in terms of developing specific vocabulary learning strategies. It was observed that the use of a number of strategies improved at the end of the study. In general, participants were satisfied with the study. Especially participants who were actively involved in the study reported that they benefited from the study in terms of adopting new vocabulary learning strategies. These participants also exhibited their belief in the usefulness of their newly adopted strategies. Moreover, involving computer technology and the Internet in the learning process, in general, created a positive atmosphere in the language classroom and eagerness for better achievement. In addition to strategy development, there have been participants who took the initiative and produced their own artifacts apart from the assignments given by the researcher. As a result, more than one third of the participants reported of increased level of learner autonomy. All in all, despite several limitations, it can be claimed that the study reached its aims.

CHAPTER FIVE
CONCLUSION

5.1. INTRODUCTION

This chapter aims to provide a summary of the study. It also suggests pedagogical implications on the use of e-portfolios in language learning, strategy development, and learner autonomy; it gives an account of the limitations of the study; finally, it puts forth possible suggestions for further study.

5.2. OVERVIEW OF THE STUDY

As stated in the Chapter I there were three main issues that constituted this study; namely, vocabulary learning strategies, e-portfolios, and learner autonomy. Throughout the study it was investigated whether a vocabulary learning e-portfolio would contribute to the development of vocabulary learning strategies and improvement of learner autonomy. Before the study was carried out, the relevant literature had been investigated in terms of vocabulary learning, learner strategies, computer assisted language learning and learner autonomy.

The study of the relevant literature reveals that there have been different attitudes towards the place of vocabulary in language learning. There were periods when vocabulary was completely neglected or, to the contrary, there were periods when vocabulary became an indispensable part of language instruction. For linguists such as Lewis (1990), Nation (2002), Nattinger and DeCarrico (1992) and Willis (1990) knowledge of vocabulary has even become the heart of language learning. It is undeniable that vocabulary is a necessity in language learning because all the other skills; i.e. reading, writing, listening and speaking depend on sufficient vocabulary knowledge and on skills to learn and to enlarge vocabulary.

Another issue of discussion among scholars has been ‘What in fact is word knowledge?’ and ‘What aspects of words should be taught to learners?’. It is clear that vocabulary knowledge is a multi-faceted phenomenon. It is widely accepted that knowing a word is more than knowing its meaning (Ellis, 1997; Ooi & Kim–Seoh,

1996; Zimmerman, 2009). According to linguists such as (Ellis, 1997; Hedge, 2000; Laufer, 1997a; Lewis, 1997; McCarthy, 2003; Nation, 2005; Richards, 1976; Zimmerman, 2009), word knowledge entails aspects such as, a word's frequency and collocations, its appropriate forms and registers, its syntactic behavior, its word parts and grammatical features, its relations to other words, its semantic value, and its different meanings and the nuances in meaning.

Apart from the nature of vocabulary knowledge, an important notion has been the teaching of vocabulary. Coady (1997b), Hedge (2000), Laufer (1997a) and Meara (2005) proposed different points to be taken into consideration in vocabulary teaching. An important discussion among scholars of this field has been whether vocabulary teaching should be incidental or explicit. Names such as Brown (2009), Coady (1997b), Grabe and Stoller (1997), Nation &and Coady (1998), Nation and Waring (1997) and Nagy (1997) claimed that the most effective way of teaching vocabulary was achieved incidentally through extensive reading. However, other names such as Channel 1988 and Oxford and Crookall (1990) believe that vocabulary should be taught explicitly. Other names such as Peribakt and Wesche (1997) and Sökmen (1997) agree that extensive reading would be an ideal way of teaching vocabulary but they also believe that explicit vocabulary teaching should accompany it. Finally, while Meara and Nation (2002), Nation (2002), Nation and Newton (1997) and Nattinger (1988) put forth the importance of communicative activities in vocabulary learning, Hunt and Beglar (2002) emphasized that vocabulary teaching should be a combination of implicit and explicit vocabulary teaching that has to be accompanied by strategy instruction.

Learner strategies started to be discussed in the mid 70's by the studies on "good language learners", Rubin (1975) and Naiman et al. (1978, cited in Cohen & Macaro, 2007) being the most prominent names in this field. Language learning strategies were defined by different scholars such as Cohen and Macaro (2007), Nunan (1991), O'Malley and Chamot (1990), and Oxford (1990). The main features of these strategies and the factors that affect strategy choice are listed by Takač (2008). An important issue is the classification of language learning strategies. Different classifications were put forth by Ellis (1985; cited in Nunan, 1991), Naiman et al. (1978, cited in Cohen &

Macaro, 2007), Rubin (1981, cited in Cohen & Macaro, 2007), Stern (1975, cited in Cohen & Macaro, 2007), Willing (1989, cited in Nunan, 1991). However, the most well-known and universally accepted taxonomies were formed by O'Malley and Chamot (1990), and Oxford (1990). Although these two taxonomies show slight differences, in both taxonomies the main three groups of language learning strategies are named as "Cognitive Strategies", "Metacognitive Strategies" and "Social-Affective Strategies".

Apart from language learning strategies, this study was mostly concerned with vocabulary learning strategies Jurkovič (2006: 24) describes as:

> "the knowledge about what learners do to find out the meaning of new words, retain them in their long–term memory, recall them when needed, and use them in language production"

Different studies were conducted on vocabulary learning strategies in relation to issues such as gender, proficiency level, learning styles, age, learning environment, or learning tasks. Similar to language learning strategies, scholars also studied on classifications of vocabulary learning strategies. Some important names in this field were Ahmed (1989, cited in Takač, 2008), Gu and Johnson (1996, cited in Nation, 2005), Hatch and Brown (2000, cited in Takač, 2008), Nation (2002), Nyikos and Fan (2007), Stoffer (1995, cited in Segler, Paine & Sorace, 2002). However, the most comprehensive and widely-accepted taxonomy was constituted by Schmitt (1997).

This study takes its roots from one of the vocabulary learning strategies; namely, "keeping vocabulary notebooks". Since the participants of this study were adolescents and since they were more interested in computers than they were in producing written work, a modernized version, e-portfolios were chosen as the tool to improve vocabulary learning strategies and learner autonomy.

Incorporating technology in language instruction is, in fact, not a new issue. The first examples of technology in language classes were tape-recorders which later were outdated by language laboratories. The first computers seen in language classrooms appeared in the 1960s, however, they were not practical enough so that they could not become wide-spread until the 1980s. By the 1990s computers became more

manageable and in 1992 a new turning- point arouse; namely, the Internet. The Internet enables learners to explore and to interact with other learners. As a learning tool it is flexible, motivating, widely-available; it promotes positive attitudes towards learning, and it enhances learner autonomy and critical thinking abilities (Forsyth, 2001; Jones & Fortescue, 1991; Thadphoothon, 2002). These developments led to a new area of study – computer assisted language learning. Although, at the beginning, CALL only consisted of some simple software for learning activities, together with the developing technology, it became more sophisticated so that at present it comprises elements such as virtual learning environments, distant learning platforms, concordance databases, computer –mediated communication facilities, different web-applications, web-blogs, social networks, wikis and e-portfolios.

One of these elements, e-portfolio, has been chosen as the main application of this study. In very simple words, e-portfolios are electronic versions of paper –based portfolios. They are a result of developing computer technology and the difficulties in storing and duplicating paper-based portfolios (Montgomery & Wiley, 2004). Beside texts they can include graphic, audio and video materials as well. The artifacts can be stored on web-pages, professional e-portfolio databases, social sharing sites, blogs, wikis, CDs, or e-learning platforms, which was the case in our study. The use of e-portfolios dates back to the 1990's and since then, they have been used as learning and assessment tools. They are expected to lead learners to take control of their learning, to be indulged in a more active learning, and at the end of the process, to become more autonomous learners.

Learner autonomy was another perspective of this study. Dating back to 1979, learner autonomy is described as "the ability to take charge of one's leaning" (Holec, 1981, cited in Cotterall, 2008). Names such as Benson (2001), Dickinson (1987), Little (1991), and Wenden (1991) discussed what learner autonomy is and what it entails. It is widely accepted that there is a relationship between learning strategies and learner autonomy. Especially Cohen (2003), Oxford (2002), Skehan (1998), Yin (2008), and Wenden and Rubin (1987) claim that strategy use leads learners to take responsibility on their learning; thus, it promotes the level of learner autonomy. Learner autonomy is

also believed to be promoted through the use of computer technology. Names such as Gonzales and St.Louis (2008), Schmenk (2008), Schwienhorst (2008), and Shotlekov (n.d) share their views on how CALL and learner autonomy are related to each other.

Having reviewed the related literature on the main elements of the study, and having taken the participants' consent, our vocabulary learning e-portfolio application has been started by the end of October 2009. The study was conducted in Mustafa Kaynak Anatolian High School on three different 9th year classes which were 9A, 9B and 9D. First the 89 participants were introduced with the e-learning platform to be used throughout the study. By November 2009 all three classes that were involved in the study had been subscribed to the virtual class on the e-learning platform and had started sending the assignment prepared by the researcher. At this time the pre-application questionnaire had also been piloted in another class and applied on the classes involved in the study. The e-portfolio application lasted until the beginning of May 2010. During this time the participants were given 12 assignments on the vocabulary they studied in their text books. As soon as the assignments were completed the participants were given the post-application questionnaire. Following this step, through a criterion based sampling, 31 of the participants were determined to go through a semi-structured interview. From the moment the virtual class was opened on the e-learning portfolio until the end of the data collection period, the researcher also kept a researcher's log in order to keep track with the study.

43 girls and 46 boys, most of whom were in the age of 14, were involved in the study and reported to have received 6-8 years of English instruction. 95.5 % of the participants owned their own computer and 97.8 % of them reported to have direct access to the Internet. Most of the participants were able to use Microsoft Word and Microsoft Power Point and had a paper-based portfolio experience whereas 43.8 % of them also had an e-portfolio experience. The participants of the study stated that every day they spent at least one hour surfing on the Internet and most of them pointed out that the Internet contributed to their vocabulary learning.

At the end of 24-weeks e-portfolio application in total 557 assignments were sent to the e-learning platform that was specified to host the vocabulary learning e-

portfolio application. 370 of these assignments were sent by the 9B, the researcher's class. 109 assignments were sent by 9A and 78 of them were sent by 9D. As it is seen not being the teacher of the other two classes affected the number of contributions from the other two classes. In total 12 assignments were given to participants. 13 participants from 9B sent more than 12 assignments to the e-learning platform, whereas in class 9A this number is 2 and in 9D no student sent extra artifacts to their e-portfolio.

The study included three main data collection instruments which were a Pre-application Questionnaire, a Post-application Questionnaire and a Semi-structured Interview. The Pre-application Questionnaire was given before the vocabulary learning e-portfolio application and aimed to collect data on demographic information about the participants, information about their computer use, vocabulary strategies they used before the e-portfolio application and their level of autonomy before the e-portfolio application. The Post-application Questionnaire was given at the end of the 24-week e-portfolio application and it was the same as the Pre-application Questionnaire except that it included an evaluation section instead of the demographic information and computer use sections in the previous questionnaire. The aim of this questionnaire was to receive a general evaluation of the e-portfolio application and to find out whether there had been any change in the participants' strategy use and level of learner autonomy as a result of the e-portfolio application. Finally, after the Post-application Questionnaire a five-question Semi-structured Interview was given to participants who at least did 9 assignments out of 12 which made the 75 % of the given assignments. The purpose of this selection was to obtain reliable responses for the interview questions and to be able to realize this condition active participation in the study was essential. The aims of the interview were to receive more elaborate explanations from the participants concerning the e-portfolio study, to identify participants' perceptions about the e-portfolio study and to provide data triangulation to the questionnaire results.

The Pre-application Questionnaire investigated the use of 41 different strategies and the participants' level of learner autonomy. The data analysis results revealed that among 41 different vocabulary learning strategies the mostly used strategy was 'In order to understand I translate vocabulary into L1' and the least used strategy was 'I make

vocabulary cards'. Among these 41 strategies the use of 21 strategies were expected to show significant change after the e-portfolio application. Considering these 21 strategies the mostly used strategy was 'If I don't understand a word I look it up in a bilingual dictionary'. The least used strategy in this category was 'I write down words while reading for pleasure'.

As for the autonomy section there were 21 questions. When the grand mean and the scale range for the responses of these questions were computed, it was seen that the grand mean was 2.99 and it fell in the interval of 2.61-3.40 which meant that the level of learner autonomy of these participants was 'sometimes'.

The Post-application Questionnaire was the same as the Pre-application Questionnaire except for the seven evaluation questions at the beginning. These evaluation questions aimed to find out the participants' general attitude towards the vocabulary learning e-portfolio application and to investigate the reasons of the low attendance of some student to the study. The responses revealed that 19 participants did not log in the e-learning portal and 12 participants did not send any artifact to the e-portfolio. These participants claimed that they had experienced technical problems, they had had no time or they could not access their accounts. However, these responses do not seem realistic because the researcher was available to help them any time she was at school and she in fact helped other participants who asked for any kind of guidance. Some of these participants stated that they thought the study was 'nonsense' and for that reason they had not contributed to it.

Despite these negative responses the data revealed that among given 66 responses 41 of them signaled a positive attitude towards the study. 17 of these 41 responses for example claimed that the study 'improved their vocabulary learning'. 25 participants showed a negative attitude towards the study. 10 of these participants claimed that the study was 'boring'. It was interesting to see that, apart from the researcher's virtual course, 3 participants subscribed to other courses on the e-learning portfolio and downloaded learning materials from these online courses. 6 of the participants created or tried to create wiki pages, which was one of the applications on the e-portfolio platform. Participants also reported to form online friendships with other

users of the e-learning platform and they showed interest to the games and links provided on the e-portfolio platform. These results indicate that although some participants developed a negative attitude towards the study, most of the participants held a positive attitude and showed signs of self-study abilities.

As for strategy development and learner autonomy, the questionnaire included the same questions as the first questionnaire so that it was possible to make a comparison between the strategies used before and after the application and the level of autonomy before and after the application. The statistical results revealed that, taking all vocabulary learning strategies, the grand mean of Post-application Questionnaire was higher than the grand mean of the Pre-application Questionnaire. However, this change was not significant. 21 strategies were expected to change after the e-portfolio application. However, the pre- and post- application grand means of these strategies did not show any significant change either. On the other hand when these 21 strategies were analyzed individually it was seen that the use of 9 of these strategies showed significant change after the vocabulary learning e-portfolio application. The use of 7 of these 21 strategies did not show significant change, however, their post-application means were higher than their pre-application means. The use of 5 strategies did not show any expected change.

As for responses related to learner autonomy development, which was another section of the Post-application Questionnaire, contrary to the expectations, the grand mean of learner autonomy questions was lower than it was before the application. However, this decrease was not of significant level. When the scale range was computed it again fell in the interval 2.61-3.40, which meant the level of autonomy remained the same after the e-portfolio application.

The final data collection instrument was the Semi-structured Interview. In total the interview consisted of five questions, three of which were related to strategy development. The responses given to these three questions were in accordance with the questionnaire results. Seven out of nine significantly developed strategies were reported by interviewees to be used after the e-portfolio application. In addition to these, two of the non-significant strategies with higher means were also stated to be used by the

interviewees. None of the non-significant strategies were reported to be used by the interviewees.

The last two questions of the interview were related to learner autonomy development. The responses given by interviewees showed that with the percentage of 67.74 most of them prepared extra assignment for their e-portfolio. In addition, 30 out of 31 interviewees claimed that the vocabulary learning e-portfolio application had been beneficial to them. Unlike the questionnaire results, the responses given to the interview signaled a positive attitude towards the e-portfolio application in terms of learner autonomy development. The source of this discrepancy is speculated to be the result of the fact that the questionnaires were given to all participants while the interviews were carried out with the most active 31 participants. Since the questionnaire was given to all participants it was not surprising to receive negative responses because 49.4% of the participants either did not produce any assignment or prepared less than five assignments. It is undeniable that it is impossible to receive positive responses from participants who had not contributed to the study at all. On the other hand active participants, who did at least 75 % of given assignment, developed a positive attitude towards the study and reported to have benefitted from the vocabulary learning e-portfolio application. As a result, it can be concluded that, despite its limitations, the study has been fruitful to our participants and to the researcher.

5.3. PEDAGOGICAL IMPLICATIONS

This study suggests several pedagogical implications. One of these is that, e-portfolio studies can be part of the mainstream education and can be systematically implemented especially in schools with computer laboratories. Certain class hours in certain intervals can be allocated to study in the computer laboratory on e-portfolios.

E-portfolios have already been implemented in writing and reading classes. They can also be used to learn grammar. Vocabulary e-portfolios can be integrated with other skills like reading, writing and grammar. Provided that necessary technical equipment and skills are present, listening and speaking can also be part of an e-portfolio study.

In order to develop strategy awareness, before each e-portfolio assignment, specific strategies that are desired to be developed can be introduced to learners and assignments can be designed according to the strategy to be developed. In other words, e-portfolios can be integrated with deliberate strategy instruction.

Other web formats than e-learning platforms can be used; such as blogs, web-forums, e-mail groups, social sharing networks or simply CDs.

E-portfolios can be used as assessment tools. One of the grades given to learners can be given according to their performance on the e-portfolio study.

E-portfolio studies can also be run together with learner logs kept at certain intervals so that the learners develop an insight on what they have been doing or what they need to do to become better achievers. This may also contribute to the development of learner autonomy.

5.4. LIMITATIONS OF THE STUDY

This study entailed several limitations. The most important limitation was that the researcher was the teacher of only one group among the three groups that were involved in the study. The results of this situation can be clearly observed when the numbers of artifacts sent to the e-portfolio from each class are examined. While the researcher's class sent 370 assignments the other classes sent 104 and 78 assignments, respectively. Both numbers were rather low when compared to the assignments sent by the researcher's class. Since the researcher was not the teacher of the other two classes she had to rely on the other teachers who, unfortunately, were not able to encourage their students to fulfill the tasks as required. This situation also affected the questionnaire results because the students in the other two classes showed a rather negative attitude towards filling the questionnaires. Moreover, since they completed only a small number of assignments, they were most probably not able to evaluate the study properly.

Apart from this, another limitation was that, since the researcher intended to allocate one class hour to the study in the computer laboratory, there were not many

web applications available to be used from the laboratory because of the filter system in state schools. For instance, it is not possible to visit blog pages and social sharing networks from schools. Web-forums require special software which most computers in school computer laboratories fail to operate properly. In addition to this, the Internet speed was not satisfactory in many instances. Thus, participants had difficulties in sending their artifacts to their e-portfolios from time to time. In fact, the study would have been more fruitful if it had been carried out on other alternative web-applications such as web-blogs because participants would be able to see their peers' works and comment on them. If it had been possible for all students to have access to the Internet from their homes regularly, web-blogs would have been a better alternative.

Finally, there were limitations related to the e-learning platform on which the e-portfolio study was carried out. Since the other two more sophisticated versions of 'Dokeos' had to be purchased either individually or institutionally, the only choice was the 'free' version which was rather limited. One of the most important short-coming was that, ones the assignments were sent to individual folders it was not possible for other students to see their peers' works. However, if they could see each other's artifacts they would have the chance to comment on them or be inspired by them. This way the e-portfolio study could have been more interactive. In addition to this, the e-learning platform used in the study allowed only files in 'word' or 'power point' formats with the maximum size of 30KB. Thus, although they desired to do so, the participants were not able to use videos in their studies. Lastly, some features like 'glossary', 'agenda' or 'announcements' could only be operated by the teacher. For this reason, although the participants aimed to contribute to the e-portfolio study using these features, they were not able to perform them as they desired.

5.5 PROSPECTS FOR FURTHER RESEARCH

This study aimed to find out whether a vocabulary learning e-portfolio would contribute to 9th grade Anatolian high school students' strategy development and learner autonomy. Here are some possible research ideas that can be conducted on strategy development and learner autonomy improvement.

Since in this study the researcher was the teacher of only one class, not being able to maintain equal conditions and due to reliability factors, it was not possible to form an experimental group and a control group. In conditions where experimental and control groups are possible to be maintained, it would be possible to detect the effects of an e-portfolio application more clearly.

E-portfolio studies have been conducted on fields like reading and writing in terms of skill development. Further studies can be conducted on strategy development on different skills.

In this study 41 different strategies were included in the questionnaires. Some of these strategies were similar to each other, and some others did not seem to be applicable. Thus this study can be conducted with less number of strategies.

This study can also be conducted preceding and following a strategy instruction period in order to see whether a deliberate strategy instruction would contribute to learners' strategy development.

The study can be conducted on different age groups and different educational levels, especially with more serious and responsible learners such as university preparatory school students or university students who study in departments related to foreign languages.

Finally, this study investigated two different domains of learning process; namely, strategy development and learner autonomy. In order to be able to focus on each concept in more detail, these two domains could be studied separately rather than together in one study.

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APPENDICES

APPENDIX 1: STUDENT CONSENT

BİLGİLENDİRMELİ İZİN BELGESİ

Bu izin belgesi araştırıcı Kısmet ÖĞMEN' in yürütmekte olduğu ***" E-portfolyo Yoluyla Kelime Öğretiminin 9.sınıf Anadolu Lisesi Öğrencilerinin Kelime Öğrenme Stratejilerine ve Öğrenir Özerkliğine Olan Etkisi"*** konulu yüksek lisans tezine toplanacak veriler ve bu çalışmada yer alacak katılımcılara ait esasları belirlemek üzere düzenlenmiştir. Lütfen aşağıdaki maddeleri dikkatle okuyunuz. Okuduktan sonra size ayrılmış bölüme isminizi yazınız ve imzanızı atınız.

Çalışmanın Amacı, Süreci ve İşleyişi:

Bu çalışmanın amacı, Anadolu lisesi 9 sınıf öğrencilerinde mevcut kelime öğrenme stratejilerini ve öğrenir özerkliği düzeyini saptamak; e-portfolyo kullanarak kelime öğretiminin, öğrencilerde kelime öğrenme stratejisi geliştirmeye ve öğrenir özerkliği sağlamaya olan etkisi belirlemek ve bu tür bir kelime öğrenme yönteminin kelime öğrenme stratejileri geliştirmeye ve öğrenir özerkliği sağlamaya ne oranda katkı sağladığını ölçmektir.

Çalışmanın veri toplama evresi Ekim 2009 tarihinde başlayıp, Mayıs 2010 tarihinde sona erecektir. Araştırıcı bu süreç boyunca notlar tutarak, sürece yönelik gözlemlerini kayıt altına alacaktır.

Çalışmanın veri toplama evresi dört adımda gerçekleştirilecektir. Birinci adım, çalışma öncesi durum tespiti sağlamaya yönelik ilk anketin uygulaması; ikinci adım, e-portfolyo oluşturma sürecinin gerçekleştirilmesi; üçüncü adım, çalışma sonrası öğrenci görüşlerini almaya yönelik yarı yapılandırılmış görüşmelerin yapılması ve son adım, çalışma sonu durum tespitine yönelik son anketin uygulanması olacaktır.

Çalışma, tüm sürecin tamamlanmasından sonra, İngiliz Dili Eğitimi alanında bir yüksek lisans tezi ve ulusal ve uluslararası bilimsel dergilerde makale olarak yayınlanacak, kongrelerde bildiri olarak sunulacaktır.

Katılımcılara Yönelik Beklentiler:

Çalışmaya katılım gönüllülük esasına bağlı olmakla beraber, çalışmanın sağlıklı bir sonuca ulaşması için, çalışmanın başında çalışmaya dâhil edilen katılımcıların, yürütülen çalışmanın gereklerini yerine getirmeleri beklenmektedir. Çalışmanın gereklerini tamamen veya kısmen yerine getirmemek her hangi bir ceza gerektirmeyecektir ancak bu durumdaki katılımcılar çalışmanın sağlayacağı faydalardan mahrum kalmış olacaklardır.

Çalışmanın Katılımcılara Sağlayacağı Yararlar:

Katılımcılar çalışma süresince yeni bir yöntemle kelime öğrenmelerini değerlendirme fırsatı bulacaklardır. Çalışma sonunda katılımcıların mevcut kelime öğrenme stratejilerine yenilerini eklemeleri, yetersiz olan mevcut stratejilerini daha etkili hale dönüştürebilmeleri ve kendi öğrenmesini kontrol edebilen, kendi kendine çalışma becerisi geliştirebilen bireyler olma yolunda adım atmış olmaları ön görülmektedir.

Araştırıcının Yükümlülükleri:

Çalışmada araştırıcı, anketleri düzenlenmesinden ve uygulanmasından, e-portfolyo sürecinde verilecek ödevlerin belirlenmesinden, çalışma sonunda yapılacak yarı yapılandırılmış görüşmelerin hazırlanmasından ve uygulanmasından ve çalışma sürecini izleyen gözlem notlarının tutulmasından birinci derecede sorumludur.

Araştırıcı ayrıca çalışma süresince katılımcıların karşılaşabilecekleri sorunların giderilmesinden, katılımcıların çalışma süreci ile ilgili olarak bilgilendirilmesinden, toplanan verilerin korunmasından ve bu veriler ışığında çalışmanın değerlendirmesinin yapılmasından da sorumludur.

Gizlilik İlkesi:

Çalışma süresince toplanacak her türlü veride (anketler, görüşmeler, araştırıcı notları) hiçbir şekilde katılımcıların isimleri kullanılmayacaktır. Toplanan veriler araştırıcı tarafından korunacaktır. Çalışma verilerine ve veri toplama araçlarına hiçbir şekilde dışarıdan erişim sağlanmayacaktır. Bu veriler ve veri toplama araçları hiçbir şekilde yetkili olmayan şahıslarla paylaşılmayacaktır. Çalışma verilerine erişim, ancak araştırmacı, araştırmacının çalışmasını yöneten öğretim üyesi ve çalışma sürecini izleyen değerlendirme jürisine açık olacaktır.

Araştırıcı İle İletişim:

Çalışma katılımcıları çalışma ile ilgili olarak karşılaştıkları sorunları veya sormak istedikleri soruları araştırmacıya şahsen veya e-mail yoluyla iletebilirler. Katılımcıların araştırmacıya ulaşabilecekleri e-mail adresi **kogmen@yahoo.com** dur. Araştırmacı Pazartesi, Çarşamba ve Cuma günleri tüm gün, Salı öğleden sonra ve Perşembe sabahtan okulda görüşmeye uygun olacaktır.

Araştırıcı Taahhüdü:

Ben Kısmet ÖĞMEN, bu çalışmanın yürütücüsü olarak, çalışmanın zamanında bitirilebilmesi ve araştırmanın sağlıklı bir şekilde yürütülebilmesi için gerekli veri toplama araçlarını zamanında, eksiksiz olarak hazırlayıp değerlendireceğime; katılımcıların her türlü sorununda ve sorusunda yardımcı olacağıma ve toplanan verilerin saklanmasında ve gizliliğinin korunmasında gereken titizliği göstereceğime söz veririm. İmza:

Katılımcı Onayı:

Ben _____ yukarıda belirtilen maddeleri okudum. Buna dayanarak, çalışmanın gerektirdiği yükümlülükleri yerine getirmeye söz veriyorum ve çalışma sırasında toplanan verilerin, gizliği korunmak şartıyla, kullanılmasına izin veriyorum.

İmza:

APPENDIX 2: PRE-APPLICATION QUESTIONNAIRE

Sevgili Öğrenciler,

Elinizdeki anket " E-portfolyo Yoluyla Kelime Öğretiminin 9.sınıf Anadolu Lisesi Öğrencilerinin Kelime Öğrenme Stratejilerine ve Öğrenir Özerkliğine Olan Etkisi" konulu yüksek lisans tezine veri toplamak amacıyla hazırlanmıştır. Vereceğiniz cevaplar daha etkili bir kelime öğrenme ve öğretme modeli geliştirilmesinde yardımcı olacaktır. Soruların belli bir doğru cevabı yoktur. O yüzden lütfen soruları özgürce ve samimiyetle cevaplayınız. Her bir soruyu dikkatle okuyarak eksiksiz yanıtlamaya ve atlanmış soru bırakmamaya çalışınız. İsminizi yazmayınız.

Katkınız ve ayırdığınız zaman için şimdiden teşekkürler.

Kısmet ÖĞMEN

BÖLÜM 1.

Aşağıdaki soruları okuyunuz ve kendinize uygun şıkkı işaretleyiniz.

1) Yaşınız : 2) Cinsiyetiniz: ***( ) Kız ( ) Erkek***

3)Kaç yıldır İngilizce öğreniyorsunuz? ***( ) 3-5 yıl ( ) 6-8 yıl ( )8 yıldan fazla***

4) Sizce İngilizceniz nasıl?

( ) Çok iyi ( ) İyi ( ) Emin değilim ( ) Orta seviyede ( ) Kötü

5) Sizce İngilizce öğrenmek nasıl?

( ) Çok kolay ( ) Kolay ( ) Zor değil ( ) Zor ( ) Çok zor

6) Aşağıda verilen İngilizce ile ilgili bilgi ve beceri alanlarında ne oranda zorluk çekiyorsunuz?

	Asla	**Nadiren**	**Bazen**	**Çoğu kez**	**Her zaman**
gramer (dilbilgisi)					
kelime					
okuma –anlama					
dinleme- anlama					
konuşma					
yazma					

BÖLÜM 2.

Aşağıdaki soruları okuyunuz ve kendinize uygun şıkkı işaretleyiniz.

1) Bilgisayar kullanabiliyor musunuz? ***( ) Evet ( ) Hayır***

2) Evinizde size veya ailenize ait bir bilgisayar var mı***?*** ***( ) Evet ( ) Hayır***

3) Bilgisayarda hangi programları kullanabiliyorsunuz?

( ) Word ( ) Excel ( ) Power Point ( ) diğer_____
(belirtiniz)

4) Internet kullanıyor musunuz? ***( ) Evet ( ) Hayır***

5) Internet kullanıyorsanız nerede kullanıyorsunuz? *(birden çok seçenek işaretleyebilirsiniz)*

( ) Kullanmıyorum ( ) Evde ( ) Arkadaşımın/ Akrabamın/ Komşumun evinde ( ) İnternet kafede ( ) Okulda
( ) diğer_____ (belirtiniz)

6) Okul zamanı hafta içi bilgisayar başında günde ortalama ne kadar zaman geçiriyorsunuz?

( ) Kullanmıyorum ( ) 1 saatten az ( ) 1-3 saat aras ( ) 3 saatten fazla

7) Hafta sonu ve tatillerde bilgisayar başında günde ortalama ne kadar zaman geçiriyorsunuz?

( ) Kullanmıyorum ( ) 2 saatten az ( ) 2-5 saat arası ( ) 5 saatten fazla

8) Okul zamanı hafta içi günde ne kadar süre internet kullanıyorsunuz?

( ) Kullanmıyorum ( ) 1 saatten az ( ) 1-3 saat arası ( ) 3 saatten fazla

9) Hafta sonu ve tatillerde günde ne kadar süre internet kullanıyorsunuz?

( ) Kullanmıyorum ( ) 2 saatten az ( ) 2-5 saat arası ( ) 5 saatten fazla

10) Bilgisayar ve interneti ne amaçla kullanıyorsunuz? *(birden çok seçenek işaretleyebilirsiniz)*

( ) Oyun oynamak ( ) Mail paylaşımı ( ) Ders çalışmak ( ) Sohbet etmek ( ) Sosyal paylaşım sitelerinde zaman geçirmek ( ) Araştırma yapmak ( ) İngilizce öğrenmek

( ) diğer_____ (belirtiniz)

11) Bilgisayar ve internet kullanımının İngilizce bilginizi arttırmak konusunda ne oranda bir katkısı olduğunu düşünüyorsunuz?

( ) Her zaman ( ) Çoğu kez ( ) Bazen ( ) Nadiren ( ) Hiçbir zaman

12) Bilgisayar ve internet kullanımının İngilizce bilginizi arttırmak konusunda herhangi bir katkısı olduğunu düşünüyor iseniz, ne şekilde bir katkısı oluyor? Belirtiniz.

_____
_____
_____
_____

13) Daha önce uzaktan eğitim aracılığıyla (= internet yoluyla evden veya herhangi bir bilgisayar ortamından) bir ders izlediniz mi?
( ) Evet ( ) Hayır

14) Uzaktan eğitim aracılığıyla bir ders izlediyseniz ne tür bir eğitim faaliyetinde bulundunuz? *(birden çok seçenek işaretleyebilirsiniz)*

( ) Dynet ( ) Eğitim CD leri izlemek ( ) İnternette eğitim ile ilgili sitelerden video izlemek ( ) Uzaktan eğitim amacıyla kurulmuş sitelerden verilen dersleri izleyip istenen ödevleri yapmak ( ) Eğitim ile ilgili sitelerden bir konuyu izleyip konuyla ilgili etkinlikleri yapmak

15) Daha önce portfolyo (=öğretmen tarafından verilmiş belli ödevlerin bir plastik veya karton dosyada toplanıp değerlendirilmesi) çalışması yaptınız mı?
( ) Evet ( ) Hayır

16) Daha önce e-portfolyo (= öğretmen tarafından verilmiş belli ödevlerin CD, internet sitesi, blog vb. bir elektronik ortamda toplanıp değerlendirilmesi) çalışması yaptınız mı?
( ) Evet ( ) Hayır

BÖLÜM 3.

Bu bölümde aşağıdaki ifadeleri okuyup sizin durumunuza en uygun olan seçenekteki kutucuğa işaret koyunuz.

	Hiçbir zaman 1	**Nadiren 2**	**Bazen 3**	**Çoğu kez 4**	**Her zaman 5**
1.Hatırlamak için yeni kelimeleri bir cümlede kullanırım.					
2.Kelime listeleri yapıp yanlarına anadilimdeki karşılıklarını yazarım.					
3.Ders dışında kelimeleri düzenli olarak tekrar ederim.					
4.Seyrettiğim film ve TV programlarından kelimeler öğrenirim.					
5.Hatırlamak için, yeni durumlarda, bilindik kelimeleri değişik şekillerde kullanırım.					
6. Öğretmenimden kelimenin anlamını açıklamasını isterim.					
7. Bir kelimeyi defterde, kitapta veya tahtadaki yerini anımsamak yoluyla hatırlarım.					
8. Bir kelimeyi anlamazsam İngilizce-Türkçe bir sözlüğe bakarım.					
9. Bir şekilde benzer olan kelimeleri hatırlarım.					
10. Derste yeni bir kelime duyunca hemen yazarım.					
11. Zevk için kitap veya dergi okurken, kelimeleri					

yazarım.					
12. Kelime kartları yaparım.					
	Hiçbir zaman 1	**Nadiren 2**	**Bazen 3**	**Çoğu kez 4**	**Her zaman 5**
13. Anlamını tahmin etmek için yabancı kelimeler ile anadilimdeki kelimeler arasında ses ve anlam bakımından benzerlikler ararım.					
14. Bir kelimeyi yazılmış olarak görürsem hatırlarım.					
15. Hatırlamak için bir kelimeyi tekrar tekrar sesli olarak söylerim.					
16. Hatırlamak için bir kelimenin anlamını bir şekil ile ilişkilendiririm.					
17. Bir kelimeyi anlamazsam İngilizce-İngilizce bir sözlüğe bakarım.					
18. Yeni kelimeleri, daha önce bildiğim kelimelerle ilişkilendiririm.					
19. Hatırlamak için kelimeleri tekrar tekrar yazarım.					
20. Yeni kelimeler öğrenmek için sözlük karıştırırım.					
21. Karmaşık kelimeleri hatırlarım çünkü dikkat çekerler.					
22. Anlayabilmek için kelimeleri anadilime çeviririm.					
23. Bir parça içinde yeni kelimeleri işaretlemek için renkli kalemler ve vurgulayıcılar kullanırım.					
24. Hatırlayabilmek için kelimeleri gruplandırırım.					
25. Yeni öğrendiğim bir kelimeyi hemen bir konuşmada veya yazıda kullanmaya çalışırım.					
26. Bir kelimeyi hatırlamak için zihnimde tekrar ederim.					
27. Yeni bir kelimenin anlamını içerikten tahmin etmeye çalışırım.					
28. Bir kelimeyi resimler, çizimler veya şekiller ile bağdaştırırsam hatırlarım.					
	Hiçbir zaman	**Nadiren**	**Bazen**	**Çoğu kez**	**Her zaman**

	1	2	3	4	5
29.Yabancı dilde şarkılar dinlerim ve sözlerini anlamaya çalışırım.					
30. Yabancı dilde kitap veya dergi okurken kelimeler öğrenirim.					
31. Bir kelimeyi nerede geçtiğini anımsarsam hatırlarım.					
32. Bilgisayar oyunlarından kelimeler öğrenirim.					
33. Bir kelimeyi, onunla kişisel bir deneyimimi birleştirirsem hatırlarım.					
34. Kelimelerle benzer veya zıt anlamlı başka kelimeler arasında bağlantı kurarım.					
35. Kelimeleri hatırlayabilmek için onlarla somut cisimler arasında bağlantı kurarım.					
36. Başkalarından beni kelimeler konusunda test etmelerini isterim (örn. Anne-babam, kardeşlerim, arkadaşlarım)					
37. Bir kelimeyi beğenirsem onu hatırlarım.					
38. Kelimeleri hatırlamak için arkadaşlarımla çalışırım.					
39. Ayrı bir kelime defteri tutarım.					
40. Kelimeleri sadece sınavlardan önce tekrar ederim.					
41. İnternette gezerken kelime öğrenirim					

BÖLÜM 4.

I. Bu bölümde aşağıdaki ifadeleri okuyup sizin durumunuza en uygun olan seçenekteki kutucuğa işaret koyunuz.

	Hiçbir zaman 1	**Nadiren 2**	**Bazen 3**	**Çoğu kez 4**	**Her zaman 5**
1. İyi bir İngilizce öğrenebilme yeteneğine sahip olduğumu düşünüyorum.					
2. İngilizce çalışma konusunda boş zamanımı iyi kullanabildiğimi düşünüyorum.					
3. Derse girmeden önce o gün işlenecek konulara bakarım.					
4. Ders sırasında verilen görevleri zamanında bitirebildiğimi fark ediyorum.					
5. Günlük tutarak, o günün değerlendirmesini yazarak v.b. yollarla çalışmamın bir kaydını tutarım.					
6. Kendi kendime seçtiğim sınav kağıtları ile kendime sınav yaparım.					
7. İlerleme kaydettiğimde kendimi alışverişe gitmek, oyun oynamak v.b. bir faaliyetle ödüllendiririm.					
8. Pratik yapmak ve dili öğrenmek için ders dışı faaliyetlerde bulunurum.					
9. Ders sırasında ikili/ grup çalışması, canlandırma gibi etkinliklerde yer almak için fırsatlar yakalamaya çalışırım.					
10. İngilizce çalışırken güçlü ve zayıf olduğum noktaları biliyorum.					
11. Ne çok zor ne çok kolay, kendi seviyeme uygun kitaplar ve alıştırmalar seçerim.					

II. Verilen ifadeleri dikkatli bir şekilde okuyarak size göre en uygun seçeneği işaretleyiniz. Lütfen her soruda sadece tek bir seçenek işaretleyiniz.

12. İngilizce' yi _____ öğreniyorum.

A) ailem istediği için
B) merakım olduğu için
C) iyi bir iş sahibi olayım ve okuyacağım alana katkısı olsun diye.
D) film, müzik, spor gibi alanlarda İngiliz kültürüne olan ilgimden ötürü.
E) C ve D de belirtilen sebeplerden ötürü.

13. Bence öğrenci-öğretmen ilişkisi _____ilişkisine benzer.

A) alıcı ve verici
B) ham madde ve üretici
C) müşteri ve mağaza sahibi
D) partnerlerin/ arkadaşların
E) keşfeden ve yönlendiren

14. Bence İngilizcedeki başarım veya başarısızlığım temelde _____bağlıdır.

A) şans veya kadere
B) İngilizce çalıştığım çevreye
C)çalışmalarımı destekleyen donanıma
D) öğretmenlere
E) kendime

15. Öğrencilerin çalışma planını öğretmenlerle beraber hazırlaması yönündeki düşünceye_____.

A) kesinlikle katılıyorum
B) katılıyorum
C) ne katılıyorum ne katılmıyorum
D) karşı çıkıyorum
E) kesinlikle karşı çıkıyorum

16. Öğretmen cevaplamamız için sorular sorduğunda, ben çoğunlukla _____.

A) diğerlerin cevaplamasını beklerim
B) düşünür ve cevap vermeye hazırlanırım
C) kitaplara ve sözlüklere bakarım
D) öğretmenle beraber sorulara açıklık getiririm
E) ikili veya grup tartışmalarına katılmak isterim

17. Bilmediğim yeni bir kelimeyle karşılaşırsam genellikle_____.

A) okuyup geçerim
B) başkalarına sorarım
C) anlamını tahmin ederim
D) B ve E şıkları beraber
E) sözlükten bakarım

18. Hata yaptığımda _____.

A) olmalarına izin veririm (önemsemem)
B) öğretmenlerimin beni düzeltmesini isterim
C) sınıf arkadaşlarımın beni düzeltmesini isterim
D) başkalarının beni düzeltmesini isterim
E) kitap ve sözlüklerden yararlanırım

19. Daha önce kullanmadığım bir teknolojiyi kullanmam istendiğinde (örn. internette tartışma)_____.

A) genellikle yeni beceriler öğrenmeye çalışırım
B) başkalarını izleyerek öğrenirim
C) endişelenirim ama önemli değil
D) ertelerim ve kaçınmaya çalışırım
E) kullanmamak için direnirim

20. İngilizce çalışırken benim için en yararlı yol_____.

A) not tutmaktır
B) mekanik ezber yapmaktır
C) dilbilgisi, çeviri, kelime v.b alıştırmaları yapmaktır
D) sınıflandırma, gruplandırma ve karşılaştırma yapmaktır
E) grup tartışmalarıdır

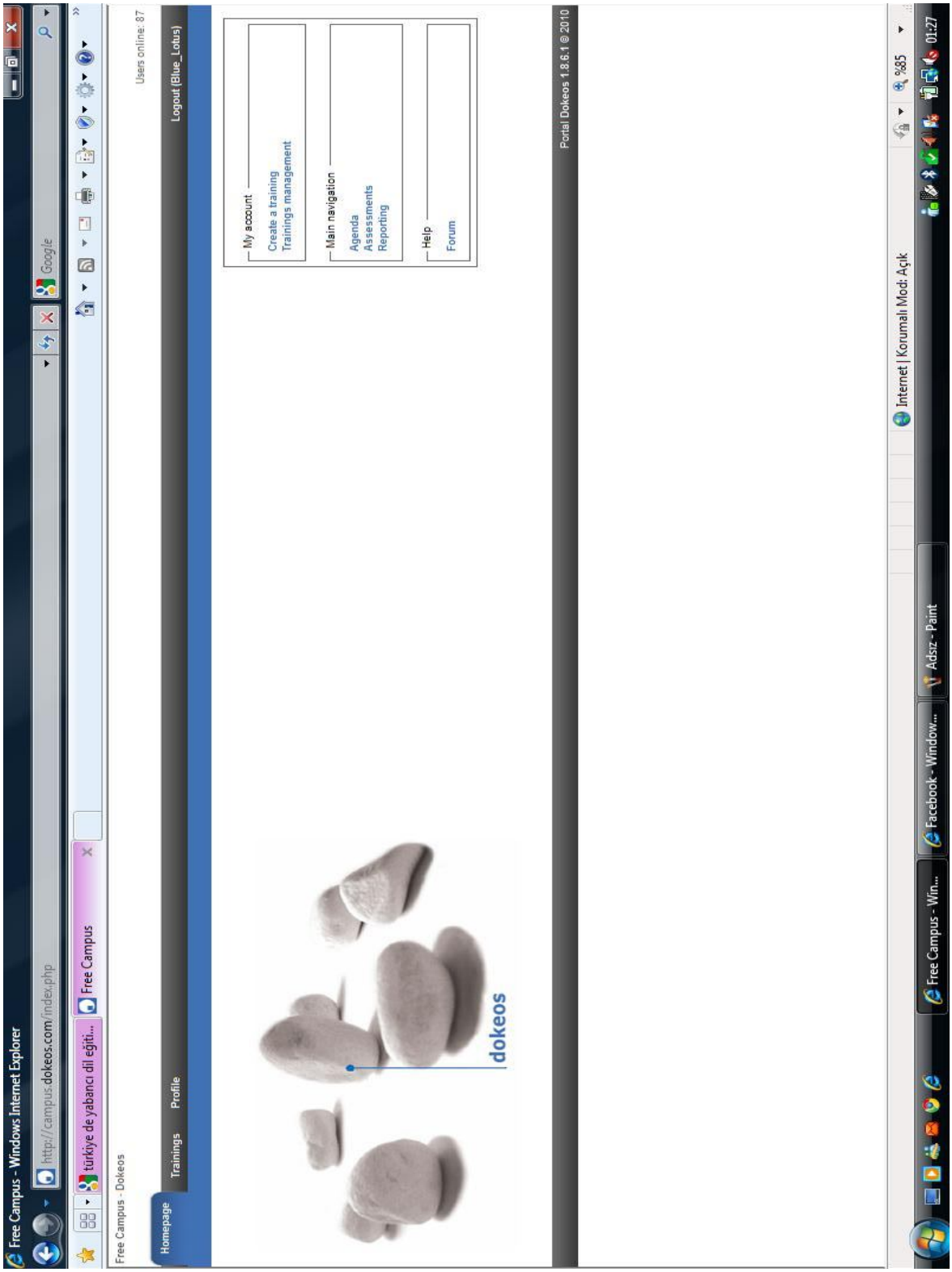
21. Çalışmalarımda genellikle _____tarafından seçilmiş materyaller kullanırım.

A) sadece öğretmenler
B) çoğunlukla öğretmenler
C) öğretmenler ve benim
D) çoğunlukla benim
E) sadece benim

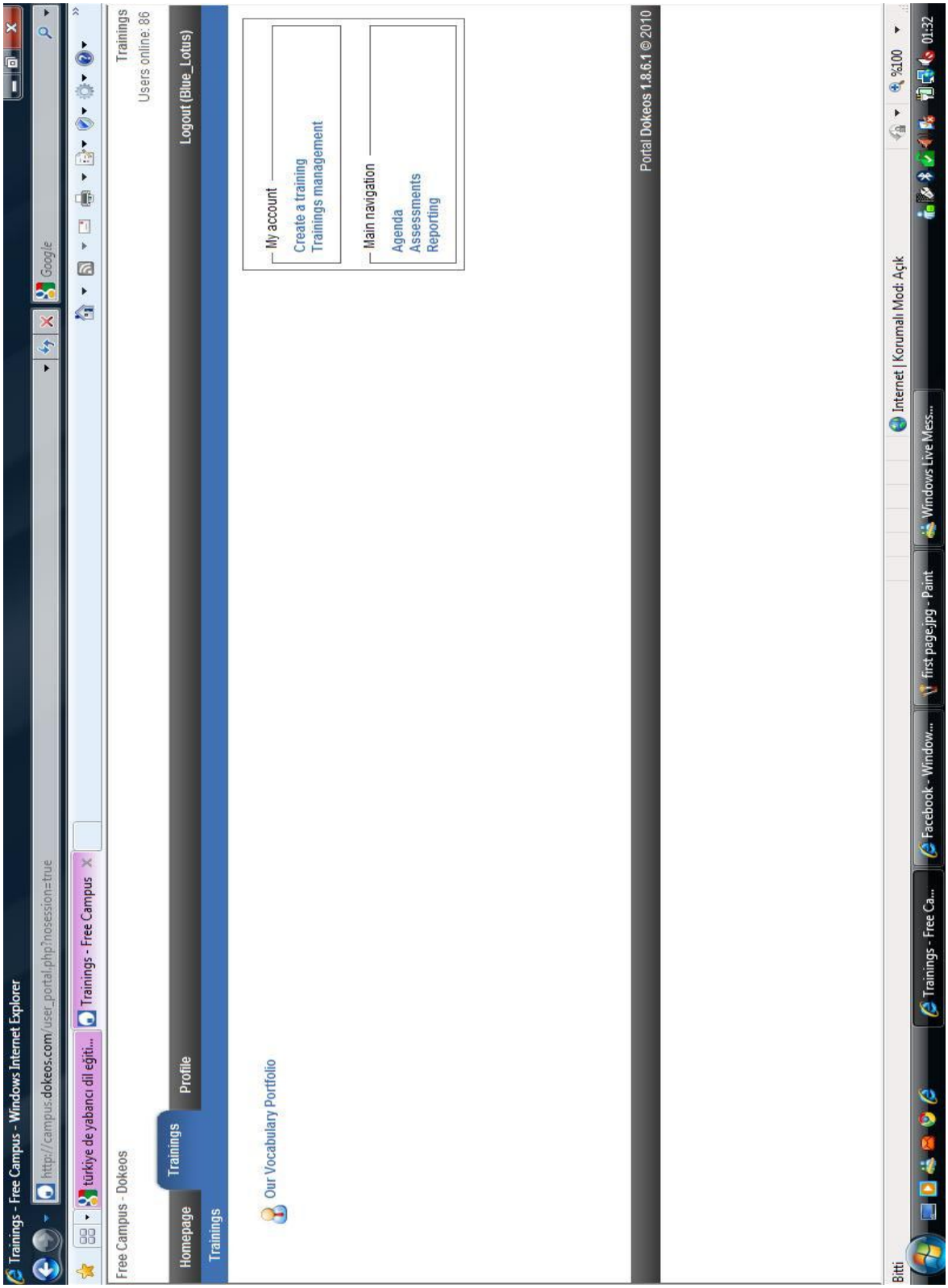
KATILIMINIZ İÇİN TEŞEKKÜRLER

APPENDIX 3: SAMPLE PAGES FROM DOKEOS

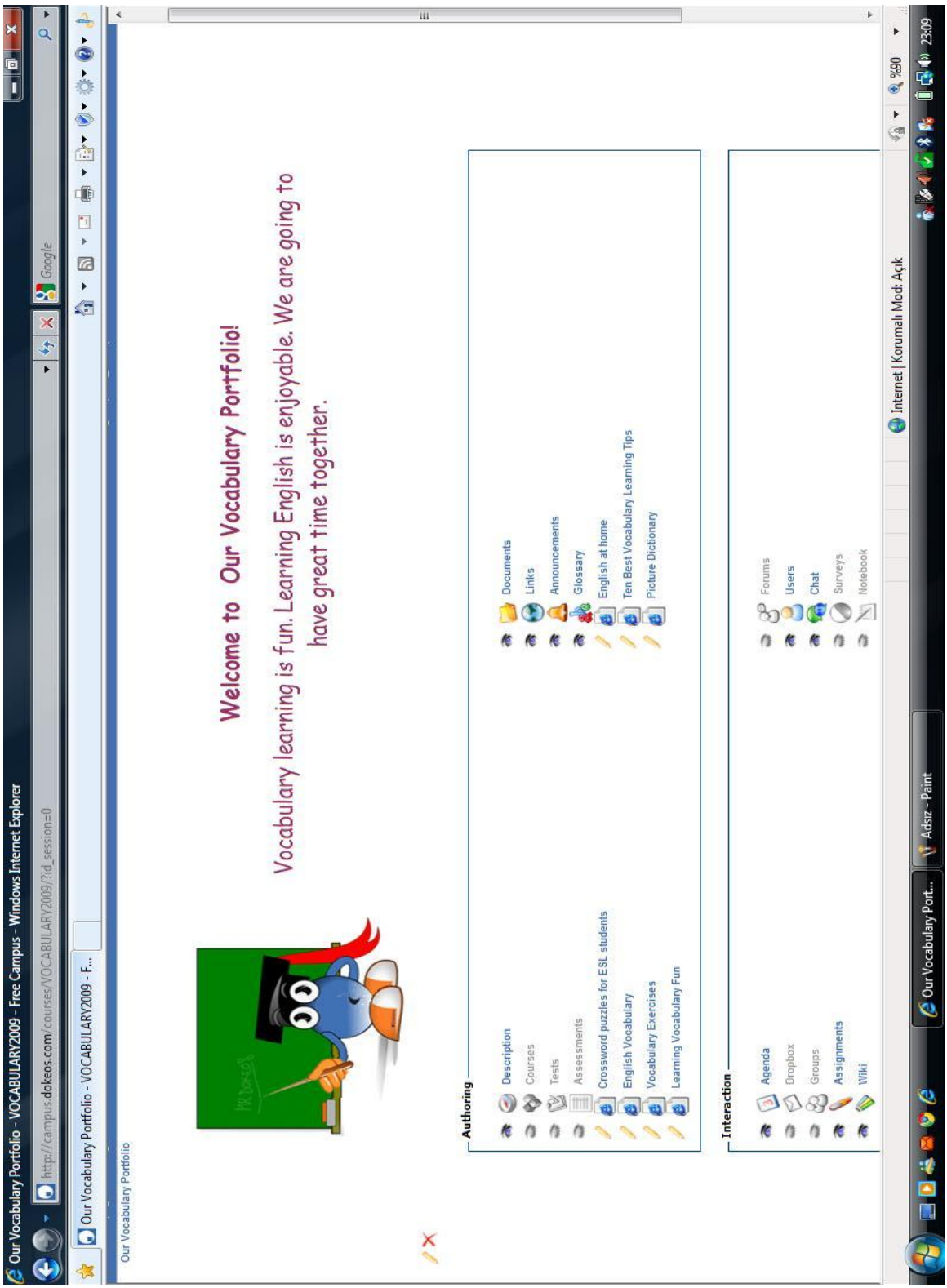
(FRONT PAGE OF OUR E-LEARNING PORTAL)



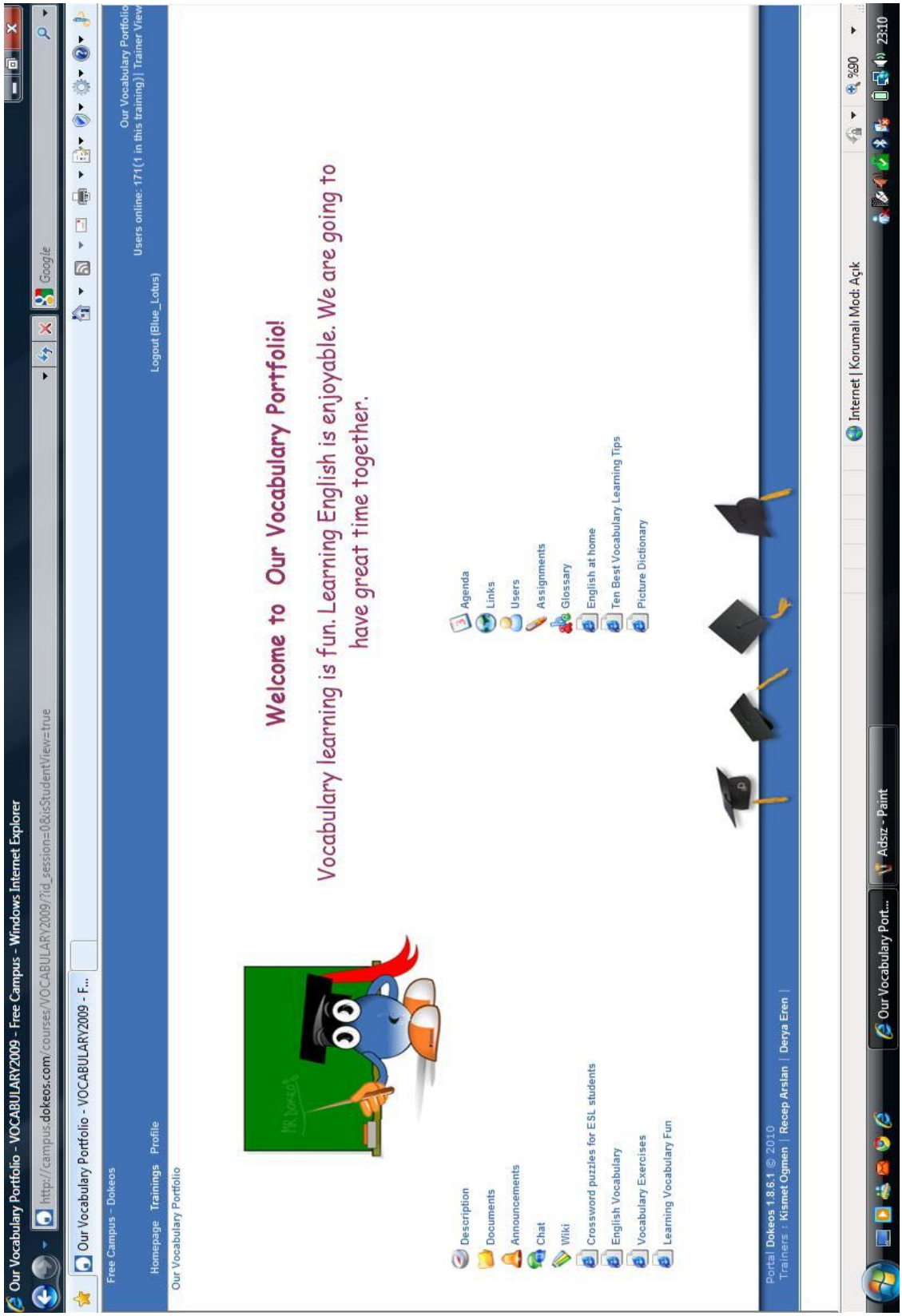
(OPENING PAGE OF OUR VIRTUAL E-PORTFOLIO COURSE)



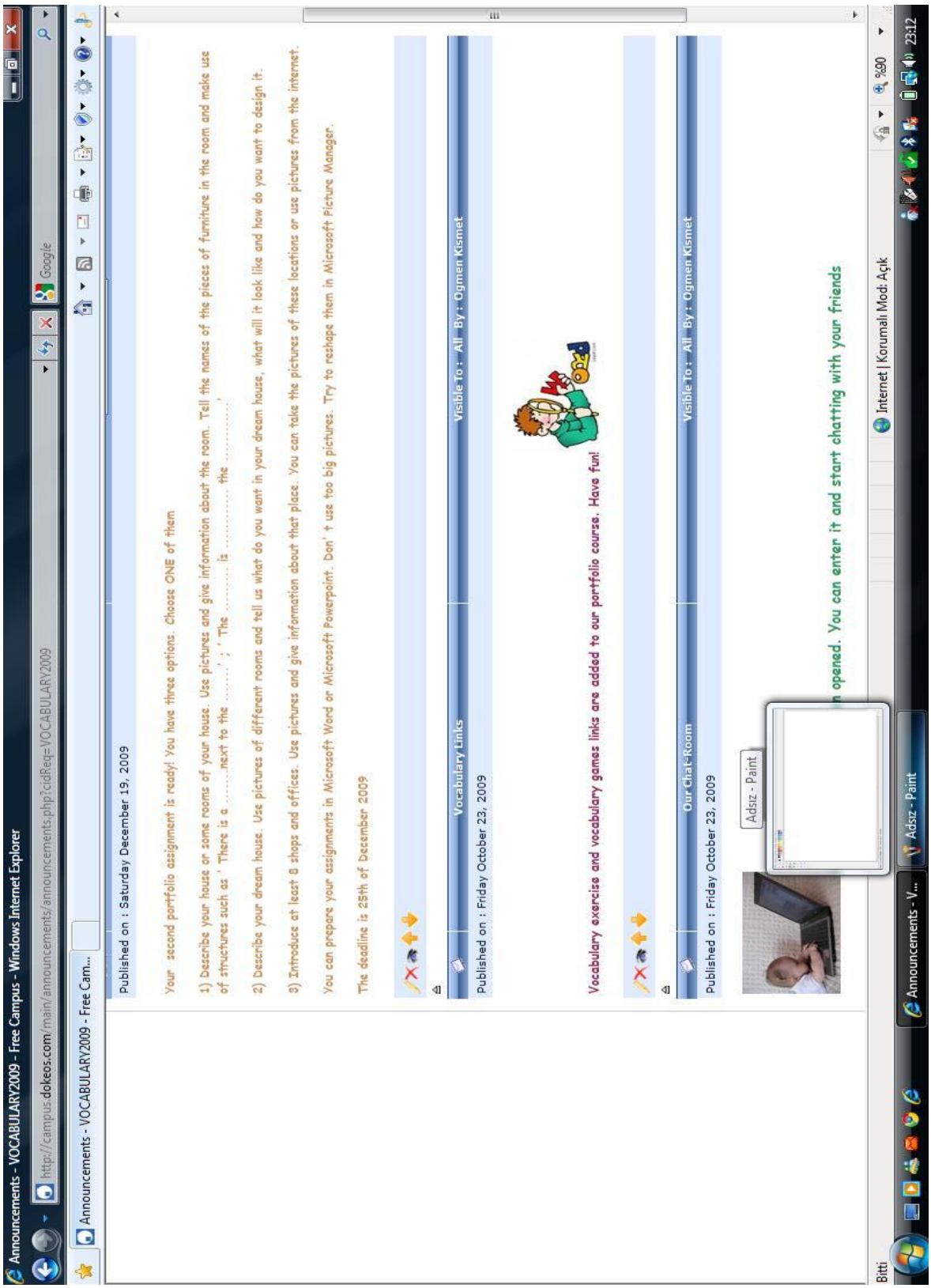
(TEACHER VIEW OF OUR E-PORTFOLIO)



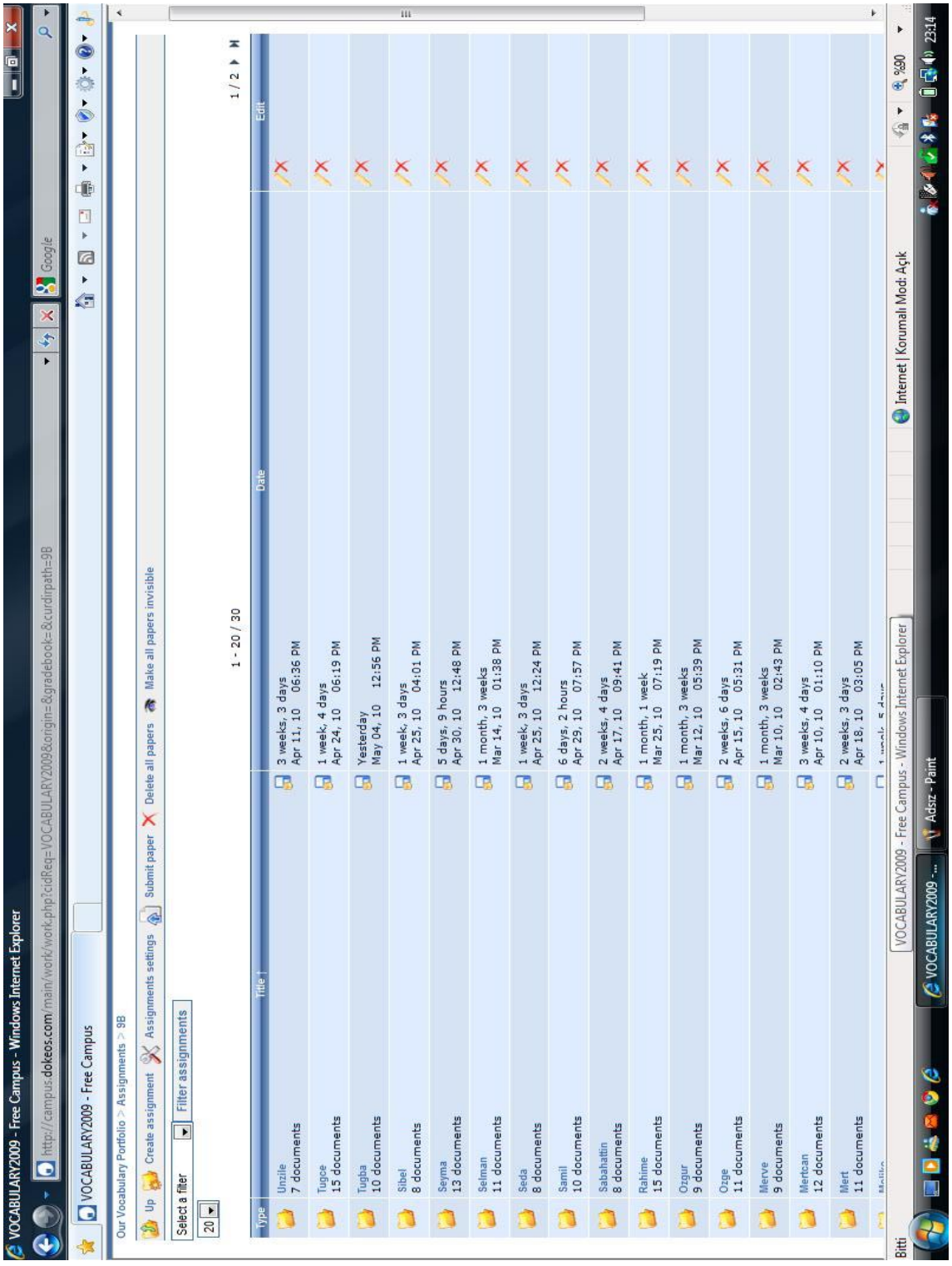
(LEARNER VIEW OF OUR E-PORTFOLIO)



(ANNOUNCEMENTS PAGE OF OUR E-PORTFOLIO)



(ASSIGNMENTS PAGE OF CLASS 9B)



APPENDIX 4: LIST OF E-PORTFOLIO ASSIGNMENTS

UNIT 4: Traffic / verbs of action

Writing a traffic dialogue using vocabulary studied in Unit 4.

Writing a paragraph about traffic in Turkey using vocabulary in Unit 4.

Preparing a power point showing people being able to or not able to do different actions.

UNIT 5: Verbs of daily routines / Likes and dislikes

Preparing an assignment on your/ one of your family members/ of a famous person's a day in his/her life.

Preparing a classroom survey on our classmates' likes and dislikes.

Preparing an assignment on your / your family members' likes and dislikes.

UNIT 6: Leisure activities / hobbies / interests

Collection of different types of leisure activities and hobbies.

Preparing a classroom survey or a survey among teachers on leisure activities, hobbies, and interests.

UNIT 7: Plans and intentions / Adjectives

Writing about weekend plans/ holiday plans/ summer plans / future plans

Preparing a collection of different adjectives describing places and feelings

UNIT 8: Dos and donts

Building classroom rules (can be group work)

Describing the rules in an institution / in your home / in your dormitory / in your country.

UNIT 9: Verbs 'do' and 'make' / Recipes

Preparing a collection of collocations with 'do' and 'make'.

Presenting the recipe of your favorite food.

Introducing special food eaten on fests and how they are prepared.

UNIT 10: Food and drinks / Adjectives related to food and drink

Introducing our local supermarket and presenting what you can buy there, how they taste.

Preparing a restaurant menu and writing a restaurant dialogue.

UNIT 11: Revision of verbs / Past habits

Reporting on our past habits and new habits.

Describing the past and present situation of a place you know / a person / or the life style of people.

UNIT 12: Crimes

Writing a detective story using the vocabulary in Unit 12.

Writing a newspaper article on a crime committed in our local area (can be imaginary).

UNIT 13: Adjectives / Making comparisons

Collection of different adjectives and their opposite forms.

Comparing two or more people / places / films / books / activities / food etc.

UNIT 14: Our environment / The future

Presenting our environmental problems and possible solutions.

Writing a science fiction story.

UNIT 15: Health and illnesses

Writing an anecdote about a serious illness you experienced.

Introducing different illnesses.

Presenting what we should do to keep healthy.

APPENDIX 5: POST-APPLICATION QUESTIONNAIRE

Sevgili Öğrenciler,

Elinizdeki anket daha önce doldurmuş olduğunuz anketin kısmen tekrarı olup" E-portfolyo Yoluyla Kelime Öğretiminin 9.sınıf Anadolu Lisesi Öğrencilerinin Kelime Öğrenme Stratejilerine ve Öğrenir Özerkliğine Olan Etkisi" konulu yüksek lisans tezine veri toplamak amacıyla hazırlanmıştır. Vereceğiniz cevaplar sürdürülen e-portfolyo çalışmasının genel bir değerlendirmesini oluşturmakla birlikte daha etkili bir kelime öğrenme ve öğretme modeli geliştirilmesinde yardımcı olacaktır. Soruların belli bir doğru cevabı yoktur. O yüzden lütfen soruları özgürce ve samimiyetle cevaplayınız. Her bir soruyu dikkatle okuyarak eksiksiz yanıtlamaya ve atlanmış soru bırakmamaya çalışınız. İsminizi yazmayınız.

Katkınız ve ayırdığınız zaman için şimdiden teşekkürler.

Kısmet ÖĞMEN

BÖLÜM 1.

Aşağıdaki soruları okuyunuz ve kendinize uygun şıkkı işaretleyiniz.

1) Çalışma süresince www.campus.dokeos.com adresindeki e-portfolyonuza kaç tane ödev hazırladınız?

( ) Hiç ödev hazırlamadım ( ) 1-5 arası ( ) 6-10 arası ( ) 11-15 arası ( )15 'ten fazla

2) Çalışma süresince e-portfolyonuza ortalama ne sıklıkta girdiniz?

( ) Hiç girmedim ( ) Haftada 1-2 gün ( ) Haftada 3-4 gün
( ) Haftada 5-6 gün ( ) Her gün

3) www.campus.dokeos.com adresindeki " Our Vocabulary Portfolio" dersi dışında başka derslere üye oldunuz mu?

( ) Evet ( ) Hayır

4) Eğer "Our Vocabulary Portfolio" dersinden başka derslere üye oldu iseniz bu şekilde başka kaç derse üye oldunuz?

( ) Hiç birine üye olmadım ( ) 1-3 ( ) 4-6 ( ) 7-10 ( ) 10'dan fazla

5) Üye olduğunuz bu derslerin isimlerini lütfen yazınız.

_____
_____
____

6) www.campus.dokeos.com adresindeki e-portfolyonuz ile ilgili hiçbir çalışma yapmadı iseniz nedeni nedir? Lütfen belirtiniz.
_____
_____

7) www.campus.dokeos.com adresindeki e-portfolyo çalışmanızı tek cümle ile özetlemek isterseniz, nasıl değerlendirirsiniz? Lütfen belirtiniz.
_____
_____

BÖLÜM 2.

Bu bölümde aşağıdaki ifadeleri okuyup sizin durumunuza en uygun olan seçenekteki kutucuğa işaret koyunuz.

	Hiçbir zaman 1	**Nadiren 2**	**Bazen 3**	**Çoğu kez 4**	**Her zaman 5**
1.Hatırlamak için yeni kelimeleri bir cümlede kullanırım.					
2.Kelime listeleri yapıp yanlarına anadilimdeki karşılıklarını yazarım.					
3.Ders dışında kelimeleri düzenli olarak tekrar ederim.					
4.Seyrettiğim film ve TV programlarından kelimeler öğrenirim.					
5.Hatırlamak için, yeni durumlarda, bilindik kelimeleri değişik şekillerde kullanırım.					
6. Öğretmenimden kelimenin anlamını açıklamasını isterim.					
7. Bir kelimeyi defterde, kitapta veya tahtadaki yerini anımsamak yoluyla hatırlarım.					
8. Bir kelimeyi anlamazsam İngilizce-Türkçe bir sözlüğe bakarım.					
9. Bir şekilde benzer olan kelimeleri hatırlarım.					
10. Derste yeni bir kelime duyunca hemen yazarım.					
11. Zevk için kitap veya dergi okurken, kelimeleri yazarım.					
12. Kelime kartları yaparım.					
13. Anlamını tahmin etmek için yabancı kelimeler ile anadilimdeki kelimeler arasında ses ve anlam bakımından benzerlikler ararım.					
14. Bir kelimeyi yazılmış olarak görürsem hatırlarım.					
15. Hatırlamak için bir kelimeyi tekrar tekrar sesli olarak söylerim.					
16. Hatırlamak için bir kelimenin anlamını bir şekil ile ilişkilendiririm.					
	Hiçbir zaman 1	**Nadiren 2**	**Bazen 3**	**Çoğu kez 4**	**Her zaman 5**
17. Bir kelimeyi anlamazsam İngilizce-İngilizce bir					

sözlüğe bakarım.					
18. Yeni kelimeleri, daha önce bildiğim kelimelerle ilişkilendiririm.					
19. Hatırlamak için kelimeleri tekrar tekrar yazarım.					
20. Yeni kelimeler öğrenmek için sözlük karıştırırım.					
21. Karmaşık kelimeleri hatırlarım çünkü dikkat çekerler.					
22. Anlayabilmek için kelimeleri anadilime çeviririm.					
23. Bir parça içinde yeni kelimeleri işaretlemek için renkli kalemler ve vurgulayıcılar kullanırım.					
24. Hatırlayabilmek için kelimeleri gruplandırırım.					
25. Yeni öğrendiğim bir kelimeyi hemen bir konuşmada veya yazıda kullanmaya çalışırım.					
26. Bir kelimeyi hatırlamak için zihnimde tekrar ederim.					
27. Yeni bir kelimenin anlamını içerikten tahmin etmeye çalışırım.					
28. Bir kelimeyi resimler, çizimler veya şekiller ile bağdaştırırsam hatırlarım.					
29.Yabancı dilde şarkılar dinlerim ve sözlerini anlamaya çalışırım.					
30. Yabancı dilde kitap veya dergi okurken kelimeler öğrenirim.					
31. Bir kelimeyi nerede geçtiğini anımsarsam hatırlarım.					
32. Bilgisayar oyunlarından kelimeler öğrenirim.					
33. Bir kelimeyi, onunla kişisel bir deneyimimi birleştirirsem hatırlarım.					
	bHiçbir zaman 1	**Nadiren 2**	**Bazen 3**	**Çoğu kez 4**	**Her zaman 5**
34. Kelimelerle benzer veya zıt anlamlı başka kelimeler arasında bağlantı kurarım.					
35. Kelimeleri hatırlayabilmek için onlarla somut cisimler arasında bağlantı kurarım.					

36. Başkalarından beni kelimeler konusunda test etmelerini isterim (örn. Anne-babam, kardeşlerim, arkadaşlarım)					
37. Bir kelimeyi beğenirsem onu hatırlarım.					
38. Kelimeleri hatırlamak için arkadaşlarımla çalışırım.					
39. Ayrı bir kelime defteri tutarım.					
40. Kelimeleri sadece sınavlardan önce tekrar ederim.					
41. İnternette gezerken kelime öğrenirim					

BÖLÜM 3.

I. Bu bölümde aşağıdaki ifadeleri okuyup sizin durumunuza en uygun olan seçenekteki kutucuğa işaret koyunuz.

	Hiçbir zaman 1	**Nadiren 2**	**Bazen 3**	**Çoğu kez 4**	**Her zaman 5**
1. İyi bir İngilizce öğrenebilme yeteneğine sahip olduğumu düşünüyorum.					
2. İngilizce çalışma konusunda boş zamanımı iyi kullanabildiğimi düşünüyorum.					
3. Derse girmeden önce o gün işlenecek konulara bakarım.					
4. Ders sırasında verilen görevleri zamanında bitirebildiğimi fark ediyorum.					
5. Günlük tutarak, o günün değerlendirmesini yazarak v.b. yollarla çalışmamın bir kaydını tutarım.					
	Hiçbir zaman 1	**Nadiren 2**	**Bazen 3**	**Çoğu kez 4**	**Her zaman 5**
6. Kendi kendime seçtiğim sınav kağıtları ile kendime sınav yaparım.					
7. İlerleme kaydettiğimde kendimi alışverişe gitmek, oyun oynamak v.b. bir faaliyetle ödüllendiririm.					

8. Pratik yapmak ve dili öğrenmek için ders dışı faaliyetlerde bulunurum.					
9. Ders sırasında ikili/ grup çalışması, canlandırma gibi etkinliklerde yer almak için fırsatlar yakalamaya çalışırım.					
10. İngilizce çalışırken güçlü ve zayıf olduğum noktaları biliyorum.					
11. Ne çok zor ne çok kolay, kendi seviyeme uygun kitaplar ve alıştırmalar seçerim.					

II. Verilen ifadeleri dikkatli bir şekilde okuyarak size göre en uygun seçeneği işaretleyiniz. Lütfen her soruda sadece tek bir seçenek işaretleyiniz.

12. İngilizce' yi _____ öğreniyorum.

A) ailem istediği için
B) merakım olduğu için
C) iyi bir iş sahibi olayım ve okuyacağım alana katkısı olsun diye.
D) film, müzik, spor gibi alanlarda İngiliz kültürüne olan ilgimden ötürü.
E) C ve D de belirtilen sebeplerden ötürü.

13. Bence öğrenci-öğretmen ilişkisi _____ilişkisine benzer.

A) alıcı ve verici
B) ham madde ve üretici
C) müşteri ve mağaza sahibi
D) partnerlerin/ arkadaşların
E) keşfeden ve yönlendiren

14. Bence İngilizcedeki başarım veya başarısızlığım temelde _____bağlıdır.

A) şans veya kadere
B) İngilizce çalıştığım çevreye
C)çalışmalarımı destekleyen donanıma
D) öğretmenlere
E) kendime

15. Öğrencilerin çalışma planını öğretmenlerle beraber hazırlaması yönündeki düşünceye_____.

A) kesinlikle katılıyorum
B) katılıyorum
C) ne katılıyorum ne katılmıyorum

D) karşı çıkıyorum
E) kesinlikle karşı çıkıyorum

16. Öğretmen cevaplamamız için sorular sorduğunda, ben çoğunlukla _____.

A) diğerlerin cevaplamasını beklerim
B) düşünür ve cevap vermeye hazırlanırım
C) kitaplara ve sözlüklere bakarım
D) öğretmenle beraber sorulara açıklık getiririm
E) ikili veya grup tartışmalarına katılmak isterim

17. Bilmediğim yeni bir kelimeyle karşılaşırsam genellikle_____.

A) okuyup geçerim
B) başkalarına sorarım
C) anlamını tahmin ederim
D) B ve E şıkları beraber
E) sözlükten bakarım

18. Hata yaptığımda _____.

A) olmalarına izin veririm (önemsemem)
B) öğretmenlerimin beni düzeltmesini isterim
C) sınıf arkadaşlarımın beni düzeltmesini isterim
D) başkalarının beni düzeltmesini isterim
E) kitap ve sözlüklerden yararlanırım

19. Daha önce kullanmadığım bir teknolojiyi kullanmam istendiğinde (örn. internette tartışma)_____.

A) genellikle yeni beceriler öğrenmeye çalışırım
B) başkalarını izleyerek öğrenirim
C) endişelenirim ama önemli değil
D) ertelerim ve kaçınmaya çalışırım
E) kullanmamak için direnirim

20. İngilizce çalışırken benim için en yararlı yol_____.

A) not tutmaktır
B) mekanik ezber yapmaktır
C) dilbilgisi, çeviri, kelime v.b alıştırmaları yapmaktır
D) sınıflandırma, gruplandırma ve karşılaştırma yapmaktır
E) grup tartışmalarıdır

21. Çalışmalarımda genellikle _____tarafından seçilmiş materyaller kullanırım.

A) sadece öğretmenler
B) çoğunlukla öğretmenler
C) öğretmenler ve benim

D) çoğunlukla benim
E) sadece benim

KATILIMINIZ İÇİN TEŞEKKÜRLER

APPENDIX 6: INTERVIEW QUESTIONS

INTERVIEW QUESTIONS

1) Bu e-portfolio çalışmasının, genel olarak size kelime öğrenme konusunda ne gibi yararları olduğunu düşünüyorsunuz?

2A) E-portfolio çalışması sırasında, kelime öğrenme çalışması anlamında, daha önce uygulamayıp çalışmayla beraber uygulamaya başladığınız ne tür yöntemler oldu?

2B) Bu uygulamaya başladığınız yeni yöntemlerin size kelime öğrenme açısından ne tür yararları oldu?

3A) Çalışma süresince öğretmeninin verdiği ödevler dışında kendi başınıza, öğretmen tarafından istenmeden, ne tür çalışmalar yaptınız?

3B) Bu e-portfolio çalışmasının sizi kendi kendinize çalışmaya ne şekilde ve ne oranda yönlendirdiğini düşünüyorsunuz?

APPENDIX 7: LIST OF STRATEGIES EXAMINED IN THE STUDY

Strategy 1: I use new words in a sentence in order to remember them.

Strategy 2: I make word lists and write their translations in my mother tongue.

Strategy 3: I revise vocabulary regularly outside the classroom.

Strategy 4: I pick up words from films and TV programs I watch.

Strategy 5: I use familiar words in various ways in new situations in order to remember them.

Strategy 6: I ask the teacher to explain the meaning of the word.

Strategy 7: I remember a word by remembering its location in the notebook, textbook, or on the board.

Strategy 8: If I do not understand a word, I look it up in a bilingual dictionary.

Strategy 9: I remember words that are in some way similar.

Strategy 10: If I hear a new word in class, I immediately write it down.

Strategy 11: I write down words while I read books and magazines for pleasure.

Strategy 12: I make word cards.

Strategy 13: I look for similarities in sound and meaning between words in my mother tongue and foreign words (cognates) in order to guess the meaning.

Strategy 14: I remember a word if I see it written down.

Strategy 15: I say a word out loud repeatedly in order to remember it.

Strategy 16: I connect an image with a word's meaning in order to remember it.

Strategy 17: If I do not understand a word, I look it up in a monolingual dictionary.

Strategy 18: I associate new words with the ones I already know.

Strategy 19: I write down words repeatedly to remember them.

Strategy 20: I read and leaf through a dictionary to learn some new words.

Strategy 21: I remember 'complicated' words because they stand out.

Strategy 22: I translate the words into my mother tongue to understand them.

Strategy 23: I use colors and highlighters to mark new words in a text.

Strategy 24: I group words together in order to remember them.

Strategy 25: I try to use the new words I learn immediately in conversations or writing.

Strategy 26: I repeat the word mentally in order to remember it.

Strategy 27: I try to guess the meaning of a new word from the context.

Strategy 28: I remember a word if I associate it with pictures, drawings or illustrations.

Strategy 29: I listen to songs in the foreign language and try to understand the words.

Strategy 30: I pick up words while reading books and magazines in the foreign language.

Strategy 31: I remember a word if I remember the context in which I heard it.

Strategy 32: I pick up words from computer games.

Strategy 33: I remember a word if I connect it with my personal experience.

Strategy 34: I connect words with other words with similar or opposite meanings.

Strategy 35: I connect words to physical objects to remember them

Strategy 36: I ask somebody to test me on words (e.g. parent, sibling, friend).

Strategy 37: I remember a word if I like it.

Strategy 38: I practice with friends in order to remember words.

Strategy 39: I keep a separate vocabulary notebook.

Strategy 40: I review words only before a test.

Strategy 41: I pick up words from the Internet.

APPENDIX 8: SAMPLE ASSIGNMENT SHEET

GUIDELINE FOR OUR VOCABULARY E-PORTFOLIO TASK 1

TOPICS: 1) Abilities 2) Traffic **DEADLINE:** December 4th, 2009

TASKS: 1) Write a dialogue about a traffic accident. You may use the following words: accident – traffic sign – ambulance- emergency number- unconscious- injured- driving license – traffic lights – cross roads - careless driver – speed limit – police officer- crash- noise

2) Write a paragraph about traffic in Turkey (100-150 words). You may use the following words: traffic jam – traffic warden – break rules – obey rules – accident – traffic sign – driving license – rush hours – park – injured – traffic lights – cross roads – speed limit- traffic lights – no parking

3) What can/ can't people do? Find at least 20 pictures of a person doing something. Tell us what can this person do (or can't do)

CONTENT:

Choose one of the tasks above.

1) Prepare a dialogue about an accident. Where is it, how did it happen, are there any injured people, where is the driver etc.

2) Write a paragraph in about 100 -150 words. Describe problems in traffic in Turkey.

3) Find pictures of at least 20 different people doing something. Describe the pictures.

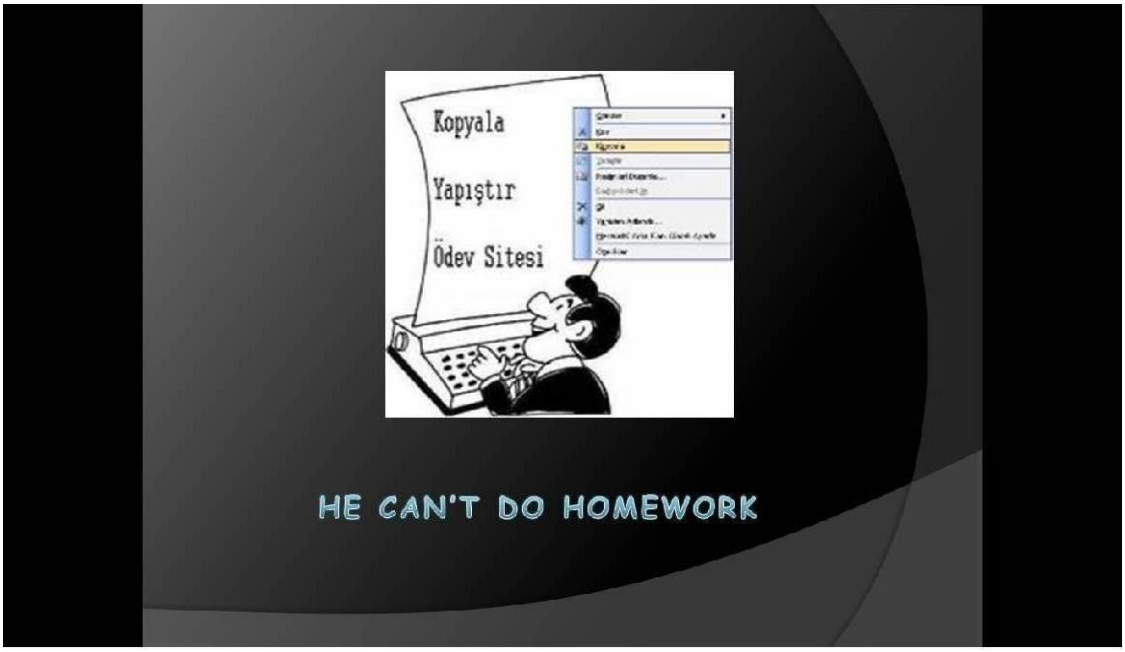
You can use **PHOTOS** and **PICTURES**.

You can prepare your assignment in Microsoft Word or Microsoft Power point. If you can use other programs you can use them, too.

Finish and send your assignment by **4th December, 2009** to your file in http://campus.dokeos.com.

APPENDIX 9: ASSIGNMENT SAMPLE 1

(UNIT 4 –ABILITIES)


Kopyala
Yapıştır
Ödev Sitesi
HE CAN'T DO HOMEWORK


SHE CAN SPEAK ON THE PHONE

APPENDIX 10: ASSIGNMENT SAMPLE 2

(UNIT 10 – WRITING A RESTAURANT DIALOGUE)

M:Hello
R: Hello
. R:We are hungry.
G:ok
((Merve and Rahime are sitting down. Came the menu.))

G: May I take your order?
M: What would you recommend as a starter.?
G:I recommend the tarhana soup.It is really delicious.
R:All right.I would like tarhana soup.
M: Me,too.

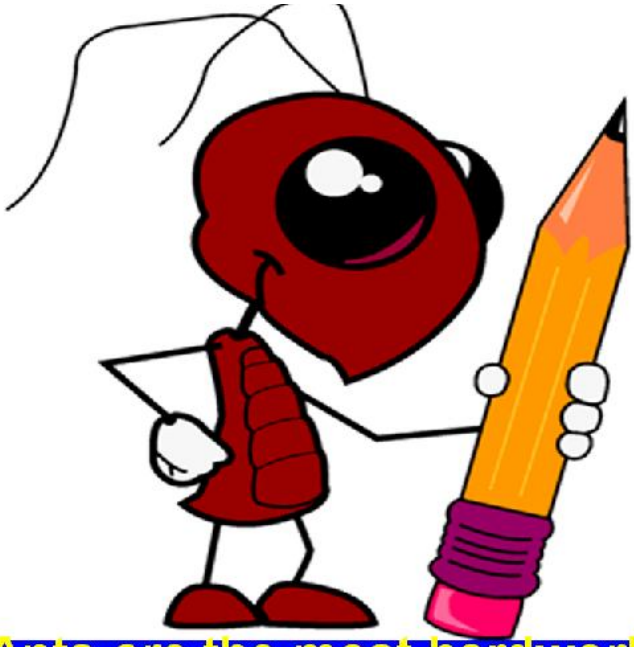
G: Would you like anything to drink?
R:Water.
M:ayran

M Is this your restaurant?
G:Yes.
M: This place is beautiful.
G:Thanks.

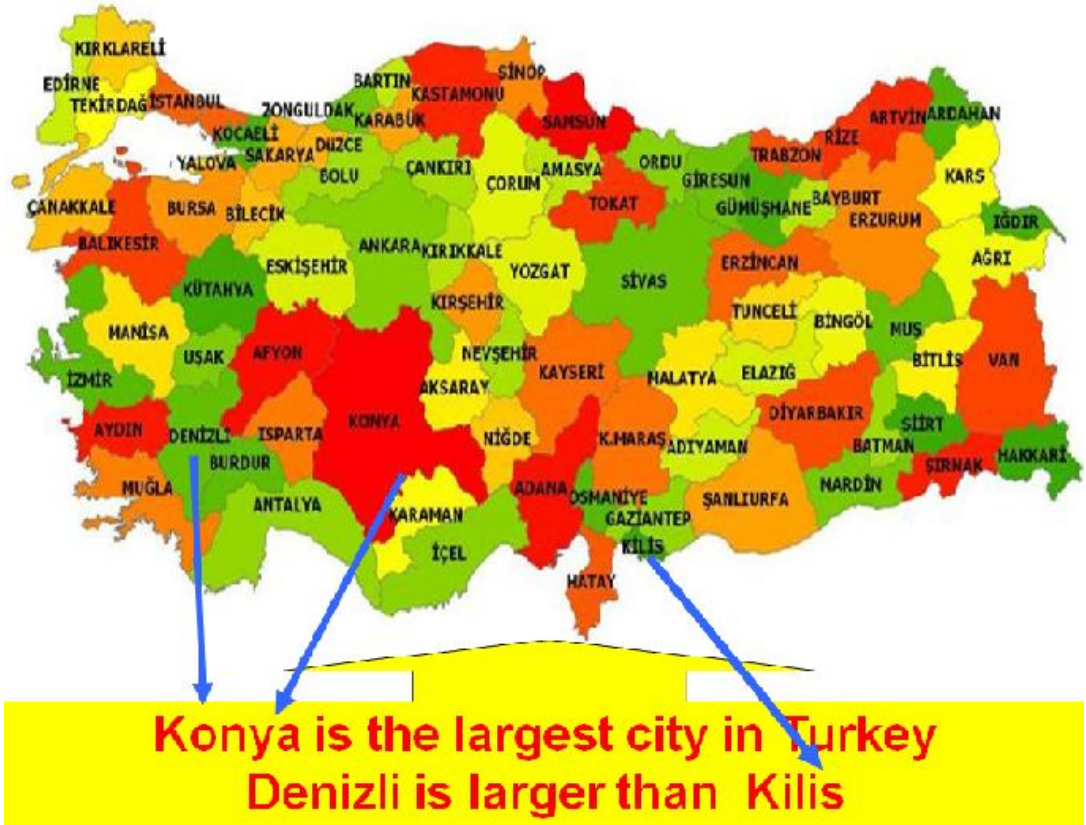
(eating foods.)
R:Can we take the bill.?
G:This is the bill.
M:thanks.
R:thanks.
G:Good bye.

APPENDIX 11: ASSIGNMENT SAMPLE 3

(UNIT 13- MAKING COMPARISONS)



Ants are the most hardworking animal in the world



APPENDIX 12: ASSIGNMENT SAMPLE 4

(EXTRA ASSIGNMENT- FREE TOPIC)

Master do something burning-turning in the middle

Usta ortaya yanar döner birşey yapsana

Sensitive meat ball

İçli köfte

APPENDIX 13: ASSIGNMENT SAMPLE 5

(EXTRA ASSIGNMENT- FREE TOPIC)

I and My Family

Hi. My name is Sibel. My surname is Kolçak. I am fifteen years old. I am a student. I am go to Mustafa Kaynak High School .My favorite subject maths, english . My favorite singers are Yalın, Kenan Doğulu, Şebnem Ferah.I like listen to music, swimming, play the guitar. I have got green eyes. I am a blond.

My mother is Nursel. She is forty - seven years old. She is a housewife. My father is Zafer. He is fifty-four years old. He is an engineer. I have got two brothers. Their names are Osman and Onur .They are students. Onur is twenty five and man is

CURRICULUM VITAE

Kısmet ÖĞMEN was born in 1973 in Germany. She completed her primary and secondary education in Denizli. After finishing Denizli Anatolian High School she started her university education at Middle East Technical University at the Department of Foreign Language Education. She graduated from this department in 1996 and started to work as an English teacher. She worked in different private and government educational institutions for 15 years. She started the M.A program in English Language Teaching at the Department of Foreign Language Education at Pamukkale University in 2008. Currently, she is working as an instructor at the School of Foreign Languages at Pamukkale University.