

T.C.
ABANT IZZET BAYSAL UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES

THE EFFECT OF MEMORY STRATEGY TRAINING ON THE VOCABULARY
DEVELOPMENT OF
AUSTRIAN SECONDARY SCHOOL STUDENTS

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T.C.
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In Partial Fulfillment of the Requirements for the Degree of
MASTER OF ARTS IN ENGLISH LANGUAGE TEACHING

By Soner SÖZLER

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To my family

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ÖZET

HAFIZAYA DAYALI ÖĞRENME STRATEJİLERİNİ ÖĞRENMENİN AVUSTURYALI İLKÖĞRETİM ÖĞRENCİLERİNİN KELİME ÖĞRENMELERİNE OLAN ETKİSİ

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Bu çalışma Avusturya'nın güney bölgesinde bulunan bir Avusturya İlköğretim okulunda öğrenim gören 26 öğrenci üzerinde uygulanan kelime geliştirme strateji eğitiminin etkilerini araştıran bir çalışmanın aşamalarını sunmaktadır. Hafızaya dayalı kelime öğrenme tekniklerinin öğrencilerin kelime gelişimi üzerinde etkisini ölçebilmek amacıyla ön-test, son-test, uzun dönem kalıcılık testi ve öğrencilerin uygulamada kullanılacak olan kelimeleri uygulama öncesi ve sonrası ne kadar öğrendiklerini ölçen bir anket uygulanmıştır. Sonuçlar, bir kelime öğrenme tekniği olarak hafızaya dayalı kelime öğrenme tekniklerini kullanan öğrencilerin sözcük listelerini kullanan öğrencilerden daha fazla kelime gelişimi seviyesine ulaştığını ve dolayısıyla hafıza stratejilerinin öğrencilerin kelime gelişimi üzerinde etkisinin daha fazla olduğunu göstermiştir.

Anahtar Kelimeler: Dil Öğrenme Stratejileri, Hafızaya Dayalı Öğrenme Stratejileri, Yabancı Dil Öğrenmede Kelime Gelişimi

ABSTRACT**THE EFFECT OF MEMORY STRATEGY TRAINING ON THE VOCABULARY
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Master Dissertation-English Language Teaching Program

Supervisor: Assist. Prof. Dr. Derya ERİCE

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This current paper presents the phases of a research about the effects of strategy training on vocabulary development with 26 students studying in an Austrian Public Secondary School located in the Lower part of Austria. In order to be able to measure the effect of the memory strategy training on students' vocabulary development an achievement test and a questionnaire were conducted as pre, post and long-term retention tests. Results indicated that using memory strategies as a vocabulary learning technique is more effective than using word lists to improve vocabulary level.

Keywords: Language Learning Strategies, Memory-based Strategies, Vocabulary Development in Foreign Language

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CHAPTER I

INTRODUCTION

Unlike the learning of syntactic or phonological constructions, developing vocabulary knowledge has apparently no limit, therefore research in vocabulary learning has shown a sharp increase since it was considered as important in learning a language. Because most researchers criticize for the little attention they have paid to the factors which affect vocabulary learning (Chamot & O'Malley, 1990; Naiman et al., 1975). As vocabulary plays an important role in various areas such as establishing a good communicative environment or gathering information, it is a crucial part of language teaching. Therefore, making students aware of the ways or strategies they should use in order to develop their vocabulary knowledge is emphasized. When students' preferences in vocabulary learning strategies are taken into consideration; also, they failed to define best strategies and why students prefer more to use some strategies like rote learning rather than other strategies such as memory or cognitive ones.

First of all, in 1970s researchers formally noticed a connection between successful language learners and what they did to acquire a second (L2) or foreign language (FL) (Naiman, et al., 1975; Stern, 1975; Rubin & Wenden, 1987). Then, in the process of identification of language learning strategies (LLS), researchers realized that many of these strategies deal with vocabulary learning (Schmitt, 1997). By concentrating on data attained from students' self-reports and interviews it was understood that learners engage in different behaviors in order to learn vocabulary in L2 or FL. For example, learners reported some strategies most of which were about memory strategies such as using dictionaries,

memorizing list of words, making up word charts, practicing words, learning words in context, repeating words, using mental imagery, and reviewing previously learned words.

After this era in which researchers defined, categorized, developed, and improved ways of measuring strategy use, further research was conducted on the understanding of strategies' interaction with learner characteristics and determining which strategies might be the most helpful to which learners in learning vocabulary. As Sökmen (1997: 225) stated students cannot learn every kind of vocabulary that is necessary in the classroom. Therefore, he put emphasis on helping learners to develop their own vocabulary learning strategies by encouraging them to rely on effective learning techniques.

The effects of variables have been investigated by using correlational method such as factor analysis to summarize the relationships between a large numbers of variables. One of the variables was the strategies used by learners, and the effects of these strategies on their success. For instance, Bialystok and Frolich (1981) investigated the relationship between strategy use and students' success in language learning and showed that effective use of learning strategies was a key factor to distinguish successful learners from unsuccessful ones.

However, there is lack of data which specifically focuses on the effects of memory strategy training on vocabulary development in the literature. In addition to this, no thesis which compares the effects of memory strategy training with the list method and reflects their difference in terms of achievement is available to the knowledge of the researcher. With the aim of closing this gap and finding the relationships between effects of memory strategy training and vocabulary learning level, this study aims to provide answers to the questions about memory strategy training and its impact on students' success in vocabulary learning.

First, this paper is concerned with vocabulary learning and the classification of learning strategies and vocabulary learning strategies. Second, the basic aim of this study is to

examine the influence of memory strategy training on vocabulary learning. Therefore the objectives of this study can be listed as:

- to examine the potential and effect of memory strategies on vocabulary development of the students at the Austrian schools;
- to discover whether there are any differences in terms of achievement between memory strategy training and list method.

Background to the Study

It is obvious that one of the main goals in language teaching is to make autonomous learners. Upon the need for autonomous language learners, many studies have shifted their focus from teacher to learner. Jing (2010) stated that there has been many successful studies which prove the great potential of strategy training and its effects on the success of the learners.

Most educational institutions still prefer to use traditional methods in which the teacher controls the learning environment and hold the authority at hand. Thus, generally the outcome is thousands of non-proficient speakers of English. On the other hand, the main goal of learning strategies is to build communicative competence (Oxford, 1990). Communicative competence refers to the awareness of what to say to whom in what circumstance and how to say it (Hymes, 1966). For instance, Oxford (1990) stated that the origin of all language learning strategies gathers around the extensive aim of communicative competence and furthermore, such strategies use common and particular ways to foster the improvement of communicative competence.

It can be inferred that LLS can empower the vocabulary knowledge of the students and by this way learners can develop their productive skills. However, O'Malley (1987) carried out a research which examined the effectiveness of strategy training with students of English

as a second language (ESL) on the three types of academic language tasks: vocabulary learning, listening comprehension, and oral production of 75 high school students. Results of this experimental research indicates that for two highly important academic language skills, listening and speaking, learning strategies were shown to be effective in enhancing initial learning.

The results of O'Malley's research showed no important contribution in terms of vocabulary building. This may be linked to the strategy choices of the participants. According to Oxford (1990), there are two possible reasons for this kind of strategy choice. The first one is the students beyond the elementary level do not prefer to use memory strategies and the second one is they may not be aware of how often they use memory strategies.

Language Learning Strategies

Introduction

The next part of the paper covers the definitions about LLS and the categorization of LLS given by the researchers such as Chamot and O'Malley (1990) and Oxford (1994). In addition to this, it gives a brief definition about memory strategies.

Types of Strategies

Language Learning Strategies have been classified in a variety of ways (Chamot & O'Malley, 1990; Oxford, 1994). According to some researchers (Chamot & O'Malley, 1990), they are divided into three main categories: (1) **metacognitive strategies** are higher order executive skills that may entail planning for monitoring, or evaluating the success of learning activity; (2) **cognitive strategies** (rehearsal, deduction, transfer, etc) operate directly on incoming information, manipulating it in ways that enhance learning. (3) **social/affective**

strategies (cooperation with peers, self talk, etc.) represent a broad grouping that involves either interaction with another person or ideational control over affect.

Oxford's (1994) categorisation is, however, different from Chamot and O'Malley's (1990) in that she divides language learning strategies as direct and indirect strategies, which are, further, subdivided into 6 groups. Under direct strategies, there are memory strategies, cognitive strategies and compensation strategies. Meanwhile, metacognitive strategies, affective strategies and social strategies are sub-groups of direct strategies. Oxford (1990) summarized six categories of language learning strategies as follows:

- (1) Memory strategies are those used for storage and retrieve new information, such as creating mental linkages, structure reviewing, using mechanical techniques;
- (2) Cognitive strategies are used by learners to understand and produce new language by many different means, these strategies are practicing and repeating new words, deductive reasoning, translating, analyzing, taking notes, highlighting, and summarizing;
- (3) Compensation strategies help learners to overcome knowledge gaps to continue to use the language such as guessing at words based on context, using gestures and coining words to communicate;
- (4) Metacognitive strategies helps learners to regulate their learning, these are paying attention, organizing, setting goals and objectives, and evaluating one's own performance;
- (5) Affective strategies help learners control their feelings and attitudes related to language learning, for example, using music or laughter as part of the learning process, rewarding oneself, making positive statements about ones' progress, and discussing feelings;
- (6) Social strategies facilitate learning to learn with others in a discourse situation, such as seeking correction, asking for clarification, working with peers, and developing cultural understanding.

Memory Strategies

Oxford (1990) states that memory strategies have been used for thousands of years. In ancient times, people used them for remembering practical information about farming, weather, or their date of birth. Oxford (1990) groups memory strategies with four sets: Creating Mental Linkages, Applying Images and Sounds, Reviewing Well, and Employing Actions. Moreover she calls these four sets with an acronym as CARE and by this way they themselves make a memory aid: “Take CARE of your memory and your memory will take CARE of you!”(p. 38).

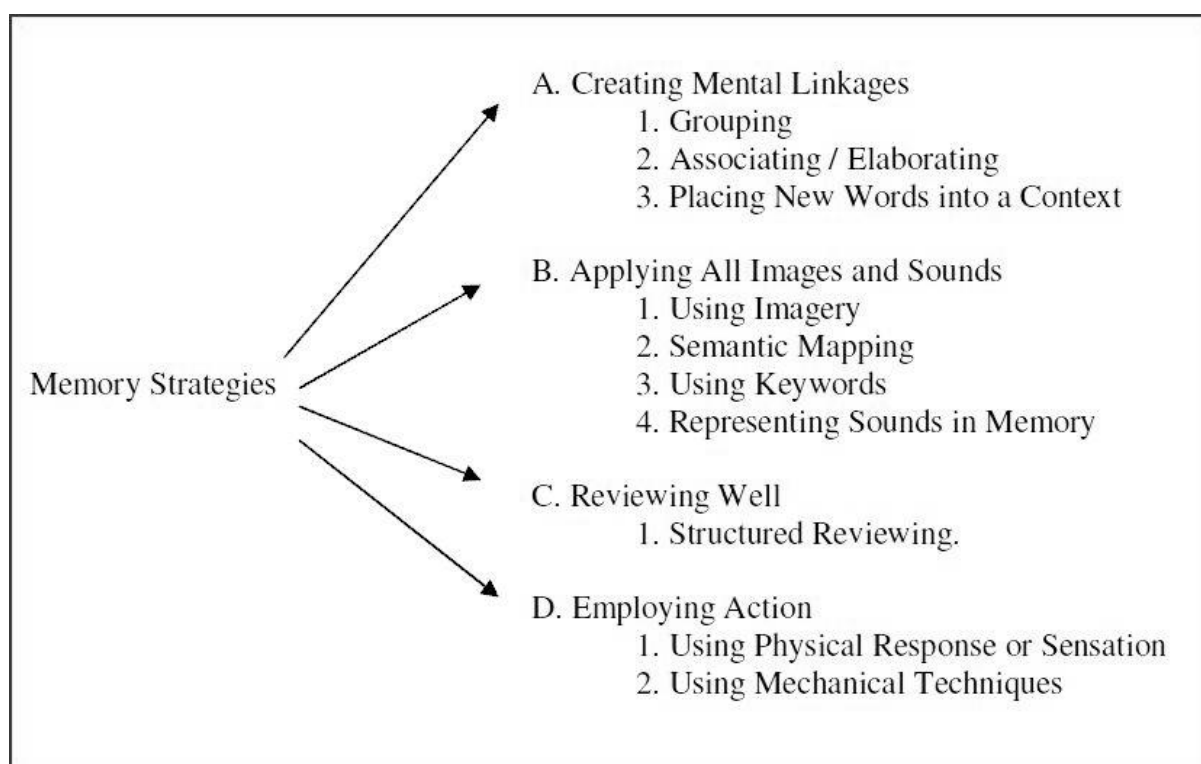


Figure 1. Diagram of the Memory Strategies (Oxford 1990)

As it is seen in the diagram, memory strategies include four sets and each set has different sub-sets. Oxford (1990) explains this as the principal rule. Claiming that by this way language learners can benefit from visual imagery, other learners who have different learning style preferences can benefit from aural (sound-oriented), kinesthetic (motion-oriented), or tactile (touch-oriented) materials. She adds that certain memory strategies are designed to do this and she uses the catchphrase “ *different strokes for different folks*”(p. 40) for the sake of the principal rule mentioned above.

Aim of the Study

The aim of this study is to discover the potential of strategy training with a focus on the effects of the memory strategies on vocabulary building of English as a Foreign Language (EFL) learners at the pre-intermediate level and to discover whether there are any differences in terms of achievement between memory strategy training and the list method. In order to be able to reach these aims the participants are taught memory strategies and then they will be directed to use these strategies especially when they are learning new vocabulary.

Statement of the Problem

Memory strategies have received great attention in the field of education. A number of studies have been conducted on the existence of language learning strategies in the language classroom (Chen, 2007; Griffiths, 2007; Jing, 2010; Oxford, 1990; Yabukoshi & Takeuchi, 2009; Yapıcı & Bada, 2002), on teachers’ perceptions of language learning strategies in lessons (Griffiths & Parr, 2001), on preferences of successful learners (Fewel, 2010) and the existence of language learning strategy experiences in different activities such as reading, listening, speaking, and writing (Ferla, Valcke & Schuyten, 2009). However, no study has focused on the potential of memory strategies on the development of vocabulary knowledge.

Thus, this study aims to examine the potential and effect of memory strategies for the sake of gaining success during vocabulary courses at the Austrian Schools and to find out the distinctive features of the training in comparison with the list method.

In Turkey, after completing one year of intensive English Preparatory Program, many learners complain about their lack of communicative competence. This may result in part from the fact that students may not find some of the correct words during the course of interaction. In order to enable students to actively participate in the interaction, it is necessary to present meaningful activities encouraging the communicative use of language. This study intends to present different ways of vocabulary practice that may lead to effective use of correct words in the time of interaction.

Research Questions

The results of the experiment were expected to provide answers to the research questions below:

RQ 1: What are the effects of memory strategies on vocabulary development of intermediate level EFL learners?

RQ 2: What is the difference between the memory strategy training and list method in terms of success and retaining the success obtained from the experiment?

Significance of the Study

The mastery of vocabulary knowledge is a priority for many language learners. Thus, designing and presenting meaningful activities which may promote correct word choice and support the communicative use of language, are helpful to practice the target language. Although some research (Chen, 2006; Fewell 2010; Griffiths, 2007; Jing, 2010) has been conducted on the availability of learner strategies in the language classroom specifically

during different activities such as reading, writing, speaking, and listening; to the researcher's knowledge, there is no study that focuses on the effect of memory strategies on vocabulary building while practicing new words in courses.

At the local level, language teachers will benefit from the results of the study by being enabled to choose appropriate and meaningful activities that help students actively engage in vocabulary practice and gain communicative competence. Also, in the curriculum renewal processes, curriculum writers and practitioners may design the syllabus by including tasks which promote using memory strategies more. This study may also help those who are designing the vocabulary course syllabus in institution by providing a useful framework for shaping their criteria in choosing and evaluating tasks. Finally and more specifically, as Preparatory Program course instructors intending to write a vocabulary course book, this study may serve as a prominent resource.

Method

This study was conducted at a secondary school in one semester with the aim of teaching students how to learn vocabularies in the best way in accordance with their learning styles. In the first week of the treatment the researcher applied for the required permission which enables him to do the research in the Austrian public school. Three weeks later, the permission was granted by the headmaster of the school (see Appendix A). After getting the permission, the researcher met the teachers of the experimental and control classes and observed the classes in order to see the teaching process and the level of students. During this observation period which took three weeks, the researcher got the course books currently used in the classes and made a list of fifty words from the units of the course book.

In the next phase, the definitions of these fifty words were searched and listed by using Cambridge Learners Dictionary (see Appendix B). Cambridge Learners Dictionary

(CLD) was used because the participants of the study were 26 pre-intermediate students who are at the age of fourteen. Thus, CLD was thought to be suitable for the participants' age and level of English. In addition to this, a pre-test and a questionnaire were developed by the researcher and the process lasted for two weeks (see Appendix C and D). As a next step, validity and reliability of the test and the questionnaire were analyzed. The test and the questionnaire were edited under the supervision of an expert on testing and evaluation. Then, these two items were applied to 37 students who were in the 8th grade of a private school in Zonguldak to provide the reliability of the instruments. The results of the reliability study were evaluated by consulting the expert in terms of reliability and validity issues with the SPSS programme version 15. Moreover, a detailed report was presented which shows that the test and the questionnaire were both reliable and valid.

In the following phase, after completing the requirements for the reliability, the pre-test and questionnaire were applied to the 29 participants on the same day which took 50 minutes. The results of the test and questionnaire were evaluated with the help of the expert. One week after, in the experimental class ten memory strategies were taught to the students and each student was given a notebook and they were told to record their self studies on these notebooks by demonstrating an example one. Having finished the teaching of the strategies, every week a set of words which includes seven words was handed out and the definitions were read in the experimental class and then a workshop about how they can practice these words using the strategies was done in the experimental class. At the end of the class, the students were given homework in which they must pursue a self-study about the newly learned words and also they must record them on their notebooks (see Appendix E). On the other hand, the control group was given the same set of words but the researcher only read the definitions of the words in the class and making word-lists was given to the students as homework (see Appendix F).

In the last phase, the same test and questionnaire were applied to both groups as post tests in order to be able to measure and compare the achievement of the groups after the treatment. Four weeks later, the same test and the same questionnaire were applied to both groups again as long term retention tests with the aim of evaluating and comparing the long term effects of the treatment.

Assumptions and Limitations

This study is not, however, without limitations. It was conducted with participants from a public school in Austria, the ability to generalize the data is limited; thus, questionnaire and tests should also be assessed in a variety of educational contexts. For instance, a comparative study which shows the difference between Turkish and Austrian students can be a suggestion for further research.

As a second point, a further research is needed to complement the self-report data by means of data collected by interviews, think-aloud protocols and diaries, and evaluate the relationship between the use of the strategies and different factors over time. Such studies should ideally draw upon the perceptions of both teachers and learners concerning the effectiveness of the strategies.

Thirdly, the syllabus by the school was fixed and was not flexible for any kind of change in which the study was carried out. Therefore, the words used in this study had to be chosen from a particular source in order not to affect the ongoing process of the school. Furthermore, no more than one class hour was allowed to carry out the study.

Another limitation was the teachers' perception and performance of the groups. In spite of giving all the details about the application and its steps, they took this somehow as a race and tried to make the participants of the control group review the words in different ways.

Finally, to get the permission for carrying out the application, four weeks of wait time limited the timeline of the experiment. Moreover, the participants did not fully take part in the experiment and control classes on the 5th week because of the absence such as sports tournaments and some kind of illnesses.

Conclusion

In this chapter, the background of the study, statement of the problem, research questions and significance of the problem have been presented. The next chapter is the literature review, which presents the relevant literature on language learners' strategies, followed by memory strategies, vocabulary learning and the relation between vocabulary learning and memory strategies. The third chapter is the methodology chapter, which explains the participants, instruments, data collection procedures and data analysis of the study. The fourth chapter elaborates on the data analysis by presenting the tests that were run for analyzing the data and the results of the analyses. The last chapter is the conclusions chapter, which includes the discussion of the findings, pedagogical implications, limitations of the study and suggestions for future research.

CHAPTER II

REVIEW OF LITERATURE

Introduction

This chapter presents general information about language learning strategies and their classifications. Later, the focus shifts to the memory strategies. After explaining the memory strategies in detail reviewing the literature, the strategies are associated with vocabulary learning that is an essential issue in learning a language and communicating as well.

Language Learning Strategies

As language teaching has improved along with various techniques, language scholars became aware of the importance of language learning strategies. The more studies were carried out in the mid-seventies, the more significant the strategies were perceived (Rubin, 1975; Stern, 1975). However, despite the large number of studies available, defining and classifying learning strategies has been a problematic issue because the skills that the strategies aim to develop are integrated, which makes the categorization or organization of the strategies difficult. To illustrate, O'Malley et al. (1985: 22) stated:

There is no consensus on what constitutes a learning strategy in second language learning or how these differ from other types of learner activities. Learning, teaching and communication strategies are often interlaced in discussions of language learning and are often applied to the same behavior. Further, even within the group of activities most often referred to as learning strategies; there is considerable confusion about definitions of specific strategies and about the hierarchic relationship among strategies.

What is also agreed is that “research in learning strategies in the second language acquisition needs to focus on describing strategies used by successful second language learners” (O’Malley, 1985: 560). In addition, he supports the view that research is needed on “how strategies introduced explicitly in a formal setting influences implicit linguistic knowledge and students’ ability to comprehend and produce language” (1985: 561). Likewise, Oxford (1986) stated that it is essential to determine what effective language learning strategies are, specifically cognitive and metacognitive ones, to teach students how to find out with which strategies they learn the language in the most efficient way and to use them must be emphasized. Oxford (1990: 17) also admits:

There is no complete agreement on exactly what strategies are; how many strategies exist; how they should be defined, demarcated, and categorized; and whether it is –or ever will be- possible to create a real scientifically validated hierarchy of strategies.

Over the years, several researchers (Ellis, 1986; Rubin, 1975; Rigney, cited in O’Malley et al, 1985; Naiman, 1975; Chamot, 1987; O’Malley, 1990) presented defining language learning strategies within different perspectives. Because they studied different data

about good language learners and what they do to be successful, they came up with a variety of definitions.

One of the definitions was provided by Rubin (1975: 43), who was one of the earliest researchers in this field, by stating that “the techniques or devices which a learner may use to acquire knowledge” and added that “successful language learners had a strong desire to communicate, were willing to guess when unsure, and were not afraid of being wrong or appearing foolish”. In other words, if a student keeps on trying to use and discover the language, and monitors it during practice, they can be regarded as good language learners. On the other hand, Ellis (1986: 165) defined strategies as “devices for compensating for inadequate resources”, which points out a completely different aspect. Rigney (cited in O’Malley et al, 1985: 23) referred to learning strategies as “operations or steps used by a learner that will facilitate the acquisition, storage, retrieval or use of information”.

According to Naiman et al. (1975: 4), the strategies that successful learners use to develop themselves were “general, more or less deliberate approaches”. In addition, they claimed that appropriate learning styles and strategies were adopted by the learners who were aware of the needs of learning language. Thus, they become the active participants of language learning process by developing an awareness of language both as a system of rules and as a means of communication.

Chamot (1987: 71), one of the leading names in the studies on the language learning strategies, defined them as “techniques, approaches or deliberate action that students take in order to facilitate the learning and recall of both linguistic and content area information”. She focuses on the internalizing language material in more effective ways and remembering it, which the students are responsible for. This idea is also supported by another definition made

with O'Malley (1990:1) as “special thoughts or behaviors that individuals use to help them comprehend, learn or retain new information”.

In 1990s more studies (Oxford, 1990; O'Malley & Chamot, 1990; Stern, 1992) were pursued on learning strategies. What differed from the previous ones was that these studies were more interested in the learner and the strategies as adopting the learner-centered instruction. The researches were based on the idea that learning should begin with the learner. Because it is the learners who orchestrate and combine the strategies in the way they need, they should be in the centre of attention while studying on language strategies.

The most concrete step was taken by Oxford (1990: 5), one of the leading researchers on LLS. She based learning strategies on Rigney's definition as “operations employed by the learner to aid the acquisition, storage, retrieval, and use of information as a base” (Oxford, 1990: 8). To add more, she stated that “Strategies 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”. That is to say, LLS are an indispensable part of the learning process for the students to get more integrated with the process in a better way both cognitively and psychologically. If students achieve to find the best strategies for their development, they not only learn well, but also use what they have learnt. Oxford (1990: 49) also states that strategies “help learners become more fluent in what they already know and may lead learners to gain new information about what is appropriate or permissible in the target language”.

Because the key researchers and writers have employed this terminology in an inconsistent way in language learning strategy field, it is still possible to encounter difficulties in giving certain definitions and classification.

Classification of Language Learning Strategies

Most of the studies on LLS have claimed that adopting LLS leads to many advantages and, thus, success in language learning process (O'Malley et al., 1985). This argument has been proposed along with certain strategies in language learning which include various classifications. O'Malley and Chamot (1990) claim when strategies are grouped, it becomes much easier for the researchers to describe the correspondence between mental processes and strategic processes.

The first classification in literature was presented by Rubin (1981). She clarifies three major kinds of strategies: *learning*, *communication* and *social* and groups the LLS under two titles as direct strategies and indirect strategies.

According to Rubin (1981), LLS are divided into certain categories in terms of their way of handling the language. The first group, indirect strategies, involves dealing with the language learning in an indirect way, as in the name. It is distinguished into two:

- a) Creating opportunities for practice
- b) Production tricks

On the other hand, the second group, direct strategies, deals with the language learning process directly. Direct strategies are also distinguished as:

- a) Clarification/verification
- b) Monitoring
- c) Memorization (focus on the storage and retrieval process e.g. drill and repetition, mnemonic strategies also grouped in this category)

- d) Guessing/inductive inferencing
- e) Deductive reasoning
- f) Practice

In the period of Rubin's (1981) classification, some other researchers (O'Malley & Chamot, 1990; Oxford, 1990; Stern, 1992; Cohen, 1998) suggested new ways to categorize. Although they sometimes used different terms, there were many points that corresponded to one another.

A further step was taken by Oxford (1990) in the classification of LLS. Her categorization has become the most widely used one. Ellis (1994: 539) Oxford's taxonomy of LLS was the most comprehensive classification of LLS in the late 1980s and early 1990s. According to Oxford's taxonomy, LLS are divided into two major categories: *Direct Strategies* and *Indirect Strategies*. This division is similar with that of Rubin's who also grouped the LLS as direct and indirect. Oxford's two groups also have different subgroups which are 6 in total. Metacognitive, affective and social strategies are under the indirect ones, whereas the direct strategies involve memory, cognitive and compensation strategies. Figure 2 shows Direct and Indirect Strategies with their subdivisions.

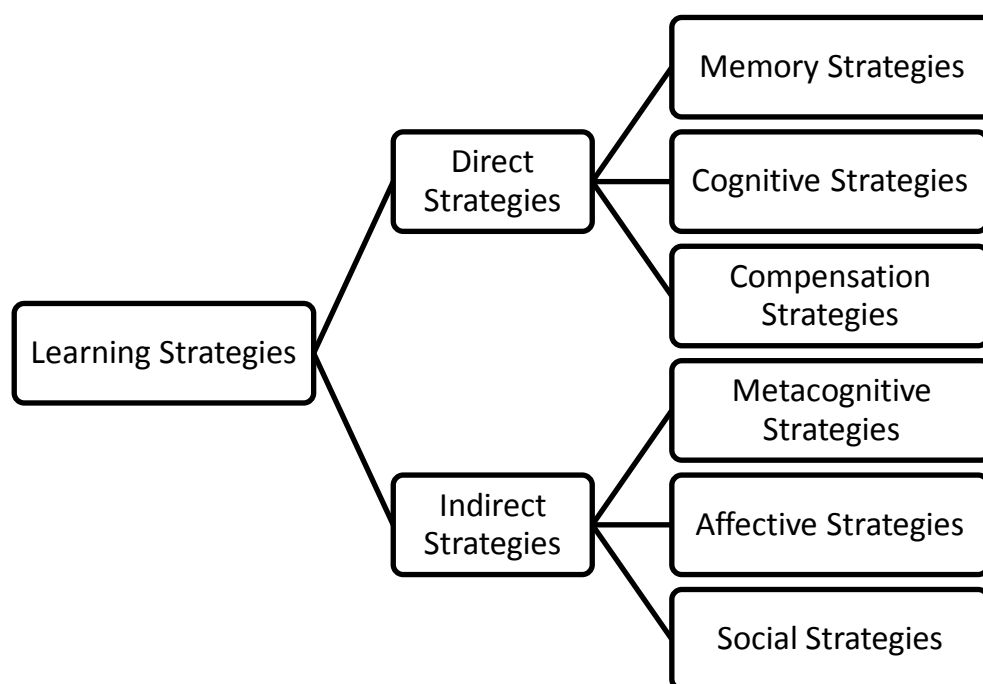


Figure 2: The Classification of Learning Strategies (Oxford: 1990)

The first major class, Direct Strategies, is straightforwardly used for dealing with the new language. Oxford (1990: 14) points that direct strategies are like “the Performer in a stage play, working with the language itself in a variety of specific tasks and situations”. The direct class is composed of by Oxford (1990):

- a) *Memory strategies*: They include the activities for remembering and retrieving new information such as acronyms, key words, images. They help learner to link the second language (L2) item with the concept.
- b) *Cognitive strategies*: One of the most popular strategies in language learning is cognitive ones. They are used for understanding and producing the language. Learners recognize, analyze synthesize, take notes, practice and create structures to develop learning.
- c) *Compensation strategies*: Compensation strategies are applied when the learner has unknown gaps about the language. These strategies include guessing from context and gestures, especially for the grammar and vocabulary fields of the language.

The direct strategies are responsible for maintaining information-based aspect. In other words, they all serve for the mental processing of the language as in Rubin's. To illustrate, despite using different terms, both Rubin's (1981) and Oxford's (1990) divisions involve memorization, guessing from context or compensation, clarification or cognitive strategy etc.

As for the other major group, Indirect Strategies are like the Director of the play in which Direct strategies are like the Performers (Oxford: 1990). The indirect strategies support and manage language learning without direct engagement and therefore called as indirect strategies. Oxford (1990) divides this category into three:

- a) *Metacognitive strategies*: Metacognitive strategies help the learners to plan their own learning process and coordinate with others in an efficient way. They include identifying, centering (focus on certain activities), planning (organize to get the maximum benefit from the energy), monitoring and evaluating the learning process (monitoring errors and evaluation progress).
- b) *Affective strategies*: Affective factors such as emotions, stress, motivation or attitude influence learning. With affective strategies, the students learn how to direct or regulate their own feelings. If the learners use this strategy effectively, they can get rid of their stress and anxiety as much as possible and raise motivation, adopt positive attitudes and be in an encouraging environment.
- c) *Social strategies*: Social strategies help students develop communication skills with the help of interaction and cooperation. They include asking questions, empathizing and working with others. Studies prove that learners have higher self-esteem and motivation and better communication skills in a socially strategic environment.

Oxford (1990) emphasizes the Performer needs to work closely with the Director for the best possible outcome. That means, all of the strategies are integrated with one another despite belonging to a different classes.

Another classification was made by O'Malley and Chamot (1990) who followed a different path from that of Oxford's. They stressed mostly the cognitive aspect of language learning and defined them as the complete thoughts or behaviors that help to comprehend, learn and store the new information. According to O'Malley and Chamot (1990) the strategies are divided into three categories: cognitive, metacognitive and social/affective.

a) Cognitive strategies are the ones used to internalize the new material such as inferencing a vocabulary or relating the new information with the old one in the memory etc. Cognitive strategies cover “interaction with the materials to be learned, manipulating the material or physically, or applying a specific technique to a learning task” (O'Malley & Chamot, 1990: 138).

b) Metacognitive strategies involve students' directing their own learning process. These strategies lead the students to think about their learning process, monitor and evaluate it and assess themselves. Such strategies allow learners to control the learning process by helping them coordinate their efforts to plan, organize, and evaluate target language performance (Shakarami, 2010).

c) Affective/social strategies involve interaction with other person or regulation of the learners' own emotions on language learning. Learners apply these strategies when interacting with other people in order to assist learning and regulate emotions and anxieties (O'Malley & Chamot, 1990).

When analyzed, it can be seen that O'Malley and Chamot's cognitive and metacognitive strategies correspond with Rubin's direct and indirect ones relatively. While direct and cognitive ones require mental processing of new information, indirect and metacognitive ones involve learners' taking responsibility and directing their own learning. One more classification was presented by Stern (1992: 262-266). He classifies the strategies into five main groups:

- a) *Management and Planning Strategies*: These strategies are used by the learner to direct his/her learning process. Thus, he/she will be able to take the responsibility of learning process and develop his learning. In the use of these strategies, the teachers are advisers and resource people (Hismanoglu, 2000).
- b) *Cognitive Strategies*: They cover the analysis, transformation and synthesis of the material used, especially, in learning and problem solving. The strategies that are included are clarification/verification, guessing/inductive inferencing, deductive reasoning, practice, memorization and monitoring. As it can be realized clearly, this strategy shows a direct parallelism with Rubin's categorization. Both mention the same subtopics for the process of information though both use different categorization, *Direct* and *Cognitive*, for these sub-skills.
- c) *Communicative-Experiential Strategies*: They include circumlocution, gesturing, paraphrasing, or asking for repetition and explanation and "are used by learners so as to keep a conversation going and avoid interrupting the flow of communication" (Stern, 1992: 265). This strategy can be associated with the social/affective ones in Oxford's (1990) or O'Malley and Chamot's (1990) categorization.
- d) *Interpersonal Strategies*: In using interpersonal strategies, learners tend to interact with native speakers and cooperate with them in order to develop their learning. In addition, learners are required to monitor and evaluate their learning process in use of interpersonal strategies.
- e) *Affective Strategies*: Language learners are more aware of emotional problems within the frame of affective strategies. They try to create positive attitudes towards foreign language and its speakers.

The last classification was made by Cohen (1998) who identified four language learning strategies:

- a) *Cognitive Strategies*: They are adopted by students in order to identify, group and store the language material. In addition, learners may use them for retrieval, rehearsal, comprehension and production of words and phrases (Cohen, 1998: 7).
- b) *Metacognitive Strategies*: These strategies involve planning and monitoring the student's learning process and self-evaluation. These strategies allow the learners to control their learning (Cohen, 1998: 8).
- c) *Affective Strategies*: Affective strategies let students to direct and regulate the affective factors in learning process such as their emotions, motivation and attitudes. To illustrate, students who employ affective strategies are supposed to reduce their anxiety levels and raise self-encouragement.
- d) *Social Strategies*: Social strategies are used by students when they interact with other learners or native speakers. They are strategies that encourage more social interaction in target language (Cohen, 1998: 8).

No matter how many classifications exist, it is obvious that it is not so easy to discriminate all strategies from one another. Thus, categorization remains open for discussion. However, what can first be inferred is that despite different definitions and categorizations, language learning strategy researchers agree that language learners use these behaviors and processes and that these contribute to language learning (Vance, 1999). Second, almost all of the strategies correspond to one another at certain points. They all consider the internalization of new information as a mental process, which can be named as cognitive or direct strategies by different researchers. In addition, social and affective factors are never underestimated and included in the learning process as a way to deal with them. Lastly, comparative analysis of different strategy classification report that O'Malley and Chamot's (1990) classification of strategies into three, cognitive, metacognitive and social/affective, and Oxford's taxonomy are more generally consistent with learners' characteristics.

Memory Strategies

Keeping one's memory active has been a significant issue for thousands of years. Even today, we simply make connections between various concepts and information we need to keep in mind. Memory strategies (traditionally known as mnemonics) have been found to enhance remembering through the connection of new knowledge with familiar words and images (Levin, 1983; Mastropieri, Scruggs, & Fulk, 1990; Woolfolk, 1993). Memory strategies, as one of the most effective strategies in the language learning process, are extremely powerful mental tools. These strategies are used for storing any language item in the mind and retrieving it back when needed. Oxford (1990: 38) states that the mind can store some 100 trillion bits of information, but only part of that potential can be used unless memory strategies come to the aid of the learner. Thompson (1987: 211) supports this view by stating that,

Mnemonics work by utilizing some well-known principles of psychology: a retrieval plan is developed during encoding, and mental imagery, both visual and verbal, is used. They help individuals learn faster and recall better because they aid the integration of new material into existing cognitive units and because they provide retrieval cues.

Memory strategies as a factor in language learning are mentioned in detail specifically by Oxford (1990) who analyzed the LLS in the most elaborated way. As mentioned above, she divides LLS into two categories as direct and indirect. Memory strategies are included in the direct one, which means it is directly related to dealing with the target language and requires mental processing of it.

Arranging things in order, making associations, or reviewing are among the simple principles included in memory strategies. These principles are all linked to *meaning*. Learners need to comprehend the new language, its arrangements and associations at the most effective degree in order to internalize it. Thus, all elements related to it “must be personally meaningful to the learner, and the material to be reviewed must have significance” (Oxford, 1990: 39). When memory strategies are used in certain areas of language such as structuralism or vocabulary, the information moves from “fact level” to “skill level”, which helps to store, remember and use the information in a longer period.

Using memory strategies generally engages in associating different types of material. In language learning, giving verbal labels to pictures or creating visual images for lexical items are possible illustrations. Oxford (1990: 40) gives four reasons for the benefits of visualization for vocabularies:

- The mind’s storage capacity for visual information exceeds its capacity for verbal material,
- The most efficiently packaged chunks of information are transferred to long-term memory through visual images,
- Visual images may be the most potent device to aid recall of verbal material,
- A large proportion of learners have a preference for visual learning.

Linking verbal information with visual is not the only way to store it in the memory. Because some learners may indicate variance in the way they learn best, called their *learning styles*, they can adopt different associations. For instance, while aural learners use sound-oriented connections, others may apply kinesthetic or tactile styles, thus, tend to link the information with motion or touch, relatively. Figure 3 shows how memory strategies are subdivided into four sets by Oxford (1990).

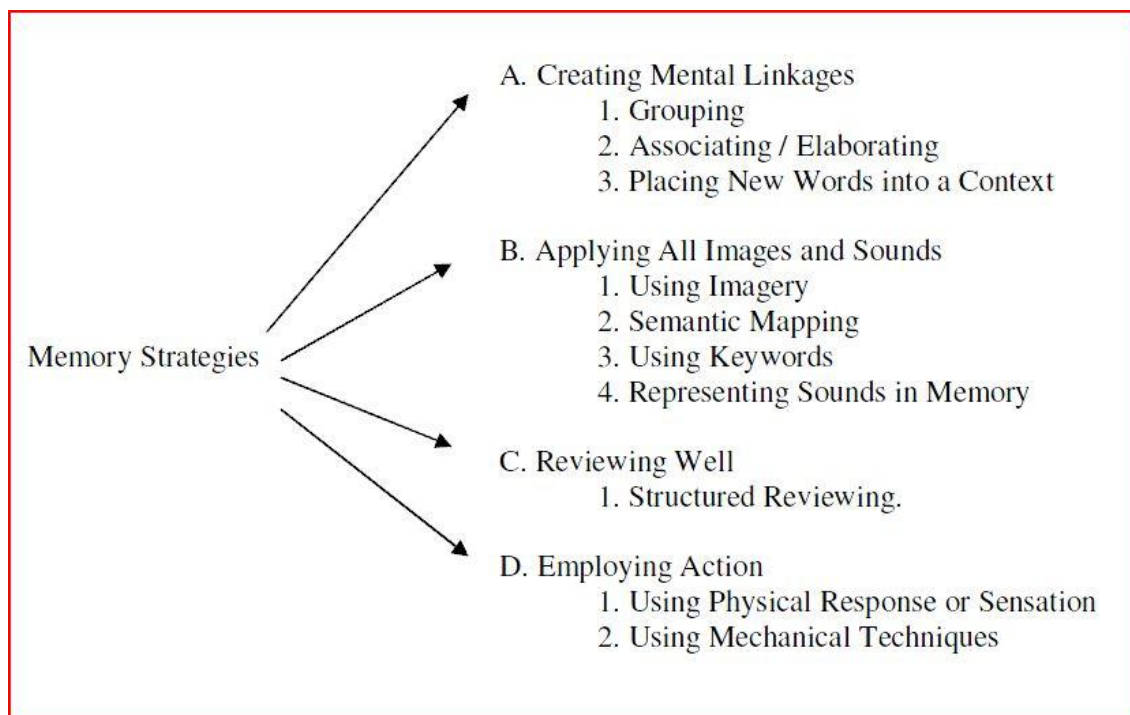


Figure 3: Classifications of Memory Strategies (Oxford, 1990)

- a) **Creating Mental Linkages**
- b) **Applying Images and Sounds**
- c) **Reviewing Well**
- d) **Employing Actions**

What is implied by the first letters of these strategies is that “Take CARE of your memory and your memory will take CARE of you!” (Oxford, 1990: 38). These sets are divided into numerous strategies which are explained in detail below.

Creating Mental Linkages

This set is consisted of three strategies that form the cornerstone for the rest of the memory strategies: grouping, associating/elaborating, and using context.

Grouping

The grouping strategy includes “classifying or reclassifying language material into meaningful units, either mentally or in writing” (Oxford, 1990: 40). It helps to reduce the number of the materials to keep in mind, thus, enabling to remember them easily. Groups can

be established on type of the words (all verbs or nouns etc.), topic (e.g., words about physical appearance), practical function (e.g., terms for things that make a car work), linguistic function (e.g., suggestion, complaint, apology etc.), similarity (e.g., gaze, look, stare, glance), dissimilarity or opposition (interesting/uninteresting, polite/impolite), the way one feels about something (hate, enjoy), and so on. Since, as schema theory suggests (Anderson *et al.*, 1978), we naturally tend to group words according to sense, semantic webs or networks are a good example of strategies working *with* rather than against the cognitive grain. This strategy can be employed at its best by labeling the groups, using acronyms to remember the groups, or using different colors to represent groups (Oxford, 1990).

Associating/Elaborating

This strategy is about “relating the new knowledge with the existing one in the memory, or relating one piece of information to another in order to create associations in memory” (Oxford, 1990: 41). The significant factor about this strategy is that the relations must be meaningful to the learner. Oxford (1990) illustrates the associations with two things such as bread and butter, or multipart development such as school-book-paper-tree.

Placing New Words into a Context

Learners place the new word in a context such as story, dialogue, or even a sentence in order to recall it more effectively. This strategy involves a form of associating/elaborating, in which the new information is linked with a context (Oxford, 1990).

Applying Images and Sounds

This set includes four strategies: using imagery, using keywords, semantic mapping, and representing sounds in memory. The common point about all these strategies is that they all require visual images and sounds.

Using Imagery

Yang and Zhang (2010: 36) define imagery as “the memory strategy in connection with association in vocabulary learning and is used more frequently by the higher-level students, who tend to memorize new words by accumulating all the new words in a text, and then make as many associations as possible.” This strategy is about “relating new language information to concepts in memory by means of meaningful visual imagery, either in mind or in an actual drawing” (Oxford, 1990: 41). These strategies involve relating the word to be retained with some previously learned knowledge, using some form of imagery, or grouping (Mastropieri & Scruggs, 1991). Learners can make use of picture of an object, a set of locations for remembering a sequence of words or expressions, or a mental representation of the letters of a word. This strategy can be used especially for abstract nouns by relating them with certain objects as visuals or pictures.

Semantic Mapping

The strategy is for “making an arrangement of words into a picture, which has a key concept at the center or at the top, and related words and concepts linked with the key concept by means of lines or arrows” (Oxford, 1990: 41). Semantic mapping helps to realize the relation among the ideas in a visual format and creates meaningful associations and grouping.

Using Keywords

This strategy requires “remembering a new word by using auditory and visual links” (Oxford, 1990). There are some steps to follow in using keywords. The first one is to find out a familiar word one’s native language that sounds like the new one in the target language, which is called “auditory link”. The second one is to produce an image of some relationship between the new word and a familiar one, which is called “visual link”. As in other strategies, these links also need to be meaningful for the learner.

Representing Sounds in Memory

Oxford (1990: 42) defines the strategy as “remembering new language information according to its sound”. Various techniques can be used in this strategy in a broad sense provided that they all create meaningful, sound-based association between the new material and existing one.

Reviewing Well

This class involves only one strategy which is structured reviewing. It is difficult to learn a language item just looking at it for once. Learners need to encounter with the information so that they can remember it much easily.

Structured Reviewing

The strategy requires revising the language information at certain intervals. Oxford (1990) provides an example as starting with a review 10 minutes after the initial learning, then 20 minutes later, an hour or two later, a day later, 2 days later, a week later, and so on. The aim is to maintain “over-learning” which means being so familiar with the information that it becomes natural and automatic (Oxford, 1990).

Employing Action

This class has two strategies: using physical response or sensation and using mechanical tricks. The common point of these strategies is that they have meaningful movement or action. They mostly work for the kinesthetic and tactile learners who learn best with motions and actions.

Using Physical Response or Sensation

Oxford (1990: 43) explains this strategy as “physically acting out a new expression or meaningfully relating a new expression to a physical feeling or sensation”. The former one can be exemplified with “standing up” and “softness” can be given for the latter one.

Using Mechanical Techniques

This strategy is defined by Oxford (1990) as “using creative but tangible techniques, especially involving moving or changing something which is concrete, in order to remember new target language information”. Writing words on cards and moving cards from one stack to another when a word is learned is an example for this strategy.

In addition to Oxford, some other researchers (Rubin, 1981; Stern, 1992; Yang, 1999) mentioned the importance of establishing memory-based activities as a strategy in learning language. One of them is Rubin (1981) who classified LLS under two headings as direct and indirect and included ‘memorization’ title under direct strategy, as in Oxford. Moreover, Stern (1992) mentioned ‘memorization’ in his classification under the category of ‘cognitive strategies’. Similarly, in one of his studies, Yang (1999) used the term ‘cognitive-memory’ strategies in order to refer direct analysis, transformation, association, or synthesis of the target language, “which, whether intentionally or not, will consequently facilitate the memory process”. Though it is mostly discussed that memory strategies are useful for learning the new language, some studies show that it is rarely used by the learners (Hong-Nam & Leavell, 2006; Phillips, 1991; Yang, 1999). There may be several reasons for this case. One of them can be the language level of students. Memory strategies are generally adopted by beginner and elementary learners, and as they got more proficient, the frequency to use them gets lower. Another reason can be the confusion about the term ‘memory’ which actually means using certain strategies to recall any information much easily rather than ‘rote-memorization’. The following parts of this study will examine the relation between the memory strategies and vocabulary development in foreign language learning.

Vocabulary Learning

“When students travel, they don’t carry grammar books, they carry dictionaries.”

(Krashen, as cited in Lewis, 1993). Vocabulary learning has been a problematic area for language learners throughout the years. It is generally considered as the basic communication tool, and often labeled as the most problematic area by language learners (Çelik & Toptaş, 2010). Even though learners master all grammatical areas in the language, the communication stops when they do not know the necessary word. Thornburry (2002: 114) stated, “If you spend most of your time studying grammar, your English will not improve very much. You will see most improvement if you learn more words and expressions. You can say very little with grammar, but you can say almost anything with words.” In addition, Lewis (1993) proposed that “language consists of grammaticalised lexis, not lexicalized grammar”. So, vocabulary development needs to show parallelism with mastering syntactical items in the new language.

Since language teaching developed with various methods and approaches, new ideas for developing vocabulary knowledge has been put forward by many researchers and studies. Following these studies, some strategies have been offered, namely vocabulary learning strategies, in order to overcome this problem although, generally, vocabulary learning strategies are considered a sub-group of general language learning strategies in foreign language pedagogy (Carter & McCarthy, 1988; Oxford, 1990; Schmitt, 1997). These strategies have been examined by psychologists, linguistics, and language teachers for over the past decades (Levenston, 1979).

Studies on Language Learning Strategies

There have been numerous studies in order to see the positive outcomes of using learning strategies. These studies include developing various skills in language learning process such as reading, vocabulary, grammar etc. Moreover, whether students can take their

own responsibility and understand the points they need to focus are studied within this framework.

A variety of studies were carried out to look into the difference of using language strategies by successful and unsuccessful learners. In general, the studies found out that more successful students used language strategies more frequently and more appropriately than unsuccessful learners (Abraham & Vann, 1987, 1990; Bremner, 1999; Chamot & Kupper, 1989; Green & Oxford, 1995; Park, 1997; Sheorey, 1999; Wharton, 1997, 2000).

Abraham and Vann (1987; 1990), in two different studies, reported that although the same strategies were employed by unsuccessful and successful learners, the difference came out between their flexibility in strategy choice, and appropriateness in the strategies were applied to the given situation.

Bremner (1999) discovered higher use of cognitive and compensation strategies in students with higher proficiency levels in English among a group of Hong Kong learners. Similarly, Sheorey's (1999) study showed that students with high proficiency level used the strategies more frequently than the ones with low proficient level in English.

In addition, Green and Oxford (1995) investigated the learning strategies used by the students of university in Puerto Rico and the study revealed that the strategies are frequently preferred by successful learners.

Chamot and Kupper (1989: 140) conducted a longitudinal study which revealed that effective students were purposeful in their approach to a task, monitored their comprehension and production for overall meaningfulness and effectively related their experiences and background knowledge to their linguistic knowledge while working on a task.

More recently, the study conducted by Hong-Nam and Leavell (2006) was also about the relation between the proficiency of the students in English and their frequency to use the language learning strategies. Using Oxford's (1990) the Strategy Inventory for Language

Learning (SILL), their study involved 55 ESL students with different linguistic backgrounds enrolled in a college. The study revealed that students in the intermediate level reported more use of strategies than beginning levels. Based on this finding, Hong-Nam and Leavell (2006) claim that the teacher should facilitate learning by addressing to both content and process. For instance, instead of giving a list of 40 vocabularies, the teacher can organize the terms in groups based on a common feature. Moreover, the teacher can emphasize how and why these terms are grouped by focusing on the strategy use.

McMullen (2009) handled the use of strategies by foreign language learners from a different perspective. He claimed that language learning strategies help learners to develop their writing skills and feel more enthusiasm about learning a foreign language. In the study, the participants who were 165 in number and were studying at a university were trained about strategy usage within Cohen's (Cohen & Weaver, 2006: 4) framework which includes the steps of:

1. Strategy Preparation
2. Strategy Awareness-Raising
3. Strategy Instruction
4. Strategy Practice
5. Personalization of Strategies

These steps were explained and implemented on the students in order to make them familiar with the strategies. At the end of the research, it turned out that the students got higher scores from their writing tasks by establishing necessary structures of a paragraph such as unity, coherence or relevance. To illustrate, they were able to use synonyms of the words in order to avoid repetition. Therefore, this study also pointed out the importance of strategy training for language learners.

Another recent research was implemented on 46 university students in order to investigate the relation between their vocabulary knowledge and strategy use by Nacera (2010). The study included SILL by Oxford (1990) and the University Word Level Test (UWLT) developed by Beglar et al. (2000) to measure the vocabulary size by assessing the learners' basic knowledge of words. It was revealed that students used both direct and indirect strategies, most commonly metacognitive ones. Moreover, it was pointed out that the students who had high level of vocabulary knowledge used the strategies more commonly.

Wharton (1997; 2000) had bilingual Singaporean university students as participants to his research learning French and Japanese as foreign languages. His study showed that strategies were mostly adopted by the students who had high proficiency levels. Park's (1997) study also underlined that learners of high proficiency used the strategies more frequently than those of low proficiency.

Moreover, Ghee, Ismail and Kabilan (2010) conducted a study on the relation between strategy use in language learning and the achievement level. The study was conducted on 94 undergraduate students learning English as a foreign language. The students were grouped as high achievement and low achievement ones according to their grades. The study showed that students in high achievement group were more eager to use the learning strategies, mostly the metacognitive and compensation ones. However, the students in low achievement group were less effective in using the language strategies.

Similarly a study was conducted by Liu (2010) for the purpose of revealing that the students who use language learning strategies are more successful in their learning process compared to those who do not use these strategies effectively. He implemented the study with 128 students who were non-English majors at a university. A questionnaire developed by Oxford (1990) and interview were used as instruments. The study revealed that cognitive, metacognitive, memory, affective and social strategies were all the important factor on the

EFL learning and demonstrated significant correlation with the learners' English proficiency. What's more, the memory strategies were among the top strongest positive factors of language proficiency along with the cognitive and metacognitive ones. Therefore, Liu (2010) had no hesitation to emphasize the importance of strategy training and usage in the classroom environment in language teaching.

Considering such studies, it is obvious that successful learners are more tend to use strategies in learning a foreign language, whereas the students who have low proficiency level are less dependent on language learning strategies. Another point to focus on is that the studies help learners to reach higher levels in language learning process.

The studies conducted about LLS are not limited to international sources. Many researchers from Turkey have also investigated the effectiveness of LLS to maintain a successful learning process. The next part will report the studies from Turkey.

Studies Conducted in Turkey on Language Learning Strategies

As applied in other countries, researchers from Turkey examined the importance of LLS from different perspectives. The general focus is on the achievement of the students using the strategies compared to those who do not use them. What was found in common from the studies is that students who used language learning strategies were more successful than the ones who did not apply any of them. Apart from this general focus, the studies aimed to observe the effect of language learning strategies on the development in certain skills of the foreign language such as grammar, vocabulary etc.

Yalçın (2006) focused on the difference between students' use of language learning strategies and their proficiency levels. The participants were preparatory class students at a university. It turned out that the students should be trained about strategies in order to follow the path of language learning in a more smooth way. Because strategy training both

contributes to achievement level and helps learners to become more autonomous and self-directed.

Aslan (2009) focused on the amount of strategies used by the learners in terms of their success levels and the strategies' influence on their achievement level in English. The research was conducted with preparatory class students at a university by using Oxford's (1990) SILL scale. At the end of the study, it was revealed that use of language strategies is positively effective in success in English, and that there was a significant connection between language learning strategies and achievement in English.

In addition, a study on the relationship between the language learning strategy use and language skills was carried out by Kara (2001). Her study was subjected to 25 foreign university students in order to investigate their language learning strategy use. The researcher focused on two aspects of language learning process: whether these foreign learners used different strategies to develop their English and Turkish (the former was instructed, while the latter was in a naturalistic setting) from the aspects of academic proficiency and communicative skill or they adopted only one of the strategies.

The results showed that foreign learners who had to learn two different languages at the same time, one in instructed and the other in a naturalistic environment, used different patterns of language learning strategies in two languages. The learners mostly adopted social strategies in order to develop their communication skill in Turkish, which was in a naturalistic setting. However, they used metacognitive skills to develop their academic English, which was learnt through instruction.

Altan (2004) conducted a study that was similar to Kara's (2001) in terms of applying the research to the foreign learners. Altan (2004) investigated the relationship between the nationalities of the students and their strategy choice in language learning process. The participants were Chinese, Hungarian and Turkish learners, which were in a foreign language

learning department at a university. Oxford's (1990) SILL was implemented in order to find out the strategies that they used. At the end of the research, it turned out that there was no relation between the nationalities of the students and their strategy choice to learn a foreign language.

Çavuşoğlu (1992) conducted a study to understand the relationship between the strategy use and proficiency level of students in English. This study focused on the relationship between the use of language learning strategies and English proficiency levels of learners in terms of two levels of language aptitude as the upper-intermediate and advanced. The study, firstly, aimed to find out whether the subjects at two different levels of aptitude used the same number of strategies in the same frequency. Secondly, he investigated whether there was a direct relationship between the use of language learning strategies and proficiency level of the learners. The upper-intermediate participants were from a private high school, and the advanced ones were senior students at a university. The results showed that the advanced level of students reported to use the strategies more frequently and with a great variety than upper-intermediate level students. Also, it was found out that their proficiency level was higher than the other group.

In another study, Yalçın (2003) focused on another area of language teaching, grammar. He investigated the relationship between the language learning strategies and learner achievement. The participants were 425 in number and were all preparatory class students at a university. A questionnaire was implemented to the students in order to figure out their learning strategies. Students' achievement was based on their mid-term and final examination grades. The study revealed that the students actively use language learning strategies. However, according to Yalçın (2003) the learners still need to be trained about some other language learning strategies such as using mnemonics, taking notes, developing writing skills etc. to develop their grammatical knowledge.

Moreover, Ekmekçi (1999) made a research on the students learning English as a foreign language. His study was about the relationship between vocabulary learning strategies and their overall effects on language learning process. The participants were chosen from 120 students studying in ELT departments. As for the research procedure, the students were presented a questionnaire in order to understand their vocabulary learning strategies. Moreover, TOEFL scores were used for their proficiency levels. At the end of the research Ekmekçi (1999) found ‘studying prefix and suffix of the words’ and ‘note-taking’ strategies as useful in vocabulary learning. In addition, it was found out that vocabulary learning strategies help students to develop their vocabulary knowledge.

Ay (2006) tried to find out what kind of strategies the students used in learning vocabularies. The participants were 9th grade high school students learning English as a foreign language. At the end of the research, it was found out that memory strategies were one of the most common strategies to learn new vocabulary items.

As a part of his research, Cesur (2008) focused on two aspects of language learning strategy use. Firstly, he investigated the most frequently used LLS among university prep class students. It was reported that memory strategies were one of the most common strategies used by the learners. Secondly, he investigated whether there was a relationship between the language learning strategies and students’ academic success in foreign language learning. At the end of the study, it turned out that there was a direct influence between the strategy use and academic achievement of the students.

In brief and to summarize, what the researchers have ascertained is that language learning strategies are often conscious steps taken by the learners to enhance the acquisition, storage, retention, recall, and use of new information (Oxford, 1990). Moreover, what differs is that successful language learners are more eager to adopt the strategies into their own language learning process, thus developing their knowledge. On the other hand, students who

do not prefer language learning strategies are less successful and get lower grades than the ones who use. Therefore, strategy training should be fostered among the language learners in order to have the process in the most effective way.

Studies on Memory Strategies

As mentioned previously, the English Language Teaching literature lacks studies on memory strategies in developing vocabulary knowledge of the learners. However, there are still three accredited studies two of which conducted by foreign researchers, and one of which applied by a Turkish researcher.

In one of the foreign studies, Kron-Sperl, Schneider and Hasselhorn (2008) investigated the benefits of memory strategies in language learning process of kindergarten students. At the end of the study, it turned out that children who were fostered to use memory strategies were more effective for recall performance.

Second, Lawson and Hogben (1998) made a study on a technique of memory strategies, keyword technique, in vocabulary development. In their study, language learners were trained to use keyword strategy to learn new vocabulary items. The study was conducted with 40 students at secondary level who were experienced in language learning. 16 nouns were presented to these students, which would be followed by a training process. It was found out that although the students were experienced language learners and had already adopted certain strategies, they were unable to use keyword technique in an effective way before the training and could not remember the words easily in the long-term period. After the training process, the learners were able to make use of keyword technique to learn new vocabulary items and recall them in a longer period.

Lastly, a Turkish researcher, Cesur (2003) investigated whether memory strategies were helpful to learn terminologies and remember them in the longer period. Thus, he conducted a research in a course where the terminologies about air traffic were taught in

English. The focus of the study was on whether the memory strategies were useful and which technique of the memory strategies were used to recall the words.

The study was implemented with 60 students attending the course. First, the participants were presented a pre-test which involved new vocabularies, then trained about how to use memory strategies in order to learn new word items and remember them in long-term period.

The findings showed that using memory strategies to learn new vocabulary items were extremely helpful both in developing and in remembering the words. In addition, illustrating the new words with their existing knowledge and associating them with their experiences were found as the most frequently used techniques.

The main benefit of all strategies, including vocabulary learning and memory strategies is that they all enable learners to take the responsibility of their own learning process and direct it in the way they need. The main strategies presented by the scholars can be ranged as:

- a) *Repetition*: Repeating the word and its meaning until it is assimilated. Making up stories using the new vocabularies as many as possible, reading texts containing new vocabularies are other techniques used for this strategy.
- b) *Analyzing the structure*: Looking into the prefix or suffixes of the words, understanding its part of speech, thus leading to the meaning,
- c) *Using a context*: Placing the new word into a sentence, a dialogue or a story. Guessing the meaning of a word from contextual clues.
- d) *Categorization*: Classifying the new vocabulary according to meaning, formal or informal speech, parts of speech, alphabetical order or type of using it in daily life such as clothing, weather etc.

- e) *Dictionary*: Using a monolingual or bilingual dictionary to understand the meaning and pay attention to the sample sentences. Studying on the words' synonyms.
- f) *Linking to existing knowledge*: Associating the meaning of a vocabulary with already-existing one in the learner's mind based on his experiences or background knowledge.
- g) *Visualization*: Illustrating the words with any kinds of images, such as pictures, photographs, charts, and graphs or drawing pictures on one's own.
- h) *Mnemonics*: Jotting down the key words near the new vocabularies. Words with similar sounds, creating visual images or even the equivalence in first language can be used as key words.

All of these strategies have been mentioned by numerous researchers (Cohen, 1987; Stoffer, 1995; Hogben & Lawson, 1996; Cohen & Weaver, 1997; Schmitt, 1997; Gu & Johnson, 1996; Nation, 2001; Cook, 2001) based on different categorization under the umbrella term of 'vocabulary learning strategies'. For example, while Cohen (1987) directly divides the strategies into four groups, one which is 'using mnemonic devices', Hogben and Lawson (1996) mentions the mnemonics in one of the four categories called 'complex elaboration' for vocabulary learning. In addition, Cook (2001) divides the strategies into two categories as (1) understanding the meaning, (2) acquiring the words and includes the strategies of dictionary, guessing from the context and linking the words in two different languages with similarities in the former category. However, Stoffer (1995) who has showed a notable effort in the area of taxonomy development deals with them separately, one by one.

In addition, leading name Schmitt (1997: 205) used Oxford's ranked strategies; social, memory, cognitive, metacognitive, and compensation. However, he added one more class named determination, in order to explain the situation in which when the learner discovers the meaning of a word without recourse to other people's experiences. In other words, Schmitt (1997), like other researchers (Cohen, 1987; Stoffer, 1995; Hogben & Lawson, 1996; Cohen

& Weaver, 1997; Gu & Johnson, 1996; Nation, 2001; Cook, 2001; Oxford, 1990) listed the usual vocabulary learning strategies such as understanding the parts of speech, checking for L1 cognate, guessing from context, using dictionary, word lists or flashcards. However, what he emphasizes with this category is the learner's own analysis about the newly-learned vocabulary, which is not provided by any other researchers.

Last but not least as classification schemes, firstly, Nation (2001: 218) distinguished strategies relating to the *planning* of vocabulary learning (e.g. choosing words, planning repetition), from strategies involving access to *sources* of vocabulary knowledge (e.g. analyzing word parts, using parallels with other languages), and *learning processes*. To compare with other researchers, what *source* category involves is handled under the title of 'word feature analysis' in Hogben and Lawson's classification (1996) and 'structure' category by Cohen (1987). Lastly, Gu and Johnson (1996) developed a classification which divides the strategies into five: guessing strategies, dictionary strategies, note-taking strategies, rehearsal strategies, encoding strategies, and activation strategies.

Though the researchers show differences in their categorizations, almost all of them mention the same strategies for vocabulary development. In the following part of this chapter, memory strategies will be handled in detail due to the focus of this study.

The Memory Strategies for Vocabulary Learning

The importance of vocabulary learning and its role in communication has been emphasized so far. Alternative ways have been presented by different researchers to facilitate vocabulary development. One of these ways is the memory strategies which include, in general terms, entering information into memory and retrieving it. Memory strategies involve different types of techniques to use in vocabulary learning and practicing. These techniques are categorized under various titles by a number of researchers. The next part refers to the way in which different scholars deal with memory strategies. Because the most

comprehensible classification has been provided by Oxford (1990), all of them are compared to hers in order to make the concepts more concrete and show the parallelism among them.

Cohen (1987) states memory strategies referring to two categories called '*semantic strategies*' and '*the use of mnemonic device*'. What is included in semantic strategies is thinking of synonyms so as to build a network of inter-linking concepts, clustering words by topic group or type of word, or linking the word to the sentence in which it was found or to another sentence. This strategy is mentioned in Oxford's memory strategies (1990) under the categorization of "semantic mapping". The latter memory strategy of Cohen, the use of mnemonic device, requires creating a cognitive link between an unfamiliar foreign language word or its translation by means of a cognitive mediator. This strategy, somehow, includes the cognitive aspect of strategies; however, connecting unknown vocabulary with a familiar one shows that it is a memory-based one. According to Cohen (1987), this connection can be achieved by any cognitive device such as experiences, images, similar sound words, photos, or by even L1 equivalences. The important point is to use such helpful cues that they should evoke the information in the mind and recall it easily.

Stoffer (1995) developed a categorization in nine headings, one of which is namely 'memory strategies'. The explanation that Stoffer brings and techniques he includes for memory strategy is same with Oxford's (1990). Nevertheless, what Oxford (1990) mentions under the category of memory strategies are handled separately by Stoffer (1995). For instance, Stoffer has the strategies of (1) *creating mental linkages*, (2) *involving physical actions* and (3) *organizing words* apart from the memory strategies, while Oxford (1990) directly puts them under the category of memory strategies. Therefore, what can be inferred is that Stoffer (1995), actually, deals with several memory strategies under different categories despite seeming just one.

Another study dividing the vocabulary learning strategies in four was made by Hogben and Lawson (1996: 118). Their categories were (1) repetition, (2) word feature analysis, (3) simple elaboration, and (4) complex elaboration. The memory related ones are distinctively included in the last two ones. To illustrate, '*simple use of context*', '*appearance similarity*' and '*sound link*' are stated as '*placing new words into a context*', '*using keywords*' and '*representing sounds in memory*' by Oxford (1990), relatively. Another example can be made by the mnemonic technique included in complex elaboration category, which is directly related to memory strategy.

In addition, Weaver and Cohen (1997) expressed memory strategies with different categories. These strategies are (1) categorization, (2) key word mnemonics, (3) visualization, and (4) language transfer. The first one, categorization, refers to 'grouping' in Oxford's (1990) taxonomy, which means classifying the vocabularies in terms of certain common points such as parts of speech, alphabetical order etc. The second one, keyword mnemonics, are used in Oxford's taxonomy with the same name, which accounts for using words with similar sounds for the new vocabularies or creating a visual image that is reminiscent to the target word. The last strategy, visualization, directs to using mental images, photographs, charts, graphs or any kinds or drawings to recall the vocabulary much easily. This strategy is also explained in Oxford's taxonomy under the title of "using imagery". Thus, despite not calling directly as memory, Weaver and Cohen (1997) identified these strategies as part of vocabulary development.

Gu and Johnson (1996) identifies two different categories involving certain memory strategies although they do not point out namely 'memory', like some other researchers. These two categories are *encoding strategies* and *activation strategies*. Encoding strategies have the strategies of:

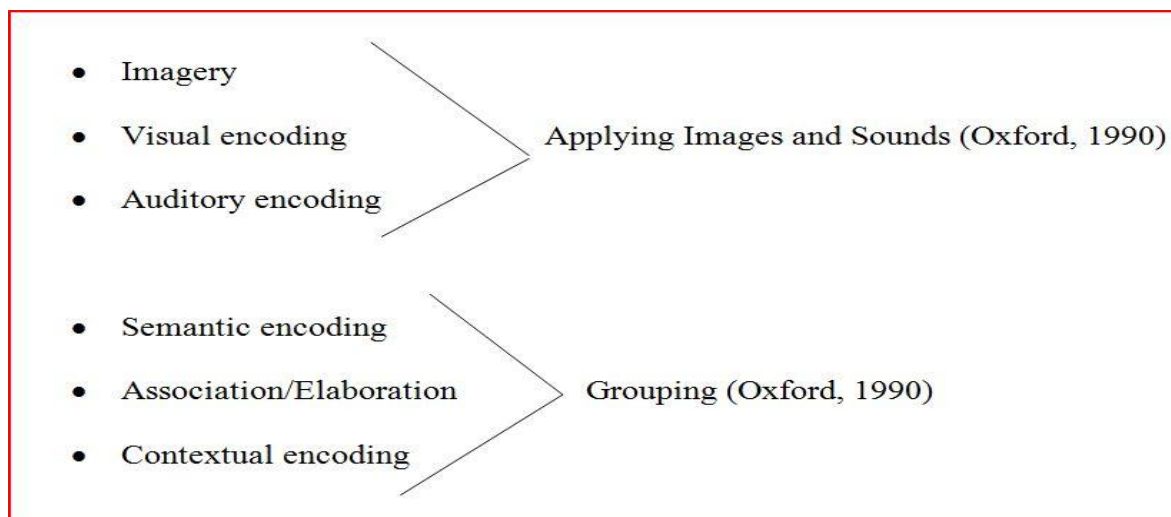


Figure 4: Encoding strategies (Gu & Johnson 1996)

All of these strategies are regarded as memory strategies by Oxford (1990) who calls them in the same way under different classifications.

The latter strategy of Gu and Johnson (1996) about memory is activation strategies which mean using pictures in specific locations to remember vocabulary lists, and establishing an acoustic and image link between an L2 word to be learned and a word in L2 that sounds similar.

Cook (2001) divides the strategies in two groups each of which considers some strategies about memory. He names the categories as *the strategies for understanding the meaning of words*, and *the strategies for acquiring words*. Though the former one seems like more cognitive based, it has the technique of *linking to cognates* which means comparing two different languages and focus on the similarities in words. This strategy corresponds to ‘using imagery’ in Oxford’s taxonomy. The latter strategy of Cook (2001) considers ‘*organizing words in the mind*’ and ‘*linking to existing knowledge*’ as part of vocabulary development. Organizing words allows the learner to group them and keep in mind in a more organized way, while linking to existing knowledge is another expression of ‘associating/elaborating’ in Oxford’s taxonomy.

Lastly, Schmitt (1997) took on memory strategies as a divided category under the ‘*consolidation*’ title. Consolidation strategies refer to recalling vocabulary items, thus it has direct connection to memory. Schmitt (1997: 205) defines memory strategies as “approaches which relate new materials to existing knowledge”. He includes many strategies such as pictorial representation, images, experiential connections, using synonyms, antonyms, semantic maps and grouping words together, using keywords, making up physical actions for words etc. Because he adapted Oxford’s taxonomy in accordance with his strategies, the classification by Schmitt overlaps with Oxford’s.

Though many researchers define memory strategies with their own terms and put them under different categories, there are many common points. First of all, similar strategies or techniques such as visualization, keywords, grouping etc exist. Second, there is a consensus upon the importance of memory strategies on vocabulary development that are handled separately.

CHAPTER III

METHODOLOGY

Introduction

This chapter concentrates on the way the research was carried out to answer the research questions. Under the first heading, research questions and summary of the methodology are presented. Then, data collection process along with the setting, materials and instruments, procedures and analysis are provided.

Research Questions and Procedures

This paper provides the results of a study which aim at discovering the difference between the effects of strategy training and the list technique on vocabulary development. It focuses on determining the relationship between student achievement and memory strategies employed by English language learners at the age of 14.

This is a classroom study which was employed through two different ways of investigation. In the first part of the study students responded to a questionnaire. In the second part, students were tested with a test including 39 items as a pre-test at the beginning of the treatment. After the treatment, the same test was given to the participants as a post-test in order to measure the degree of achievement tests. The differences between the test scores served as an index of students' development.

In the last phase of the study, in order to be able to measure the long term effects of the treatment the same test was handed out to the pupils as a long- term retention test four weeks after the application of the post test.

The results of the study were expected to provide answers to the research questions below;

RQ 1: What are the effects of memory strategies on vocabulary development of intermediate level EFL learners?

RQ 2: What is the difference between the treatment styles in terms of post-treatment and long retention test obtained from the experiment?

Participants and Setting

This is an experimental-motive based research which includes an experimental group, a control group, a questionnaire, a pre-test, a post-test and a long term retention test. The participants of the study were 20 Austrian and 6 Turkish students studying at the 8th grade of a primary school located in Herzogenburg/Krems an der Donau in Austria. The study was carried out in the fall semester of 2010-2011 academic year. It lasted 12 weeks between the dates 15th of October 2010 and the 15th of January 2011. The participants of the study group were 15 females and 11 males at the age of 14.

Austrian Education System

Schneeberger (2007) describes the Austrian educational system as with three distinct learning stages and educational philosophies. Compulsory education for all children who are permanent residents of Austria, regardless of national origin, ranges from ages of 6 to 15. Compulsory education is divided approximately between a uniform four-year primary school, a minimum of four years at a secondary school, and, depending on aptitude and interest, a minimum of one year in a pre-professional program.

The secondary schools reflect differences in aptitude and interests in their curricula, length of study, admission criteria, and diplomas. Secondary schools are generally divided into a lower and upper level. Given the different emphases of the various types of secondary schools, and the qualifications to which they lead, the issue of tracking students at a relatively young age into academic, technical, or vocational secondary schools requires that important decisions about a child's educational future must be made relatively early. In its attempt to provide a more permeable secondary educational system for children, Austria continues to develop alternative means securing the necessary qualifications to transfer among available types of secondary schools.

Students in Austria have various track options after attending the primary school. The decision as to which track a student pursues can be made as early as the age of 10 or 11 and as late as 14 or 15. Students at this level have usually begun foreign language study (most commonly English) so those interested in teaching English in Austria will likely be working with secondary school students.

Instruments

The data were collected through a questionnaire and an achievement test. The questionnaire was developed by the researcher with the aim of measuring the level of the students' awareness about how much they have learned the target words. It has three options which are: "I know the word", "I am not sure" and "I don't know the word". In addition to this the achievement test was developed by the researcher, as well. It has four different sections which measure the different features of the target words such as category, synonymy or antonym. These instruments were used as the pre, post and long term retention tests. Before the treatment the pre-test, at the end of the treatment the post-test and 4 weeks after the treatment a long-term retention test were carried out.

Reliability of the materials

To determine on the reliability of the materials a pilot test was carried out at Zonguldak TED College over 37 (22 male and 15 female) 8th grade secondary school students at the age of 14 in the fall semester of 2010-2011 academic year. These participants were selected consciously with the aim of testing the reliability of the materials. The achievement test and the questionnaire were given to the students on the same day.

The opinions of two experts were consulted for both face and content validity of the two scales. In order to enable the content validity, the vocabulary words involved in the scales were selected from the course book which was being used at the time of the treatment.

For the reliability analysis of the achievement test Kuder Richardson 21 (KR 21) coefficient was calculated and .70 for the first dimension, .83 for the second and third dimension, .84 for the fourth dimension were counted up. For the reliability of the questionnaire Cronbach's alpha coefficient was calculated and a value of .88 was found.

The questionnaire consists of 50 questions comprising "I know", "I do not know" and "I am not sure" 3-Likert type options. The achievement test covers 4 sections and a total of 39 items which have a good factor analysis results (see Table 1). The scale includes gap-filling and matching questions. Factor analysis was conducted for construct validity of the scale. Accordingly, sub-size questions separated into 4 sections have been considered and evaluated. According to this scale, the size of the estimated 0001 level, KMO (Kaiser-Meyer-Olkin) value and the Barlett Test value of .57 and 65.84 were found to be significantly evaluated.

Table 1

The factor analysis of items with best results

Section1	Section 2	Section3	Section4
F1	P2	W1	R1
F2	P5	W3	R2
F3	P7	W4	R4
F4	P10	W5	R5
F5	P11	W6	R6
F6	P12	W7	R7
F7	P13	W8	R8
F8	P14	W9	R9
	P16	W10	R10
	P17		
	P18		
	P19		
	P20		

It has been ascertained that the analysis of 8 items, whose core value is greater than 1, were collected under 2 factors. The variance explained on the scale of these two factors is 53.201%. Substances defined as the two factors related to the common variances were between .479 and .724. According to these results, it has been observed that the two factors emerged as significant factor in the analysis explains the majority of the variance on the substances of the total variance and the scale. In addition, when the analysis examined it has been seen that all of the eight items' first factor load value is .340 and over. With the analysis of the varimax rotation it has been identified that the load value for substances in the first factor was found to vary between .512 and .817 and the load values for substances in the second factor was determined to vary between .301 and .838. In the analysis about the second dimension, at the end of the factor analysis, 13 substances of 20 substances were decided to take place in the scale and it has been seen that these 13 substances were collected under 4 factors whose core value is greater than 1. The total variance which has been explained by these 4 factors is 72.924% and this variance also explains the majority of the variance about the scale. When the first factor load values examined, the load values of the substance was found to range from .410 to .887. 9 items calculated on the third dimension of KMO was

calculated as the coefficient=.786 and Barlett test was significant. It has been determined that the items of this dimension were collected under two dimensions whose core value is greater than 1. The total variance explained on the scale of these factors was calculated as .786. The common variance of the identified factors related to the substances vary between .453 and .780. The first factor load values vary between .382 and .883. The last dimension consists of 9 items and the calculated KMO of the nine items was found as the coefficient as .726 and Barlett test was significant ($p < .001$). As a result of factor analysis, the scale items were collected under 2 factors whose core value is greater than 1.

These two occurred factors explain the 57,527% of the total variance of the scale. The common variance values of these two factors ranged from .335 to .724. The load values of the first factor are between .545 and .783 values. After varimax rotation it has been determined that the load values of the first factor vary between .720 and .815 and the load values of the second factor vary between .419 and .821.

Data Analysis

The data obtained were analyzed by using SPSS version 15. In order to control the variance homogeneity of the groups Levene test was consulted. Box's M statistic was used for the equality of the covariance. Two-factor ANOVA test was used for the complex evaluations of the pre, post and long term retention test points comparisons and the LSD test was used for multiple comparisons. While scoring the achievement test, the score of each student was obtained by giving 1 for correct answers and 0 for incorrect answers. The scores that can be taken from the achievement test vary from 0 to 39. In the evaluation of the questionnaire, the three options "I know", "I am not sure" and "I do not know" were given as 1, 2 and 3 points and the score of each student was calculated. While the lowest score available for the questionnaire was 50, the highest score was 150.

CHAPTER IV

FINDINGS OF THE STUDY

Introduction

In this section, descriptive statistics of students' achievement test scores and the differences in the scores of the pre-test, post-test and long-term retention test are examined.

Findings on the Achievement Test Results of the Control and Experimental Groups

This part of the chapter will give information about the comparative results of the two participating groups.

Table 2

Descriptive Statistics of Experimental and Control Group Students' Pre, Post and Long term Tests

	N	$\bar{X}$	SS
Pre-Control	13	12.15	5.429
Pre-Experimental	13	13.69	5.750
Total	26	12.92	5.534
Post-Control	13	20.23	2.891
Post-Experimental	13	28.00	5.400
Total	26	24.11	5.805
Long-term Control	13	19.76	2.420
Long-term Experimental	13	27.15	5.304
Total	26	23.46	5.522

As shown in Table 2, there is a value of 1.54 as difference between the pre-test scores of the participants ($\bar{X}_{(Control)} = 12.15$ and $\bar{X}_{(Experimental)} = 13.69$). Post-test scores of the control and experimental groups ($\bar{X}_{(Control)} = 20.23$, $\bar{X}_{(Experimental)} = 28.00$) consist of a difference in the value of 7.77. The difference mentioned above was found to be 7.39 in the long-term retention test analysis ($\bar{X}_{(Control)} = 19.76$, $\bar{X}_{(Experimental)} = 27.15$). In order to test whether the differences in scores were statistically significant, the two-Factor ANOVA for the complex evaluations was consulted and the results were as follows.

So as to determine the suitability of the variance analysis to find the significance of the change in scores, the groups' equality of covariance tested and the covariance was found to be homogeneous ($F_{(6-4173,283)}=13.588$; $p>.05$) (Table 3) .

Table 3

Testing the Assumption of Covariance Matrix Equality (Box's M test)

Box's M	F	Sd1	Sd2	P
13.588	1.955	6	4173.283	.069

To test the hypothesis that the variances belong to the groups are equal, Levene statistics results were examined and it has been observed that the assumption is provided for all three variables (respectively $F_{(1-24)}=.008$, 2.380 ve 4.141; $p>.05$) (Table 4).

Table 4

Testing the assumption of Homogeneity of Variances (Levene Test)

	F	Sd1	Sd2	P
Pre-test	.008	1	24	.928
Post-test	2.380	1	24	.136
Long-term	4.141	1	24	.053

As can be seen in Table 5, it has been determined that the achievement test scores of the experimental and control groups show a significant difference between the beginning and the end of the treatment. In other words, the joint effects of the repeated measure factors and being in the different process groups on the achievement test scores was found to be significant ($F_{(2-48)}=3.685$; $p<.05$). On the other hand, the resulting $F_{(1-24)}=25.134$ in value is significant at the level of .001 and it can be said that a significant difference occurred among the participants' mean scores of the achievement test before and after the treatment and after the follow-up session, as well.

Table 5

The ANOVA results of the pre,post and long-term retention test scores of the achievement test

				Between Subjects	
Source	KT	Sd	KO	F	P
Between subjects	1180.167	25			
Group	603.705	1	603.705	25.134	.000
Error	576.642	24	24.019		
				Within Subjects	
Source	KT	Sd	KO	F	P
Within subjects	3242.667	52			
Measurement	2051.872	2	1025.936	47.704	.000
Group- *Measurement	158.487	2	79.244	3.685	0.32
Error	1032.308	48	21.506		
Total	4422.834	77			

Besides the above results, the results show that there is a significant difference among the mean of the total scores obtained from the pre-test, post-test and long term retention test scores of the experimental and control groups ($F_{(2-48)} = 47.704$; $p < .001$). The results of the post-hoc LSD multiple comparison test which was consulted to find the resource of the score differences determined between the groups are given in the Table 6.

Table 6.

The Results of LSD Analysis-Based Multiple Comparison Test Scores of the Achievement Test

(I) Groups	(J) Groups	Mean Difference	SS	P
		(I-J)		
Post-test	Pre-test	11.192(*)	1.513	.000
	Long-term test	.654	1.028	.531
Long-term	Pre-test	10.538(*)	1.272	.000
	Post-test	-.654	1.028	.531

* Difference is significant in the level of .001

According to the results of the post-hoc LSD multiple comparison test, the mean scores of the post-test and long-term test groups on the achievement test, according to the average of the control group, was statistically significant in favor of the two groups (Table 6). These results suggest that the treatment based on the strategy training was more effective in increasing the success and retention of the success.

Findings on the Questionnaire Scores of the Experimental and Control Groups

The participants' pre-treatment scores of the questionnaire were $\bar{X}_{(Control)} = 98.30$, $\bar{X}_{(Experimental)} = 97.00$ and they were found as close to each other in value. The post-treatment mean scores of the questionnaire were calculated as in the value of $\bar{X}_{(Control)} = 118.07$ and $\bar{X}_{(Experimental)} = 130.46$, a difference of 12.39 in value was occurred between the two mean scores. The long term retention scores were calculated as $\bar{X}_{(Control)} = 112.92$ and $\bar{X}_{(Experimental)} = 130.30$ and a difference of 17.38 in scores were determined between the scores (Table 7).

Table 7

Descriptive Statistics of Experimental and Control Group Students' Pre, Post and Long term Questionnaire Scores

	N	$\bar{X}$	SS
Pre-Control	13	98.30	11.441
Pre-Experimental	13	97.00	16.482
Total	26	97.65	13.916
Post-Control	13	118.07	12.209
Post-Experimental	13	130.46	14.580
Total	26	124.26	14.611
Long-term Cont	13	112.92	13.774
Long-term Ex	13	130.30	13.864
Total	26	121.61	16.184

In order to test whether the score differences are statistically significant analysis of variance was consulted and the results are given below. To determine the suitability of variance analysis, the covariance of the groups tested and it was determined that the covariances were equal ($F_{(6-4173,283)}=5.479$; $p>.05$) (Table 8).

Table 8

Testing the Assumption of Covariance Matrix Equality (Box's M test)

Box's M	F	Sd1	Sd2	p
5.479	.788	6	4173.283	.579

To test the hypothesis that the variances of the comparing groups are equal Levene statistics was utilized and the variance for all three variables were found to be homogeneous (respectively $F_{(1-24)}=.876$, $.946$ and $.046$; $p>.05$).

Table 9

Testing the assumption of Homogeneity of Variances (Levene Test)

	F	Sd1	Sd2	P
Pre-Quest	.876	1	24	.359
Post-Quest	.946	1	24	.340
Long-term-Quest	.046	1	24	.832

Questionnaire scores of the experimental and control group showed a significant difference before and after the test and after the monitoring period, in other words, the joint effects of the repeated measure factors and being in the different process groups on vocabulary development was found to be significant ($F_{(2-48)}=3.461$; $p<.05$). On the other hand, the resulting $F_{(1-24)}=7.929$ value of individuals prior to the experiment, after experiment after the survey proves that there is a statistically significant difference between the mean scores of the questionnaire scores.

Table 10

The ANOVA Results of the Pre, Post and long-Term Retention Test Scores of the Questionnaire

				Between Subjects	
Source	KT	Sd	KO	F	P
Between subjects	7067.487	25			
Group	1755.128	1	1755.128	7.929	.000
Error	5312.359	24	221.348		
				Within Subjects	
Source	KT	Sd	KO	F	P
Within subjects	20835.999	52			
Measurement	11176,333	2	5588,167	31,773	.000
Group-Measurement	1217,410	2	608,705	3.461	.039
Error	8442,256	48	175.880		
Total	27903.486	77			

F statistics which was calculated in the value of $F_{(2-48)}=31.773$ showed that there are significant differences among the mean scores of the pre, post and follow-up questionnaire scores which were carried out in the line with the memory strategy training based vocabulary treatment and the list technique that was utilized in the control group.

In order to find the resource of the identified differences in terms of questionnaire scores a post-hoc LSD multiple comparison test was carried out and the results are given below.

Table 11

The Results of LSD Analysis-Based Multiple Comparison Test Scores of the Questionnaire

			Mean Difference		
(I)	Groups	(J) Groups	(I-J)	SS	p
Post-test		Pre-test	26.615(*)	3.961	.000
		Long-term test	2.654	3.294	.428
Long-term		Pre-test	23.962(*)	3.748	.000
		Post-test	-2.654	3.294	.428

* Difference is significant in the level of .001

As can be seen in Table 11, according to the multiple comparison test, post-test and long-term retention test scores of the experimental group was statistically significant in favor of both test scores when compared with the control group scores. Therefore, it is understood that the memory strategies based vocabulary training dealt with the experimental group is more effective than the list technique based vocabulary training dealt with the control group and moreover, the results provided that it has a significant contribution to the students' vocabulary development and the retention of this development.

CHAPTER V

CONCLUSION

Introduction

This chapter starts with a brief summary of the study. Later, it handles the discussion of the findings gathered from the data analysis and the possible ways to implement them on teaching process. Lastly, suggestions for further study are provided based on the limitations.

Summary of the Study

The aim of this study was to prove the effectiveness of memory strategies in learning vocabulary in foreign language teaching. Those students usually used listing technique while learning vocabulary along with the first language equivalences was claimed to be an inefficient way when compared to using memory strategies. Thus, the study investigated whether memory strategies affect the vocabulary development and whether they are more effective than listing technique in learning new vocabularies.

In order to achieve the aim of the study, quantitative research methods were used. The data was collected through both a questionnaire and an achievement test which were used as a pre, post and long term retention tests. The study was carried out with 26 students at intermediate level. Firstly, a pilot study was carried out with 20 students of a different institution. The students in the pilot group were at the same level of language proficiency, Intermediate, and the same age as those in the experimental and the control group. The results gathered from the pilot group were analyzed through SPSS in order to find out the reliability analysis and the validity analysis. After the piloting, the main study was conducted with 26 subjects.

Afterwards, the responses of the participants and the data collected from the pre and post tests were studied to compare and see the effectiveness of memory strategies in

vocabulary teaching. Lastly, the same achievement test was conducted with the students four weeks after the application in order to measure the long term effects of the techniques.

Discussion of the Findings

The first research question of this study investigated the effects of memory strategies on vocabulary development of intermediate level EFL learners. The findings revealed that students who used the memory strategies were more successful than those using the listing method in learning and remembering the vocabularies in foreign language. Firstly, they became the active participants of vocabulary activities and got higher scores from the achievement test. Moreover, they could find the best ways among various strategies for themselves to learn the vocabularies, thus, developed autonomy. To illustrate, they were able to determine on whether keyword method, grouping or any other memory techniques works well in their vocabulary learning process.

The findings of this study showed a significant parallel with many precedent studies. As Rubin (1975) described the good language learner is the one who finds the most appropriate strategy for him to overcome the difficulties he faces during language learning. In many studies conducted in various geographical and cultural settings, students who have high level of achievement were reported to have used wide range of strategies in contrast to the ones who have low level of achievement. To illustrate, in their studies, Green and Oxford (1995), O'Malley et al. (1985), Hong-Nam and Leavell (2006), Ghee, Ismail and Kabilan (2010) found that more successful learners used more language learning strategies and showed great development in various skills of the target language. Similarly, in most studies conducted by Turkish researchers (Aslan, 2009; Cesur, 2008; Çavuşoğlu, 1992; Yalçın, 2006) it was revealed that students who had high achievement level used strategies much more in number and in frequency than the ones having low achievement.

However, there are some studies showing different results. For example, Vann and Abraham (1990) found that successful learners used less strategies than unsuccessful ones, but what differed was that successful learners were more aware of what they were using and adopted few strategies in the most effective and conscious way, whereas the unsuccessful ones got lost in a wide range of strategies. In addition, some studies pointed that successful learners do not always show similarities in strategy use. As some researchers like Ehrman and Oxford (1989), Kaylani (1996), Rubin (1975) found out that language learning strategies are largely affected by various factors such as gender, culture, motivation etc.

Secondly, according to the results of this study, students were more integrated with the vocabulary learning process. The process in which the teacher was a guide helped the students to recognize the memory strategies and discover which one is the best for which vocabulary and for their learning styles. Therefore, they could actively use the strategies and learn the vocabularies in the most efficient way.

Another effect of memory strategies was that the students were able to remember the vocabularies in the following weeks after the implication. The long-term retention test, which was applied in order to find out whether they could bring back the information even when it is not revised regularly, showed that the students could still identify the meanings and function of the vocabularies, and could use them in appropriate context. This finding shows parallelism with Chamot and Kupper's (1989) longitudinal study. They also found out that language learning strategies were helpful for students to remember what they had learnt in a longer period. Because during the implementation of the strategies, students found the chance to integrate their own experiences with the language learning process, it was much easier for them to recall the necessary information.

Furthermore, the study underlines that students learn a vocabulary rather than memorizing it as a short-term storage in the mind. Based on common definitions of strategies

by some researchers (Chamot, 1987; Cohen, 1998; O'Malley et al., 1985; O'Malley & Chamot, 1990; Oxford, 1990) claiming that “strategies are operations to learn, store, retrieve and use the necessary information”, it can be revealed that memory strategies were helpful in remembering and using the previously learnt information. However, the students using only listing technique as a way of learning vocabulary could not gain the same level of achievement with the ones using memory strategies in the long-term retention test. Because listing technique puts the new vocabulary in the short-term memory, which results in forgetting the function and the usage of the vocabulary in a context even though the meaning can still be achieved.

Cohen and Apek (1980) also reached the same result for their students in using memory strategies to learn new vocabularies. At the end of their study, the students who made use of associations to learn new vocabulary items were also successful in recalling those words in the post and long-term retention test. Furthermore, Lawson and Hogben (1998) carried out a study which shows parallelism with these findings. The researchers trained students about the use of key-word technique in vocabulary development. As some researchers (Oxford, 1990; Schmitt, 1997; Weaver & Cohen, 1997) pointed out the key-word technique is among the memory strategies to learn new word items. Therefore, Lawson and Hogben's (1998) study found out that using key-word technique was effective in learning new vocabulary items and remembering them in long term.

The second research question aimed to examine the difference between the vocabulary learning techniques, memory strategies and listing method, in terms of success and retaining success obtained from the experiment. The findings revealed that although both the control and the experimental groups achieved the test almost at the same level before the implementation of the strategies, the experimental group became much more successful than the control group after learning vocabularies with the help of memory strategies. This result

shows that memory strategies are more effective in teaching vocabulary. Moreover, the achievement levels of the groups showed differences in the long-term retention test. The group using the memory strategies for vocabulary development got higher scores than the one using the listing method. In other words, the pre-test and long-term retention test scores of the control group shows little difference than those of the experimental group, which means while the experimental group could still remember and use the vocabularies appropriately in context, the control group had difficulty in the achievement test.

This finding is also supported with some other previous studies. Though the participants show differences in age, the study conducted by Kron-Sperl, Schneider and Hasselhorn (2008) with kindergarten students about the effects of memory strategies on learning new vocabularies reached the same results. At the end of the study, it turned out that the children who were encouraged to use memory strategies were able to remember the new vocabularies. In addition, in Yang's (2010) study which aimed to underline the importance of language learning strategies in overall achievement in language proficiency revealed that memory strategies were among the most commonly used strategies by successful learners in learning new vocabulary items. Likewise, Ay (2006) found out that most of the students preferred using memory strategies in learning new vocabularies. Another study conducted by Cesur (2003) who aimed to teach airway terminologies in English by using memory strategies proved that students reached high level of achievement levels in vocabulary use at the end of the research. Moreover, using experiences and background knowledge to illustrate the learning were the most commonly preferred technique of memory strategies.

However, in the study conducted by Yüksel and Koşar (2001) on university level students, memory strategies were revealed as the least commonly used ones among the students in language learning process. It was believed that this result showed differences due to the background study of the learners and their previous high school experiences.

Another parallel study conducted by a Turkish researcher Akın (2001) also found out that strategies including pictures, games, photos or bodily kinesthetic activities were effective in teaching and learning new vocabulary items.

As for the questionnaires, most of the students, both in experimental and control groups, claimed that they know the meanings of the vocabularies though they could not achieve the test in the first phase. This may have several reasons. Firstly, the students may actually know the meaning of the vocabularies; however, they can be unsuccessful in using them in a context, which is the case of rote-memorization and lack of production. This case can be achieved by using memory strategies. Because students give a meaning to the vocabulary, not just by recognizing its meaning, but also illustrating it with his/her experiences, pictures, maps, graphs, and even physical actions, which helps them to remember it in the long term.

Secondly, they may feel anxious about stating that they do not know the meaning of vocabulary due to their level. Most of the students cannot understand what is written or spoken because of their lack of vocabulary knowledge. This can be acceptable for low levels, but intermediate level students are supposed to be able to cope with the vocabularies and understand the context. So, the students may not have wanted to seem low level and felt anxious about it. This case can, also, be handled by using memory strategies. If the students both know the meaning and the function of a vocabulary in a context, they feel more motivation. Even if they do not know the meaning of a vocabulary, they are encouraged to deal with it. As Rubin (1975) indicates successful language learners who use language learning strategies are tend to take risks and do not care about appearing foolish in front of the classroom. Accordingly, many researchers (Cohen, 1998; O'Malley & Chamot, 1990; Oxford, 1990) mentioned the benefits of strategy use such as increased motivation, improved language

performance, greater autonomy and self-confidence, and will to continue learning after the language class is over.

It was also found out that the results of the current study are consistent with most of the researchers' ideas as detailed in the previous chapter about the benefits of using memory strategies in vocabulary development in foreign language teaching.

The results of this study are expected to make the language teachers and instructors find a new perspective in vocabulary teaching and offer suggestions to improve pedagogical implications.

Pedagogical Implications

The results of the study suggest that successful vocabulary learning depends on the ways they are practiced. It has been proved that listing technique is not effective to learn, discover the meaning of a vocabulary and remember it in the long term. However, memory strategies help learners to integrate with the language and learn the vocabulary, which helps to recall them easily in the following phases of language teaching.

In order to help foreign language learners to practice their vocabulary knowledge in the best way, the use of memory strategies needs to be emphasized. Students should be trained about the ways of applying the strategies into their own learning process. As mentioned in the previous chapter, memory strategies include many types of techniques such as grouping, categorizing, using pictures, keywords, maps etc. The students should be aware of all of those techniques so that they can be successful in developing vocabulary knowledge.

During the implementation of memory strategies, the teacher's role should only be a guide for students. Because the students need to take the responsibility to discover the best technique of the strategies, the teacher needs to answer their questions about the strategies by directing them to learn the vocabularies. Therefore, the students will be able to develop autonomy.

Most of learners complain about knowing every detail of grammar, but not understanding what is written or spoken due to lack of vocabulary knowledge. They feel anxious about communicating in the target language. However, the memory strategies both maintain successful learning and assure autonomy. This will lead the students to be more motivated to learn the language by lowering the anxiety and feeling more self-confidence.

What this study points out is that although students think that they know the meanings of vocabulary, they are not able to use them appropriately in context. This is because they are not proficient enough to integrate the vocabulary knowledge into language use for production. However, the memory strategies enable students to study on the vocabularies in such a way that they can not only deal with the unknown words and discover their meaning but also use them meaningfully in a context and have little chance to forget them. Therefore, the students need to be trained about the memory strategies and encouraged to apply them. The study clearly shows that vocabulary notebooks kept by students and including memory based strategies are helpful for them to learn the vocabularies and remember them in the long term.

In sum, the relationship between memory strategies for vocabulary learning and students' success in the task of vocabulary learning clearly emerged. The results indicated the relationship between employing memory strategies and successful vocabulary learning. Furthermore, basing on the success gained from memory strategies assured autonomy for students to take the responsibility of their own learning process. They can focus on the unknown vocabulary, adopt the strategies, discover the meaning, use it in appropriate context to practice and recall it whenever they need. Another point is that with the help of strategy training, the more students learn the vocabularies on their own, the better attitudes they have and the more motivated they are towards the language. On the contrary, the students who are lack of vocabulary knowledge feel anxious towards learning the foreign language. When they try to learn the necessary vocabularies in a traditional way, listing method, they only

memorize it for a short term and forget easily. This leads them to distract from the language learning process. Therefore, students need to be trained and encouraged to learn memory strategies and apply them for their vocabulary learning and practicing process.

Suggestions for Further Study

This study is not, however, without limitations. First, the ability to generalize the data is limited; the number of participant could be increased. Also, further research is needed to collect the data by interviews, think aloud processes and diaries. Such studies should ideally draw upon the effectiveness of memory strategies on vocabulary learning process. What's more, this study is limited with intermediate level students. Whether the memory strategies work well or not can be reassured by applying them in different levels.

Second, further research is needed to extend our knowledge on individual differences. The factors which influence individual differences can be personality types, motivational factors, culture, age, and gender and other variables, cluster analysis of individual differences; also help teachers to be more effective in task of vocabulary teaching with memory strategies.

Conclusion

This study points out that memory strategies is a fundamental part of teaching vocabulary. In order to maintain high-level vocabulary achievement, students need to be trained information about what the memory strategies are and how to apply them in their language learning process. The advantages of using memory strategies are not limited with achievement; they also provide high motivated autonomous learners. One of the most problematic areas in language learning, vocabulary knowledge, creates anxiety for students because they cannot understand even a word from what is spoken or written when they do not know necessary vocabularies. However, when they are able to cope with the unknown vocabularies in a context, they feel eager to read or listen, and receive information; thus feeling motivation towards learning foreign language. Another point is that when students are

aware of the ways learning new vocabularies and practicing them, they get their own responsibility to language learning process and do not feel bounded to the teacher. The teacher, who is only a guide in the process, has the role of explaining the memory strategies and fostering the learners to apply them in order to cope with the unknown vocabularies. Therefore, the students who know what the memory strategies are decide on which technique to use in accordance with the vocabulary and their learning styles.

To conclude, the memory strategies are required to teach students how to learn a vocabulary and practice it in order to maintain both motivated and successful autonomous students.

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APPENDICES

APPENDIX – A: Letter of Permission



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To whom it may concern,

I am writing to confirm that Soner Sozler, MA student from Turkey planning to conduct his thesis research with the name of “*What is the effect of memory strategy training on vocabulary development?*” in our school (HS / MHS Herzogenburg, Austria) is eligible to perform the tests and teaching practice on vocabulary training in two classes.

We feel happy to be part of such a project.

Mag. D. Färber

Mag. Doris Färber



Helmut Hirschmüller

OSR Dir. Helmut Hirschmüller

Course instructor
(name and signature)

headmaster
(name and signature)

01.11.2010

APPENDIX-B: Word List

1 put on sth or put sth on

to put a piece of clothing onto your body

Put your coat on if you're going outside, it's cold.

She put on her glasses and stared intently at the photograph.

to put make-up or cream onto your skin

Is there a mirror somewhere? I need to put my make-up on.

to make a device [e.g. light, fire] work by pressing a switch

Put the light on, would you?

What time do you want me to put the oven on?

to pretend to have a particular feeling, or to behave in a way which is not real or natural for you

I don't think he's really upset - he's just putting it on.

Anthea often puts on a funny voice when she answers the phone.

to organize a play, show, or competition

They were putting on a concert to raise money for the new church roof.

to begin to cook food

Can you put the potatoes on while I make a salad?

to put something that sounds or pictures are recorded onto [e.g. CD, video] into a machine which makes you able to hear or see the recording

Why don't you put your new CD on?

I'll put on a video for the kids to watch.

if a person or animal puts on weight, they become heavier

Have you seen Trevor recently, I think he's really putting weight on.

She put on over ten pounds in just 2 months.

to provide something for people to use

They've put on a late-night bus service for students.

They're putting on a new computing course at the regional college.

2 chop noun (MEAT) /tʃɒp/ ^(US) /tʃɑ:p/ [C]

a small piece of meat with a bone still in it

a lamb/pork chop

chop verb

/tʃɒp/ ^(US) /tʃɑ:p/ [T] (-pp-)

•

to cut something into pieces with an axe, knife or other sharp instrument

He was chopping wood in the yard.

Add some fresh parsley, finely chopped.

Chop (up) the onions and carrots roughly.

INFORMAL *Laura had her hair chopped (= cut) yesterday.*

3 allergic adjective

/əˈlɜː.dʒɪk/ ^{US} /-lɜː-/

- [after verb] having an allergy
*I'm allergic **to** cats.*

- [before noun] caused by an allergy
*an allergic **reaction***

- HUMOROUS having a strong dislike of something
*My dad's allergic **to** pop music.*

4 skin noun

/skɪn/

- [C or U] the natural outer layer which covers a person, animal, fruit, etc.
dark/fair/pale/tanned skin
skin cancer
Babies have soft skins.
Native Americans used to trade skins (= the skins of animals that have been removed from the body, with or without the hair).
a banana/potato skin

- [C or U] any outer covering
The bullet pierced the skin of the aircraft.

skin verb

/skɪn/ [T] (-nn-)

to remove the skin of something
The hunters skinned the deer they had killed.
I skinned my knee (= hurt my knee by rubbing skin off it) when I fell down the steps.

5 pork noun

/pɔːk/ ^{US} /pɔːrk/ [U]

meat from a pig, eaten as food
a pork chop
pork sausages

6 lamb noun

/læm/ [C or U]

a young sheep, or the flesh of a young sheep eaten as meat
lambs gambolling about in the fields
lamb chops roast lamb

7 celery noun

/ˈsel.ər.i/ ^{US} /-ə-/ [U]

a vegetable with long thin whitish or pale green stems which can be eaten raw or cooked
a stick of celery

8 nut *noun* (FOOD)

/nʌt/

[C] the dry fruit of particular trees which grows in a hard shell and can often be eaten
a Brazil/cashew nut

Sprinkle some roasted chopped nuts on top.

[C] INFORMAL someone who is extremely enthusiastic about a particular activity or thing
Ian's a tennis nut - he plays every day.

9 pear *noun*/peər/  /per/ [C or U]

a sweet fruit with a lot of juice and a green skin which has a round base and is slightly pointed towards the stem

10 turkey *noun* (BIRD)/'tʒɜː.ki/  /'tʒɜː-/

•

[C] a large bird grown for its meat on farms
a wild turkey

11 watch out!

something you say to tell someone to be careful so that they can avoid danger or an accident

Watch out - there's a car coming!

12 hold on& hang about

to wait for a short time

Hold on - I'll be ready in a minute! [often an order]

We held on another five minutes but in the end we had to leave without her.

to hold something or someone firmly using your hands or arms

I held on tight as the bike went over a bumpy bit of ground.

Hold on to that rail, Polly. [often + to]

to continue doing something even though it is difficult

The two teams were evenly matched, but Leeds held on and won the match 2-1.

13 fix up sth or fix sth up

to repair or arrange something [e.g. room, house] in order to improve it or to make it suitable for a particular purpose

Ella had fixed up one of the bedrooms for me to use as an office.

They spent thousands of dollars fixing up an old house in the countryside.

to arrange something [esp. meeting]

I'd like to fix up a meeting with you for some time next week if that's possible.

(American & Australian, informal) to solve a problem, or to end an

argument or disagreement

Did you manage to fix up the problem with your lease?

They fixed up their dispute with the builder and work on the house is underway again.

14 long verb

/lɒŋ/  /lɑːŋ/ FORMAL

long for sth; long to do sth

to want something very much

She longed to see him again.

I'm longing for news of him.

15 sort out sth or sort sth out

to successfully deal with a problem or difficult situation

Initially we had some problems with our computer system but they've been sorted out now.

She spent several days sorting out disagreements among the staff.

16 get out of sth phrasal verb (AVOID)

to climb out of

to avoid doing something that you do not want to do, especially by giving an excuse

I reckon her backache was just a way of getting out of the housework.

[+ -ing verb] *If I can get out of going to the meeting tonight I will.*

17 hurry up

to do something more quickly

Hurry up, Martin - we're already late! [often an order]

Can you hurry up with that report? I need it by lunchtime. [sometimes +with]

18 check in, check into sth

to arrive at a hotel and say who you are so that you can be given a key for your room

After I had checked in, I had a shower and then unpacked my suitcase.

He checked into a cheap hotel near the station.

check in

to show your ticket at an airport so that you can be told where you are sitting and so that your bags can be put on the aircraft

When I flew to New York, I was told to check in two hours before my flight.

check-in

noun

the time at which you have to check in

Check-in is at 9 a.m. and the flight departs at 10.30 a.m.

check-in

noun

the place in an airport where you check in

When we got to the check-in, there were already long queues of people.

The woman at the check-in desk asked if I wanted a smoking or a non-smoking seat. [used as adj]

19 put up with sb/sth

to accept unpleasant behaviour or an unpleasant situation without getting angry, even though you do not like it

*He's not easy to live with - I think Jo puts up with a lot.
I can put up with a house being untidy but I don't like it to be dirty.
He's impossible! How do you put up with him?*

20 mega *adjective* /'me.gə/ SLANG
very good or very big
She's got a mega voice. Megacity(Amsterdam)

21 develop /dɪ'veləp/

verb

1 CHANGE [I,T] to grow or change and become more advanced, or to make someone or something do this

The baby develops inside the mother for nine months.

She's taking a course to develop her computer skills.

*He's **developing into** a very good tennis player. Developing country.*

22 shanty town /'ʃænti.taʊn/

noun [C]

an area on the edge of a town where poor people live in very simply built houses

23 authority (authorities) /ɔ:'θɒrəti/

2 OFFICIAL GROUP [C] an official group or government department with power to control particular public services

the local housing authority

24 Motor vehicle /'məʊtə' / /'vi:ɪkl/

noun

1 [C] FORMAL something such as a car or bus that takes people from one place to another, especially using roads

25 pollution /pə'lu:ʃən/

noun [U]

damage caused to water, air, etc by harmful substances or waste

The book shows simple things you can do to reduce pollution from your car.

26 traffic /'træfɪk/

noun [U]

1 CARS ETC the cars, trucks, etc using a road

***Traffic** is **heavy** (= there are a lot of cars, etc) in both directions.*

a traffic accident

Sorry we're late - we got stuck in traffic.

27 improve /ɪm'pru:v/

verb [I,T]

to get better or to make something better

Scott's behaviour has improved a lot lately.

Every year thousands of students come to London to improve their English.

improved earnings/productivity

28 pedestrian¹ /pɪ'destriən/

noun [C]

a person who is walking and not travelling in a vehicle

Many streets are reserved for cyclists and pedestrians.

a pedestrian precinct/crossing

29 bike lane /baɪk//leɪn/

noun [C]

1 PART part of a road or track that is separated from the other parts, usually by a painted line

the inside/middle/outside lane

the fast/slow lane

They're widening the road from two to three lanes.

30 twist (CHANGE)

[\[Show phonetics\]](#)

verb [T]

to change the meaning of (facts or a statement); **distort**

You're twisting my words -- that's not what I meant at all.

During the trial, lawyers twisted the truth to gain the jury's sympathy.

twist

[\[Show phonetics\]](#)

noun [C]

an unexpected change

The incident was the latest twist in the story of the robbery.

Walnuts give a new twist to regular banana bread.

31 relax [Show phonetics](#)

verb

1 PERSON [I,T] to become happy and comfortable because nothing is worrying you, or to make someone do this

I find it difficult to relax.

The wine had relaxed him and he began to talk.

2 LESS STIFF [I,T] If a part of your body relaxes, it becomes less stiff, and if you relax it, you make it become less stiff.

Try these exercises to relax your neck muscles.

3 RULES [T] to make laws or rules less severe

The government has recently relaxed laws on bringing animals into

32 stuff *noun* (SUBSTANCE) (Things)

/stʌf/

[U] INFORMAL used to refer to a substance or a group of things or ideas, etc., often with a description of their general type or quality or saying who they belong to, without saying exactly what they are

There's sticky stuff all over the chair.

We'll have to carry all our camping stuff.

Do you want help bringing your stuff (= possessions) in from the van?

All that stuff she has been saying about Lee is rubbish.

33 cemetery

noun [C]

a place where dead people are buried

34 weird

adjective

very strange

I had a really weird dream last night.

35 nasty /'nɑːsti/

adjective

1 BAD very bad

a nasty shock/surprise

a nasty smell/taste

a nasty cut/burn

2 UNKIND unkind

*She's always being **nasty to** her little brother.*

3 ANGRY very angry or violent

When I asked for the money, he turned really nasty.

36 dye¹ /daɪ/

noun [C,U]

a substance that is used to change the colour of something

dye² /daɪ/

verb [T] **dyeing**, past **dyed**

to change the colour of something by using a dye

He dyed his hair pink last week.

37 diary /ˈdaɪəri/

noun [C]

THOUGHTS a book in which you write each day about your personal thoughts and experiences

She kept a diary of her trip to Egypt.

38 suspect¹ /ˈsʌspekt/ [Hide phonetics](#)

noun [C]

1 someone who may have committed a crime

He's the prime suspect (= the most likely suspect) in the murder case.

2 the usual suspects

the people you would expect to be present somewhere or doing a particular thing

"Who was at the party?" "Oh, Adrian, John, Dave - the usual suspects."

suspect² /sə'spekt/ [Hide phonetics](#)

verb [T]

1 **CRIME** to think that someone may have committed a crime or done something bad

He was suspected of drug dealing.

suspected terrorists

2 **THINK LIKELY** to think that something is probably true, or is likely to happen

[+ (that)] They suspected that he was lying.

3 **NOT TRUST** to not trust someone or something

She suspected his motives for offering to help.

39 To drop someone a line (V)

To write a letter to a person

40 au pair noun

/,əʊ'peər / ^{US} /,oʊ'peər/ [C]

a foreign person, usually a young woman, who lives with a family in order to learn their language and who looks after the children or cleans the house in return for meals, a room and a small payment

41 trash¹ /træʃ/

[U]

•

MAINLY UK (US **garbage**, ALSO **rubbish**) waste material or things that are no longer wanted or needed

I forgot to put the rubbish out for collection this morning.

Put the empty box in the rubbish bin.

Take the old furniture to the rubbish dump.

42 chat² /tʃæt/

noun [C,U]

a friendly, informal conversation

43 knickers /ˈnɪkəz/

UK (US **panties**) noun [plural]

women's underwear that covers the bottom

44 magazine noun (BOOK)

/,mæɡ.ə'ziːn/ [C]

(**INFORMAL mag**) a type of thin book with large pages and a paper cover which contains articles and photographs and is published every week or month

45 blurred /blɜːd/

adjective

1 NOT CLEAR (ALSO **blurry** /'blɜːri/

) not clear

a blurred photograph

blurred memories

2 POOR SIGHT If your sight is blurred, you cannot see clearly.

blurred vision

46 embarrassing /ɪm'bærəsɪŋ/

adjective

making you feel embarrassed and ashamed

an embarrassing defeat

What has been your most embarrassing moment?

47 dare¹ /deəˈr/

verb

1 dare (to) do sth to be brave enough to do something

I didn't dare tell Dad that I'd scratched his car.

2 dare sb to do sth to try to make someone do something dangerous

She dared her friend to climb onto the roof.

48 buddy /'bʌdi/

noun [C] INFORMAL

a friend

my best buddy

49 whistle¹ /'wɪsl/

verb

1 MOUTH [I,T] to make a sound by breathing air out through a small hole made with your lips or through a whistle

Someone whistled at her as she walked past.

50 let sb down phrasal verb

to disappoint someone by failing to do what you agreed to do *I promised to go to the party with Jane and I can't let her down.*

APPENDIX-C: Achievement Test

Fill the gaps in the mini-dialogues with the expressions from the box.

hurry up hang about get out fix up put up with sort out hold on watch out

- 1 A: Hey! _____! You're standing on my toes.
 B: I'm terribly sorry.
- 2 A: I need a ticket for tonight's football game.
 B: No problem, sir, I can _____ that _____ for you.
- 3 A: _____. I haven't got all day.
 B: Sorry, madam, but we have to wait for the manager.
- 4 A: This is the fourth time this week that you are late. I won't _____ it.
 B: I'm really sorry. I won't be late again.
- 5 A: _____ this car right away.
 B: Why? What's the problem, officer?
- 6 A: Waiter! Waiter!
 B: _____ a minute, madam, I'll be with you in just a moment.
- 7 A: Oh, dear, I can't fill in all these papers.
 B: If you wait a minute, I'll help you and _____ everything _____ for you.
- 8 A: Stop _____ in front of my house. Go home right now.
 B: But I love you, Fiona.

Put the words into the correct column.

allergic	develop	improve	pedestrian	
authority	nut	pollution	pork	shanty
town	bike lane	lamb	chop	
traffic	celery	mega	skin	turkey
check in	motor vehicle	pear		
Food			City	

Write the categories (adjective, verb or noun) of each word on the blank given.

- | | |
|--------------------|-------|
| 1. Twist | _____ |
| 2. Relax | _____ |
| 3. Stuff | _____ |
| 4. Cemetery | _____ |
| 5. Weird | _____ |
| 6. Nasty | _____ |
| 7. Dye | _____ |
| 8. Diary | _____ |
| 9. Suspect | _____ |
| 10. Drop sb a line | _____ |

Read the sentences below and choose the best word from among the choices to fill the gap

embarrassing	drop sb a line	twist	let sb down	whistle
dare	rubbish-bin	dye	blurred	traffic
au-pair	chat	buddy	knickers	magazine

- What has been your most _____ moment?
- I promised to go to the party with Jane and I can't _____ her _____.
- Someone _____ at her as she walked past.
- She _____ her friend to climb onto the roof.
- Put the empty box in the _____.
- Have you ever been to England as an _____?
- I am going out for _____ with friends.
- Heyy! My photo is on a _____.
- I took lots of photographs in Budapest but most of them are _____.
- Who is your best _____ in your life?

APPENDIX –D: Questionnaire

Dear student,

Please mark (**X**) the column “I exactly know the word”, “I don’t know the word at all”, “I am not sure” which best indicates your knowledge of each word.

İzzet Baysal University Faculty of Education

ELT Department

Researcher Soner SÖZLER

A: I exactly know the word

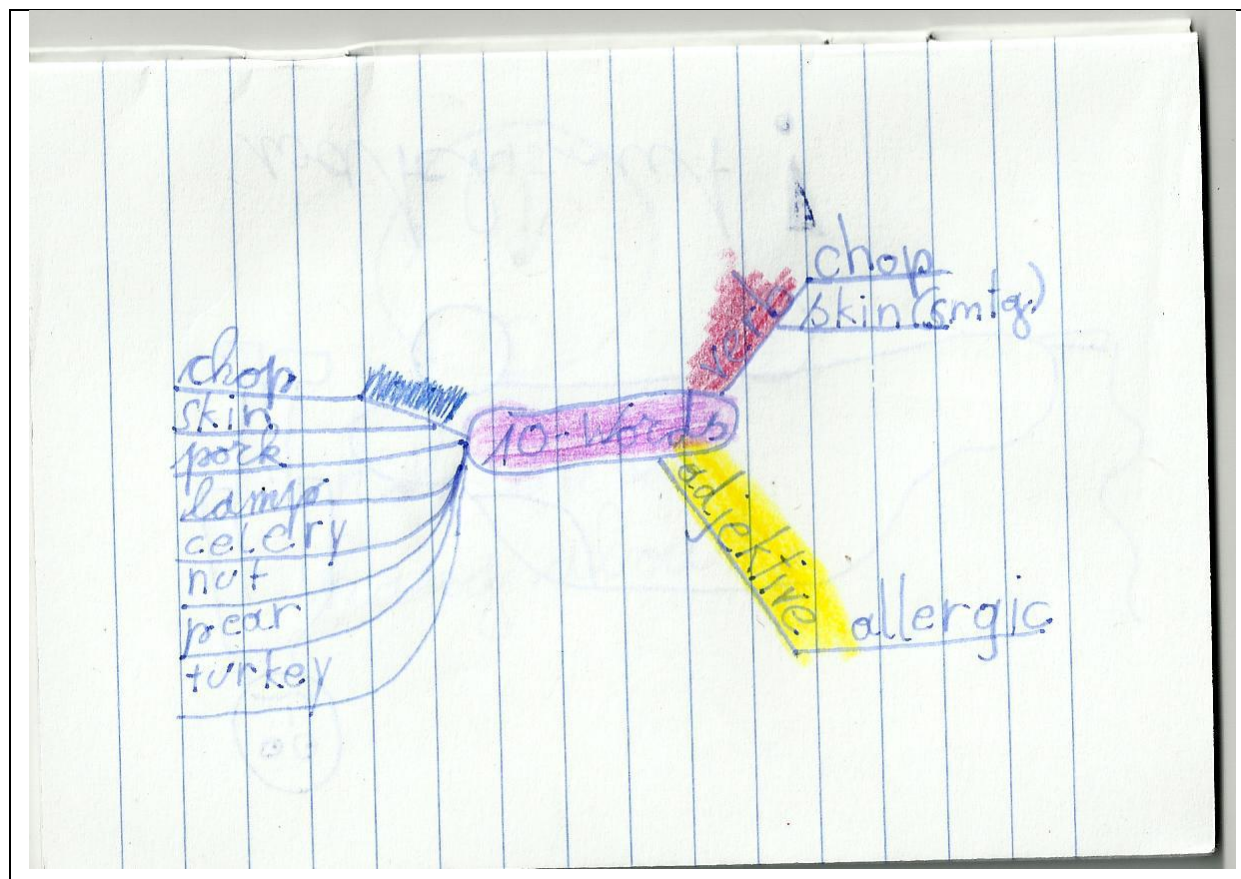
B: I don’t know the word at all

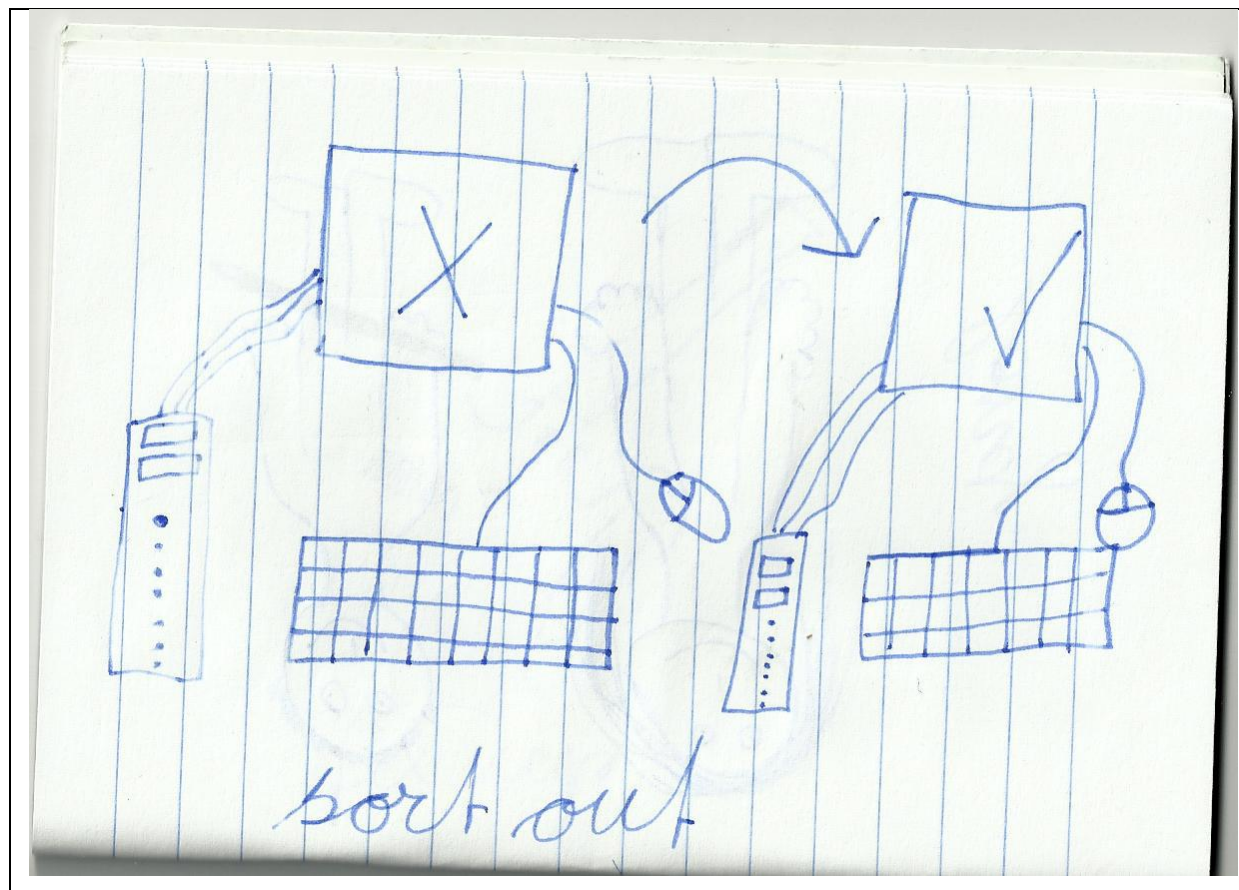
C: I am not sure

	A	B	C
1. Put on sth			
2. Chop			
3. Allergic			
4. Skin			
5. Pork			
6. Lamb			
7. Celery			
8. Nut			
9. Pear			
10. turkey			
11. Watch out			
12. Hold on&hang about			
13. Fix up sth			
14. Long for			
15. Sort out sth			
16. Get out of sth			
17. Hurry up			
18. Check in			
19. Put up with sb/sth			
20. Mega			
21. Develop			
22. Shanty town			
23. Authority			
24. Motor vehicle			
25. Pollution			
26. Traffic			
27. improve			
28. Pedestrian			
29. Bike lane			
30. Twist			
31. Relax			
32. Stuff			
33. Cemetery			
34. Weird			
35. Nasty			
36. Dye			

37. Diary			
38. Suspect			
39. Drop someone a line			
40. Au pair			
41. Trash			
42. Chat			
43. Knickers			
44. Magazine/mag			
45. Blurred			
46. Embarrassing			
47. Dare			
48. Buddy			
49. whistle			
50. Let sb down			

APPENDIX – E: Notebooks of the Experimental Group





One day Frank drove with his motor vehicle to a shanty town. It was bad. There were much air pollution. Then he asked mega bureau, suddenly he got a new car and drove on a new lane because he was too big. He drove bad and he had a lot of crashes with pedestrians. So he thought he had to improve his biking. Then the police came and told him he must be

careful. The authority police man Mr. Tom told him he was developing into a good biker.

18. check in, check into sth

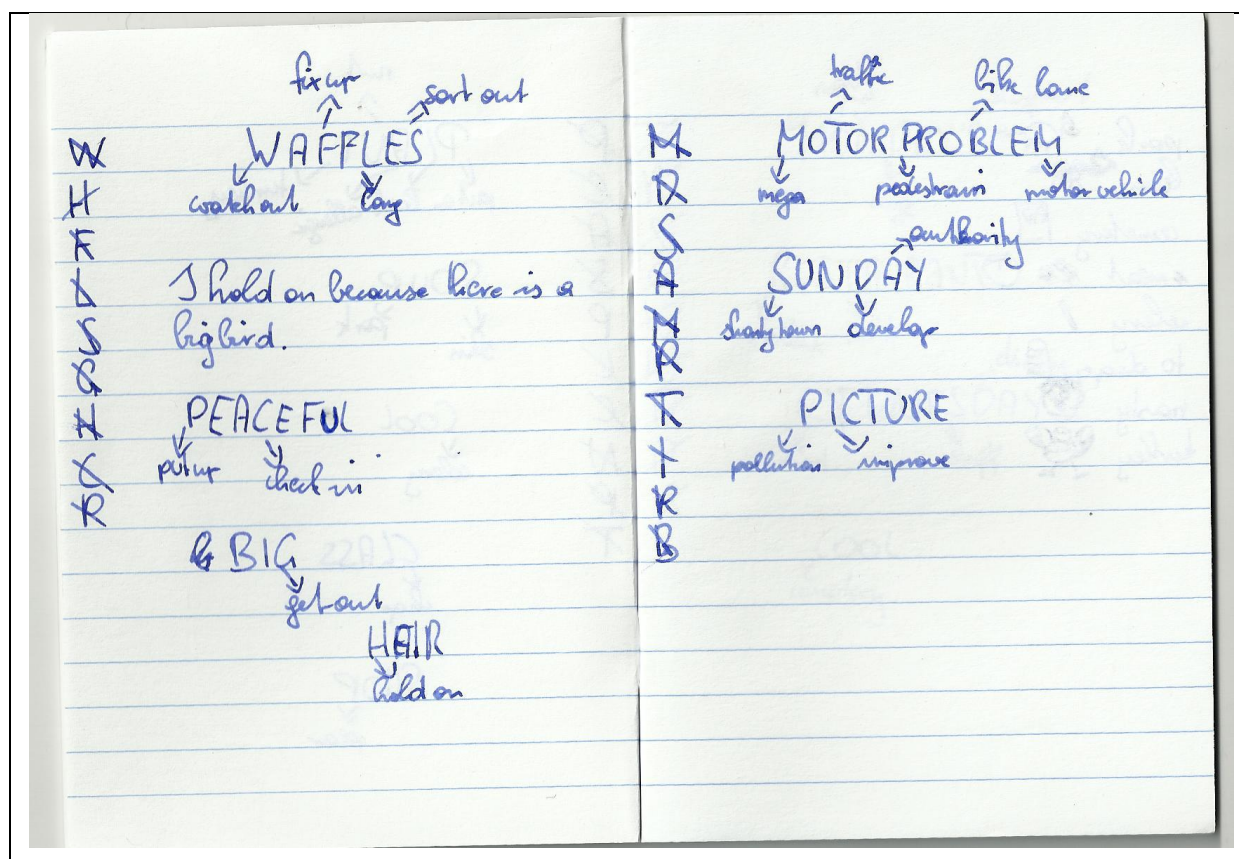


← check in →



[9.00] is CHECK in

19. put up with sb/sth



APPENDIX – F: Word Lists of the Control Group

Word list

put on something = etwas anziehen

chop = Kotelett

allergic = allergisch

skin = Haut

skin (verb) = abhäuten

pork = Schweinefleisch

lamb = Lamm

celery = Sellerie

nut = Nuss

pear = Birne

turkey = Truthahn

watch out = aufpassen

hold on & hang about = aufhalten & herumlungern

fix up something = etwas befestigen

long = sich sehnen

Zeddrbauer

Word-List

1. put on sth or put sth on = etwas anziehen
2. chop = Kollett
3. allergic = Allergie
4. skin = Haut
5. pork = Schweinefleisch
6. lamb = Lammfleisch
7. celery = Sellerie
8. nut = Nuss
9. pear = Birne
10. turkey = Truthahn
11. watch out! = Weich aus!
12. hold on, hang about = warten
13. fix up sth = Festmachen!
14. long = wollen
15. sort out sth =
16. get out of sth = von etwas wegkommen
17. hurry up = beeil dich
18. check in = Einchecken
19. put on with sth, sb =
20. mega = Mega
21. develop = entwickeln
22. shanty town = Elendsviertel
23. authority = Behörde
24. traffic = Verkehr

Julia
deuBauer

1. put on sth or put sth on ^{etwas} : anziehen
2. crop : Kotelet
3. allergic : allergisch
4. skin : Haut
5. pork : Schweinefleisch
6. lamb : Lamm
7. celery : Sellerie
8. nut : Nuss
9. pear : Birne
10. turkey : Truthahn
11. watch out : aufpassen
12. hold on & hang about : festhalten
13. fix up sth or fix sth up : etwas in Ordnung bringen
14. hang : hang
15. sort out sth or sth out : etwas aussortieren
16. get out sth :
17. hurry up : sich beeilen
18. check in , check into sth : einchecken
19. put up with sb/sth : aufpassen mit jemanden / etwas
20. mega :
21. develop : entwickeln
22. ranty own :
23. authority : Autorität
24. motor vehicle :
25. pollution : Verschmutzung
26. traffic : Verkehr
27. improve : verbessern
28. pedestrian : Fußgänger (in)

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