

ADDIS ABABA UNIVERSITY
COLLEGE OF HUMANITIES, LANGUAGE STUDIES, JOURNALISM AND
COMMUNICATION
DEPARTMENT OF FOREIGN LANGUAGES AND LITERATURE

THE EFFECT OF VOCABULARY LEARNING STRATEGY TRAINING ON
READING COMPREHENSION, VOCABULARY KNOWLEDGE AND
VOCABULARY STRATEGY USE: THE CASE OF ADDIS ABABA
UNIVERSITY

BY
ABEBAW DESSALEW

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN
ENGLISH LANGUAGE TEACHING (ELT)

JULY, 2024
ADDIS ABABA, ETHIOPIA

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This is to certify that the dissertation prepared by Abebaw Dessalew, entitled '*The Effect of Vocabulary Learning Strategy Training on Reading Comprehension, Vocabulary Knowledge and Vocabulary Strategy Use: the Case of Addis Ababa University*', is submitted in fulfillment of the requirements for the Degree of Doctor of Philosophy in English Language Teaching complies with the regulations of the university and meets the accepted standards with respect to originality and quality.

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DECLARATION

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ABSTRACT

It is impossible to teach students all the words which are essential for their study. Hence, it is vital to inspect whether vocabulary strategy training helps them to study vocabulary or not. The purpose of this study was to examine the effect of vocabulary learning strategy training on university students' reading comprehension, vocabulary breadth knowledge, vocabulary depth knowledge and vocabulary learning strategies use. Quasi-experimental research design was employed. The study focused on the treatment group looking at their performance before and after intervention. To see the effect of the training in relation to the instruction given in communicative English, a group was included in the study as additional source of information to assess the effectiveness of vocabulary strategy training. The vocabulary learning strategy training was offered to treatment group students for 16 hours. Independent Sample T-test was computed on SPSS to examine if there was a statistically significant difference between the treatment and conventional groups. Paired Sample T-test was also run on the SPSS to see if there was statistically significance difference between the pre and post mean scores of the students in the treatment and conventional group. Moreover, Levene's test, Kolmogrov-Smirnov test and Wilcoxon Signed Ranks test were computed to assess equivalency and normality of the data.

The t-test analysis showed the treatment group students scored better in the post test. The students who followed the normal instruction performed less than the treatment group. A comparison of the students who followed the conventional instruction showed in the post-test in vocabulary breadth knowledge test (p-value, .001; moderate effect size, Cohen's d: .76). In addition, the students assigned to the treatment group scored higher than the conventional group in the post test in vocabulary depth knowledge test (p-value, .00; moderate effect size, Cohen's d: 0.93). The study found that the experimental group participants improved their vocabulary usage significantly better than the group that followed the conventional instruction in the five among six major categories of vocabulary learning strategies (less than the p-value of 0.05). The treatment group students enhanced their vocabulary knowledge and strategy use because they benefited from the vocabulary strategy training they received for 16 hours. The training helped

them in developing their knowledge in several vocabulary learning strategies and motivation. Consequently, they effectively studied the use, form and meaning of several words. However, it was found no significant difference in reading comprehension skills between learners assigned to the treatment group and group that followed the conventional instruction ($t = 1.14$, $df = 38$ for the conventional group and 36.96 for the experimental group, $p > 0.05$). This could be attributed to lack of training in reading strategies in the conventional instruction. Based on the findings of the study, it is recommended that English language course book writers, instructors should consider the study of varied vocabulary learning strategies.

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ACRONYMS AND ABBREVIATIONS

| | |
|--------|---|
| EFL: | English as a Foreign Language |
| ESL: | English as a Second Language |
| ELT: | English Language Teaching |
| ESOL: | English for Speakers of Other Languages |
| IELTS: | International English Language Testing System |
| TOEFL: | Test of English as a Foreign Language |
| iBT: | Internet Based Test |
| VLT: | Vocabulary Levels Test |
| WAT: | Word Associates Test |
| SBI: | Strategy Based Instruction |
| SSBI: | Styles and Strategies-Based Instruction |
| LLSs: | Language Learning Strategies |
| VLSs: | Vocabulary Learning Strategies |
| VLSQ: | Vocabulary Learning Strategies Questionnaire |

OPERATIONAL DEFINITIONS

Vocabulary breadth knowledge: the amount of words that students know from the most frequent 2 thousand, 3 thousand and 5 thousand word lists as measured by Vocabulary Levels Test produced by Schmitt et al. (2001).

Vocabulary depth knowledge: the amount of words that students know as measured by Read's (1998) - Version 4 Word Associates Test. It focuses on the concept of word association, designed to measure two aspects of depth of vocabulary knowledge: (1) word meaning, particularly polysemy and synonym, and (2) word collocation.

Reading comprehension: students' reading comprehension skills as measured by *TOEFL iBT*[®] Free Practice Test Transcript (2019). The test comprises of scanning, skimming, contextual guessing, identifying pronoun reference, recognizing an author's purpose and identifying relation between different parts of the text.

Vocabulary learning strategy: 55 vocabulary learning strategies incorporated in the questionnaire of Schmitt (1997) were classified into 6 types (determination, social for discovery, social for consolidation, memory, cognitive and meta-cognitive). The total strategies in the questionnaire were 58; 3 of them were cut out in this research project.

Vocabulary learning strategy use: employing Schmitt (1997) Vocabulary Learning Strategy Questionnaire (VLSQ), the participants rated their frequency of vocabulary learning strategy use, using a 5-point Likert scale (1. Never or almost never 2. Seldom 3. About half the time 4. Usually 5. Always or almost always).

Conventional Group: refers to the group of students who did not receive vocabulary strategy training in this study. They studied only very limited implicit vocabulary strategies integrated with other major language skills in their Communicative English Skills I course. There are only 8 implicit and 1 explicit vocabulary strategies in the course.

CHAPTER ONE: INTRODUCTION

1.1. Background of the Study

English language has a great effect on many features of the globe such as trade, politics, science, education and entertainment. This is an outcome of British colonial history, the emergence of the United States as the key economic power, much travel and tourism in English, a great deal of academic discourse in the planet in English, the widespread of pop music and American movie in the earth (Harmer, 2001). In related expression, improved globalization, interrelation and general disclosure have advanced a significant enhancement in developing countries in practice and desire to study the English language. Among policymakers and researchers, English is taken as vital for economic development, employment and social advancement (Obiageri et al., 2018). Therefore, it seems studying English language has a paramount importance for Ethiopians since it is improbable to escape from globalization.

The new Ethiopian Education Development Roadmap (2018-30) states that English language is given as a subject from grade 1 and as a medium of instruction from grade 7 throughout the country (Tirussew Teferra et al., 2018). However, there was a variation about the time students start English as a medium of instruction previously from region to region.

...in some regions local languages are used as MOI [medium of instruction] in grades 7 and 8 (e.g. in Oromiya, Somali, and Tigray regions), in others English is still used as MOI for non-language subjects (e.g. Gambella, SNNPR), and yet in others English is partially used as MOI to teach science and mathematics (e.g. Amhara Region). From grade 9 onwards, however, English is the sole official MOI, with the exception of teacher training colleges. (Berhanu, 2009, p.1091)

Even though Ethiopian students studied English for more than 12 years as a subject, it seemed that many of them did not perform at the expected level. Wendyfraw et al. (2016) studied regarding the English language proficiency level of first year students in Dilla University. They found that the majority of the students (81.5%) had low English

language proficiency level. Concerning their reading competence, the majority (81%) were found to be at frustration reading level. Since students with similar educational background were joining all Ethiopian universities, the data could be transferrable to other universities too. This underlines the problems related to English language teaching in schools and universities in Ethiopia should be studied well and the problems related to English language proficiency should be solved.

It is evident that vocabulary is crucial in language learning. Several researchers attempted to define the term 'vocabulary' as it should be viewed from the perspective that it encompasses beyond a single word. Schmitt (2000) prefers to employ the term 'lexeme' rather than 'word' because he considers that the term 'word' is very broad to incorporate the different structures vocabulary gets. He mentions also the ambiguity of considering the words of a phrasal verb or an idiom as different words and the confusion of counting the various grammatical forms of a solitary word as various words. Tacač (2008) also explains more on the matter that vocabulary is formed of different forms, for instance such as morphemes, idioms, fixed expressions (such as binomials and trinomials), catchphrases, prefabricated routines or prefabs, greetings and proverbs. The researcher of this dissertation also believed that the term vocabulary is beyond a single word because two or more words give a single meaning in the real world communication.

One of the objectives of this study is to examine the effect of vocabulary strategy training on reading comprehension. Reading is one of the four major skills of English Language. Reading comprehension skills are related mainly to understanding what the author wants to say. Of course, comprehension is beyond mere understanding of the author's message. Kose (2006) states that when discussing the term reading, we come across two sheets of reality: one that we can observe clearly and the other is that we cannot clearly see. Therefore, the rationale behind reading is to make the one which is not clearly visible, the underlying meaning, visible and clear. Block & Israel (2005) add an idea on the issue of reading skills as predicting, making connections, visualizing, inferring, questioning, and summarizing are strategies shown by research to develop reading comprehension.

Specifically Vocabulary learning strategies training, which was the main part of this research topic, was discussed as follows. It is originated from the general area 'learning strategies'. As an instructor who taught English language for the past 15 years, mostly in universities, this researcher was questioning about the reason behind the gap of English language academic performance of his students. English language teaching scholars also began to see the importance of individual disparity in language study (Brown, 2007). We observe some learners accomplish quicker and higher in their academic career while other learners accomplish lower because of what is generally known as learning strategies. Language aptitude and motivation comprise of common reasons that affect the speed and stage of second language attainment. But how does their effect work? One probability is that they influence the environment and the frequency with which individual learners use learning strategies (Ellis, 1997).

The term 'language learning strategy' was defined by many scholars but there was no common definition. Although Language learning strategies were given definition by various well known researchers in the field, absolute consensus was not reached concerning the definition and consequently the classification of strategies (Oxford, 1990). Oxford (1990) defines it as particular deeds done by the student to get learning easy to comprehend, quicker, more pleasant, autonomous, efficient, and can be applied to novel situations. Language learning strategies stand for the procedure and actions set out by language students to learn or employ a language more successfully (Rose, 2015). In general, many of the definitions stress the use of receptive and productive skills of language in autonomous way.

There are two general expressions in vocabulary learning: receptive vocabulary and productive vocabulary. In this research, receptive vocabulary knowledge was researched because students' vocabulary knowledge was evaluated by letting students read tests and answer them. Receptive vocabulary knowledge addresses the potential to recognize and comprehend a word when it appears in listening or reading, whereas productive vocabulary knowledge refers that we attempt to generate words, beyond understanding, in speaking or writing (Boone & Wilde, 2023). The productive vocabulary knowledge of the participants this study were not evaluated. The productive vocabulary knowledge is

associated with students' word knowledge when they are speaking and writing. Hence, in this research the participants' vocabulary knowledge was not assessed when they were speaking and writing. Productive vocabulary consists of understanding a lexical item [a word] adequately sufficient to produce it when it is required to transmit communicative idea in speech or writing (Schmitt 2019). Although it is stated in this study receptive vocabulary is chiefly considered, there are times that it is difficult to separate receptive knowledge and productive knowledge. An English language learner may recognize the meaning of a recently learned word in a reading passage (receptive) but might not be able to spell the word accurately, pronounce it intelligibly in speech, or use it correctly in an essay or in a conversation (productive).

The other thing that was worth of investigation in this study was the relationship between vocabulary learning strategies training and reading comprehension. It is obvious to hear while students are complaining about the difficulty of a text because they fail to understand the meaning of the vocabulary of the reading passage. Of course, one can easily notice that the more meanings of English words a language learner knows, the better he can comprehend an English literature. Reading strategy training that centers on the development of student's vocabulary has a positive effect on improving their capacity to deduce meanings and better understand what they read (Rupley et al., 1998).

Studies were conducted on the relationship between vocabulary and reading skills and show that reading different texts has a paramount importance to study vocabulary. The studies even indicate that the effect of reading on vocabulary learning is much greater than the effect of other language skills on vocabulary study. Schmitt (2000), for example, argue that although many words can be learned incidentally through verbal exposure, considering that spoken discourse is associated with more frequent words and lower type-token ratios than written discourse, it would be optimistic to expect to learn a wide vocabulary from only spoken discourse. Written discourse, on the other hand, tends to use a wide variety of vocabulary, making it a better resource for acquiring a broader range of words. This author has also mentioned the kind of texts, suitable to learn vocabulary, for the different levels of learners. Advanced students can take advantage of a wide variety of authentic texts, but for beginning students, graded readers probably give

the best access to this amount of input. These readers are typically graded into a number of levels (Schmitt, 2000).

There is a common debate in teaching vocabulary regarding whether incidental vocabulary teaching or explicit vocabulary teaching is more effective. There is an agreement in English language teaching field that explicit vocabulary teaching is more effective however it is time-consuming. Nevertheless, it is not feasible to teach students all the words they need using this approach (Llach & Alonso, 2020). Moreover, it is evident in vocabulary learning that we learn most of the words incidentally through listening and reading. Many researchers have argued that reading is the most important source of L1 vocabulary acquisition (Feng & Webb, 2020). Research has also indicated that listening to aural input can contribute to L2 incidental vocabulary learning (van Zeeland & Schmitt, 2013). Meanwhile, there are findings of various studies which state most of English as a Foreign language learners know and use limited vocabulary strategies. However, researchers emphasize the benefits of vocabulary strategy training in enhancing students' vocabulary knowledge and reading comprehension. Tacač (2008) explains the benefits of vocabulary strategy instruction for students' vocabulary strategy use improvement as: more or less all studies in question imply that learners possess some form of vocabulary learning strategies inventory, but they do not make a systematic use of it, and therefore are in need of instruction.

Several Ethiopian studies also reported that many students do know various vocabulary learning strategies and they do not frequently use the strategies they know. Many of the low achievers 'Never' and 'Rarely' used the majority of the strategies provided to discover the meanings of new English words and to consolidate the words they have learned (Getachew & Getachew, 2014). However, the experience of the instructor in teaching language skills shows that his students use various strategies though they cannot recognize the scholastic categories of the strategies.

1.2. Statement of the Problem

The emphasis given to vocabulary was fluctuating over the past years globally; it got both great and less attention. There was a period, vocabulary was offered good attention in

teaching methodologies and there was also a time the topic was neglected (Schmitt, 2000). However, Carter (1988) indicates the good improvement in the attention offered to vocabulary learning and teaching; he says that after many years of being neglected, methodologists and linguists have increasingly been turning their attention to vocabulary and stressing on its importance in language learning. Therefore, good attention should also be given to vocabulary teaching and learning in Ethiopia.

It seems usual to listen to several individuals worry about their incapability of understanding English conversations and manuscripts and they point out the complexity of the vocabulary. Regarding this point, studies (for example; Laufer, 1997) verify that students experience the vocabulary shortage as the key trouble specifically when they are studying reading and that the necessity to comprehend can explain their fascination towards lexis. Developing the lexical knowledge can direct to improved reading comprehension and fewer reading mistakes and spelling errors (Incognito et al., 2023). Therefore, the acquisition of lexis has become a question of interest to applied-linguists since then. The complexity of vocabulary acquisition is severe to ESL/EFL learners especially if their mother tongue has a structure which is very different from their target language. Concerning this issue, Nation (2001) explains that if a word employs sounds that are in the mother tongue, follows related spelling, is a loan word in the mother tongue with approximately similar meaning, conform approximately similar grammatical patterns as in the mother tongue to same collocations and limitations, then the complexity of the study will be easier. The word will not be easy to study; nevertheless, for students whose first language is not associated with the second language, the study load will be heavy.

Different scholars raise two important points on the subject of vocabulary knowledge: vocabulary breadth and depth. Concerning vocabulary breadth, it is defined as the amount of words a student recognizes in spite of the depth of his/her word knowledge (Daller et al., 2007). Regarding vocabulary depth, it is stated a more comprehensive definition. Depth of knowledge is an association of relations between words; it is about how they relate and interrelate with each other and may be limited in use according to register and context (Moghadam et al., 2012). That means, when we deal with a person knows a word

it embraces more than knowing a specific meaning of that word. Nation (2000) specifically lists the features of word knowledge as follows.

The first is Knowledge of Form: A. Spoken- the sound of the word and the pronunciation of the word B. Written- the spelling and written pattern of the word C. Word parts- the structure of the word in relation with prefix, root or suffix, the word parts which are important to express the meaning

The second is Knowledge of meaning: A. form and meaning-the meaning the word form indicates? The form of the word to communicate the meaning B. Concept and referents- the contents of the concept, the things that the concept indicate C. Associations- the related words that come to our mind, alternative words that can replace this word

The third is Knowledge of use: A. Grammatical functions- the form of the word appearance, the situation we put the word B. Collocations: What is a predictable combination of words? C. Constraints on use (register, frequency ...) -Where, when, and how often would we expect to meet this word? Where, when, and how often can we employ this word?

Wide reading was made to identify the research gap regarding vocabulary learning strategies. The first major focus of the researchers was identifying the learners' vocabulary strategy use (for example: Aladdin et al, 2015; Al-Fuhaid, 2004; Baldoumi, 2016; Easterbrook, 2013; Fan, 2015; Khair, 2017; Noormohamadi & Amirian, 2015; Siriwan, 2007). The second emphasis was given to the effect of learners' use of vocabulary learning strategies on their vocabulary development (for example: Alharthi, 2014; Banisaeid, 2013; King, 2011; Llamosas, 2011; Ostovar-Namaghi & Rajaei, 2013; Rahimi & Shams, 2012; Teng, 2015). The third attention was offered to the effect of vocabulary learning strategies training on students' vocabulary development (for example: Aktekin & Guven, 2013, Ebrahimi et al, 2015). The fourth was about the effect of vocabulary learning strategies training on students' vocabulary strategy use (for example: Lui & Pang, 2017; Rahimi & Allahyari, 2019).The fifth focal area of the studies about vocabulary was on the relationship between vocabulary learning strategies and reading comprehension (for example: Al-Nujaidi, 2003, Burkhour, 1999, Kafipour &

Naveh, 2011). Of course, there were also some articles which share some part of the topic of the researcher of this study, the effect of vocabulary learning strategies training on the reading comprehension of EFL students (for example, Naeimi & Foo, 2013; Naeimi & Foo, 2013B; Naeimi et al., 2013; Rezvani & Jabbari, 2016).

Although studies were conducted on vocabulary learning strategies, the number of studies done on the issue by Ethiopian researchers was very limited as far as the researcher of this study is concerned. One was a study conducted by Abebe (1997) on strategies of vocabulary learning used by freshman students at A.A.U. The finding indicates that many different English vocabulary learning strategies were known by the participants but a few of the strategies were explained to be used by them. The second local research by Alemu (1994) was conducted to investigate to what extent the teaching and learning of vocabulary by an awareness- raising approach would be considered feasible and acceptable. Alemu found that an awareness raising approach to vocabulary learning would be acceptable and feasible in high school situation. The third was researched by Jeylan (1999) on vocabulary learning strategies used by grade 11 students at Menelik II senior secondary school in A.A. He found out that the majority of students seemed rarely use most of the strategies investigated. The fourth was a study conducted by Mulugeta (2006) about vocabulary learning strategies. His finding shows that his participants used guessing strategy to infer the meanings of unfamiliar words. The fifth study was researched by Setegn (2007) that examines vocabulary learning strategies used by Somali speaking students. His results illustrates that there is no statistically significant gender difference between students in using vocabulary-learning strategies except for cognitive strategies.

There are also other few studies that were done recently in Ethiopia about vocabulary strategies. The main aim of Getnet's (2008) study was to look into vocabulary-learning strategies utilized by high and low performer learners. The focus was to investigate the comparison and contrast among high and low performer students in utilizing vocabulary-learning strategies. It shows that there was a relationship between vocabulary learning strategy use and language learning achievement. The more successful language learners (i.e. high achievers) use more vocabulary learning strategies than the less successful

learners (i.e. low achievers). The other was Ermias's (2010) study which shows that dictionary use is important for preparatory level students in some way to tackle unfamiliar words in the text. The last one was Demissew's study (2015) on the effect of vocabulary learning strategy training on students' vocabulary learning performance.

As it could be shown above, all the researchers' focus, except Demissew's study, was identifying learners' strategy use and learning strategies in general. Of course, his objectives are different from this researcher: to examine to what extent the learning strategy of using word-formation rules can help students to understand new words and to find out whether training in the selected vocabulary learning strategies (VLS) would have any effect on the learners' performance of vocabulary learning. Hence, he focused on a specific strategy, not the whole strategies as this researcher did. Therefore, the researcher of this study did not come across with any Ethiopian study which was studied about the effect of vocabulary learning strategies training on the language skills of students in general and reading skills in particular.

Concerning the effect of vocabulary strategy training on students' language skills, some studies report a reasonable degree of success, whereas others report only limited success, or even student resistance (Schmitt, 1997). But in his survey of classroom-based studies, McDonough (1995) concludes that improvements from training are weak, culturally dependent, and show up only in certain measures. Meanwhile, Stoffer (1995) states strategy training was the solitary excellent forecaster of the employment of vocabulary-learning strategies, while Hulstijn (1997) quotes several research projects illustrating benefits in the favorable outcome of one specific mnemonic strategy, the keyword technique, after strategy instruction. Nation (2001) summarizes similar findings for the strategy of guessing meaning from context. All these conflicting research results indicate that many more studies are needed regarding training on vocabulary learning strategies.

Currently in Ethiopia, there are two common English Language courses offered to all first year university students across the country: Communicative English Skills I and Communicative English Skills II. Of course, some departments also offer an additional English language course called Basic Writing skills. In Communicative English Skills I,

there are six sections namely listening, speaking, reading, writing, vocabulary and grammar. All these major language skills, vocabulary and grammar are presented in an integrative approach. Of course the module focuses on listening and reading skills and integrates these two skills with speaking and writing activities. Grammar and vocabulary learning activities are also included in the module.

Assessing the vocabulary activities, they are based on the reading passages and the listening texts. Regarding the vocabulary learning strategies, there are only 9 strategies which are addressed in the module. Among them, only one is mentioned explicitly by its name. All others are presented in task form. Students answer vocabulary questions based on the reading passages and listening texts.

The problem identified in the module concerning the vocabulary activities is that the tasks do not help the students comprehend variety vocabulary learning strategies. Thus, with limited knowledge of vocabulary learning strategies, it is difficult to develop the breadth and depth of vocabulary knowledge. Murphy (2008) states the need for language strategy instruction by mentioning the observation of individuals who studied on the issue. She said that less successful language students sometimes have no clue what strategies they employ or rely on a few non-communicative techniques such as translation, rote memorization and repetition. It was debated that, if application of strategies distinguished the successful learner, strategy training should become part of language learning programs.

It was because of the above rational that in this research, an attempt was made to offer vocabulary strategy training. The training helped the trainees to boost their motivation in applying variety of vocabulary learning strategies and they study lots of word meanings. Eventually, they could develop their vocabulary breadth and depth knowledge.

The explicit vocabulary strategy training takes the vocabulary strategy classification developed by Schmitt (1997) as a major reference. Schmitt's classification has 6 major categories namely determination, social for discovery, social for consolidation, memory, cognitive and metacognitive. Totally, students were acquainted with 55 vocabulary learning strategies. The training material was produced by the current research by consulting different books and websites. The module consists of general objectives,

objectives of the lesson, explanation of the strategy, examples, exercises, answer key to the instructor and appendices. Based on the vocabulary strategies they learned, students were asked to answer vocabulary development exercises suitable for the enhancement of vocabulary breadth and depth knowledge.

In the literature review, even though there are a few conflicting study results, it is researched that when students develop their vocabulary breadth and depth knowledge, they also develop their reading comprehension skills. However, in this study for the rational that could be associated with lack of additional reading strategy training; the treatment group who received vocabulary strategy training could not enhance reading skills.

Students who attended the conventional class did only Communicative English I vocabulary exercises. They were instructed in only 8 implicit and 1 explicit vocabulary learning strategies. Hence, students were not aware of varied vocabulary learning strategies and they were not motivated to study vocabulary. This in turn negatively affects their vocabulary breadth and depth knowledge. In like manner, students in the conventional course, who received neither vocabulary strategy training nor reading strategy training, could not improve their reading skills.

This research is believed that it would contribute to understanding vocabulary competencies and how such competencies could be learned by training students to use vocabulary learning strategies.

1.3. Objectives of the Study

1.3.1. General objective

The overall aim of this study was to examine the effect of vocabulary learning strategies training on the reading comprehension, vocabulary knowledge and vocabulary strategies use of university students.

1.3.2. Specific objectives

The specific purposes of this study were:

1. examine the effect of vocabulary learning strategy training on the reading comprehension of first year university students
2. examine the effect of vocabulary learning strategy training on the vocabulary breadth knowledge of first year university students
3. examine the effect of vocabulary learning strategy training on the vocabulary depth knowledge of first year university students
4. find out the effect of vocabulary learning strategy training on vocabulary learning strategies use of first year university students

1.4. Research Questions

This study sought to answer the following basic research questions:

1. How effective is the vocabulary strategy training in helping students develop their reading comprehension skills?
2. How effective is the vocabulary strategy training in helping students develop their vocabulary breadth knowledge?
3. How effective is the vocabulary strategy training in helping students develop their vocabulary depth knowledge?
4. How effective is the vocabulary strategy training in helping students develop their vocabulary learning strategy use?

Hypotheses

(a) Hypotheses for Students' Reading comprehension

Null Hypothesis (H₀): Vocabulary strategy training enhances reading comprehension of learners.

Alternative Hypothesis (H_a): Vocabulary strategy training does not have effect on reading comprehension of learners.

(b) Hypotheses for Students' Vocabulary breadth knowledge

Null Hypothesis (Ho): There is no statistically significant difference in vocabulary breadth knowledge between students who receive vocabulary learning strategy training and those who take the conventional method.

Alternative Hypothesis (Ha): There is statistically significant difference in vocabulary breadth knowledge between students who receive vocabulary learning strategy training and those who take the conventional method.

(c) Hypotheses for Students' Vocabulary depth knowledge

Null Hypothesis (Ho): There is no statistically significant difference in vocabulary depth knowledge between students who receive vocabulary learning strategy training and who take the conventional method.

Alternative Hypothesis (Ha): There is statistically significant difference in vocabulary depth knowledge between students who receive vocabulary learning strategy training and those who take the conventional method.

(d) Hypotheses for Students' Improvement in Vocabulary Learning Strategies Use

Null Hypothesis (Ho): Training in the learning strategies of vocabulary does not significantly improve students' use of vocabulary learning strategies;

Alternative Hypothesis (Ha): Training in the learning strategies of vocabulary significantly improves students' use of vocabulary learning strategies.

1.5. Significance of the Study

The first important contribution of this study would be the basic knowledge towards the effect of vocabulary learning strategies training on reading comprehension skills, vocabulary knowledge, and vocabulary strategy use of EFL students. As it is discussed in the literature review, there was an argument on whether a training of language strategy training improves students' language skills; therefore, this study could add few things on this scholastic debate. The second contribution could be curriculum designers could design, based on the results of this study, 'Vocabulary Learning Strategies' lesson by

integrating it with reading comprehension skills and incorporate it into *Communicative English Skills* courses. Thirdly, any English language instructor or student at university may use the training material this researcher produced as a reference material. The researcher could not find any training material on vocabulary learning strategies. Hence the scarcity of training material in the field makes it invaluable. Fourthly, the researcher was going to present his paper on different research conferences of universities so that there would be a positive effect on awareness raising of students and teachers concerning the importance of vocabulary learning strategies. Fifthly, any English language instructor who was going to read this thesis might get good understanding about vocabulary learning strategies training and could improve his/her classroom practices. In addition, future researchers who would be interested in this less-researched topic might use this study as a benchmark.

1.6. Delimitation of the Study

This research was delimited to investigate whether vocabulary learning strategies training had effects on reading comprehension, vocabulary knowledge and vocabulary strategy use of university students in Ethiopia. Regarding vocabulary knowledge, students' knowledge of receptive vocabulary breadth and receptive knowledge of vocabulary depth were studied. Productive vocabulary knowledge was not the focus of the research. Concerning the training, explicit vocabulary learning strategies training would be offered; implicit vocabulary learning strategies training would not be the focus of this Ph.D. dissertation. The focus was on explicit vocabulary strategy training meaning the trainees received clear instruction on the objectives, explanations, examples and exercises of various vocabulary learning strategies. The main categories are determination, social for discovery, social for consolidation, memory, cognitive and metacognitive. Besides, the study investigated the vocabulary learning strategies used by university students. In relation to the participants, first year Addis Ababa University Natural Science Stream students, who were taking the course 'Communicative English Skills I' were involved in the main study; nevertheless the study did not treat other year level, university, course and college.

1.7. Limitations of the Study

There were some limitations of this study. In this study, only the case of natural science stream students was considered in the main study. More important information could have been gathered if social science stream students were also incorporated in the main study.

The second limitation was connected to sampling. Only Addis Ababa University was used as a sample. Of course, there were many similarities concerning the background of students who joined Ethiopian public universities. Ministry of Education randomly assigned students who had approximately similar demographic characteristics and academic performance. All the students joining the universities scored pass mark in Ethiopian school leaving examination. However, it would have been better to check whether there were special cases in other universities.

The third limitation was regarding the depth of the research. Qualitative data gained through interview or observation was not presented in this study. Such kind of qualitative data could have contributed to the depth and quality of the study. However, to fill in this gap to some extent, an attempt was made to include explanation on why the experimental group students performed better than the control group students in each objective. Since the researcher was also served as a trainer, he stated in detail how the trainees benefited from the training and improved their vocabulary knowledge and vocabulary strategy usage. It could be also more appropriate if focus was made on only one of the skills, either vocabulary or reading skills, and looking at the relationship of the sub-skills. Depth knowledge might also be gained if comparison were also made on the subject of vocabulary learning strategy usage among the high achiever and low achiever students. Moreover, comparison was not made on the topic of the difference between male and female students in vocabulary knowledge, reading comprehension skills and vocabulary learning strategy usage. The students' usage disparity in the major categories of vocabulary learning strategies was not also studied in this research. In addition, the age difference of the students was not the focus of the study.

The COVID-19 pandemic in Ethiopia, especially in the years of 2020 and 2021 had a negative effect on this researcher's study, for classes were closed and this researcher could not collect data and could not conduct the experiment in these years. Hence, the study took more time than it was expected.

All the above limitations were associated with the number of researchers, time and budget of the study. If the research had been conducted by more researchers and if appropriate amount of money and time had been allocated to the project, it could have been a study free from the above limitations.

1.8. Organization of the Study

Chapter one presents introduction of the study. The chapter consists of background information about the key terms in the study and the general status of English language teaching in the world and Ethiopia. As a second subtitle, it consists of problems occurred in vocabulary teaching and learning. This subtitle also discusses the previous related studies and the research gap that the needs to be studied. Moreover, the chapter incorporates the study objectives, significance, research questions, hypotheses, scope and limitations.

Chapter two includes review of related literature. The main topics included in the chapter were the following: vocabulary, vocabulary learning and teaching, vocabulary learning strategies, vocabulary learning strategy use, vocabulary strategy training, reading comprehension, standardized reading tests, vocabulary depth knowledge, vocabulary breadth knowledge, words associates test and vocabulary levels test.

In chapter three, the research design, the instruments employed for data gathering, the sampling method, procedures of the training, assignment of control and experimental groups, description of the experiment, the training material, method of data analysis theoretical framework and conceptual framework were mainly discussed.

In chapter four, results of the following statistical tests were presented and interpreted: independent samples t-test, paired samples t-test, levene's test, kolmogrov-smirnov test,

wilcoxon signed ranks test. The raw data generated from the tests were forwarded both in table and text forms, followed by interpretation of the raw data accompanied with the comparison of other researchers' findings.

Chapter five includes summary, findings of the study, conclusions, recommendations and implications of the study.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.1. Introduction

This unit mainly deals with the issues related to the objectives of this study: learner-centered teaching, autonomous learning, vocabulary learning strategies, vocabulary learning strategies training, vocabulary knowledge and reading comprehension. Moreover, general topics that these sub-topics are emerged from, such as learning strategies, classification of language learning strategies, vocabulary, teaching and learning vocabulary, assessing vocabulary knowledge and reading comprehension learning strategies are discussed. Besides, the researcher's arguments are presented followed by the debates of scholars of different fields; an attempt is made to put the arguments for and against each agenda, together with this researcher's arguments and reflections.

2.2. Learner-centered Teaching

Learner (student) centered teaching is a phrase that is commonly heard in educational institutions and bureaus nowadays. The experience of this instructor also confirms that department heads, deans and presidents usually command their instructors at universities to use learner-centered teaching approach. However, the challenges and input needed to implement this approach are not adequately discussed in the universities that this researcher worked in. What is learner-centered approach? What are its challenges? What skills and knowledge are needed from the teacher to implement it? These questions are addressed as follows.

Learner-centered teaching is defined as teaching taking into consideration crucially learners' needs and experience in the process of the teaching-learning process (Harmer, 2001). Furthermore, he explains the characteristics of Learner-centered teaching that students, with the help of their teachers, are asked to perform tasks in classrooms so that actual learning happens in the process. He also states that the teacher is not serving as knowledge provider, manager and authority; rather he/she is a facilitator and a resource for the learners to draw on. The teacher is also expected to have the following qualities: maturity, intuition, methodological skills, openness to student input and a greater tolerance of uncertainty. In this kind of teaching-learning process, teachers produce a

learning setting encouraging learners to enthusiastically participate in and obtain possession of their learning experiences, a situation stimulating learners to think sincerely about how they might apply what they are learning to their future practice (Moate & Cox, 2015).

According to the experience of this researcher, there are various problems regarding the implementation of student centered teaching. The common problem he usually experiences is students' lack of background knowledge and teachers find it challenging to let their learners do tasks independently with little help. Due to this problem, teachers incline to shift to teacher-centered teaching, extended lecture.

Teachers employing a learner-centered approach facilitate learners' learning interests as they arise by directing discussion and investigation, while being attentive to integrate a variety of learning experiences in the classroom. Including flexible and diverse teaching practices (e.g., lecture, multimedia, experiential activities, discussion) is a crucial feature of smoothing the progress of a learner-centered classroom situation so that a wider variety of student learner preferences can be satisfied (Brown, 2003).

Weimer (2002) discusses in detail what teachers are supposed to do when they implement learner-centered teaching. The first one is teachers must do less frequently the learning tasks of organizing the content, generating the examples, asking the questions, answering the questions, summarizing the discussion, solving problems, constructing the diagrams, and others. On some occasions, especially when there is lack of background knowledge of students, a teacher may do all the above; however, he/she should decrease the frequency. The second recommendation is that teachers have to stop telling students everything they need to know about the course and begin to make it their responsibility to find out what they need to know. A teacher can use this "let them discover" principle with a variety of issues. If someone asks a question that is answered in the text, refer that person to the text, but always with the provision that after checking, he or she is welcome to consult with a teacher. If teachers have already covered some aspect of the content that reemerges in a new context, they let students find the previous information in their notes. The third recommendation is

designing instruction which moves students to a new place of competence, and they do so without being too easy or too difficult; its assignment and learning activities need to motivate student involvement and participation; its assignments and activities need to get students doing the authentic and legitimate work of the discipline and explicitly develops content knowledge and learning skills and awareness. Fourthly, a teacher can model learning processes by doing simple things like talking through the problem-solving processes he/she use when confronted with a problem; Students need to see examples of how learning is hard, messy work even for experienced learners. Fifth, a teacher should do more to get students learning from and with each other; faculty frequently underestimates the potential value of students working together. Much research establishes their ability to learn from and with each other. Sixth, teachers are to a large extent participated in crafting and applying tasks that first they are expected to create and then maintain situations favorable to learning. Seventh, students need to find the motivation and study the ways of overcoming challenges in their education. More time, energy and creativity are devoted to find and use mechanisms that allow the constructive delivery of feedback to students.

The participants of this study received vocabulary strategy training mostly in learner-centered approach. The trainer (researcher) offered brief explanation on the objectives and examples of each strategy and let the students actively did the exercises incorporated under each vocabulary strategy. Much of the class time was spent in students' task of doing the exercise and answering the questions. However, in very few occasions the trainer explained new concepts in detailed manner.

2.3. Autonomous Learning

The central issue of this thesis, vocabulary learning strategies training, emanates from autonomous learning. Language learners cannot learn everything in the classroom because class time is limited they cannot get everything that is useful for the communication they have in the real environment. Therefore, students who study language should look for options that help them overcome the communications barrier

they face outside the classroom. In another expression, they should devise language strategies or they should be good at learning by themselves- autonomous learning. Regarding this issue, Harmer, (2001) states, “To compensate for the limits of classroom time and to counter the passivity that is an enemy of true learning, students need to develop their own learning strategies, so that as far as possible they become autonomous learners” (p.335).

Harmer (2001) further discusses the experience that he got from one language teacher. He says that her students who study by themselves are successful and they do have positive attitude towards themselves and enthusiastic. However, the learners of this teacher who don't study by themselves have low self-esteem, less-successful and don't have good interest in their studies.

Encouraging autonomous learning is not enough; educational institutions and various government bodies should provide different materials to the students. The learning resources that are provided to the learners may have varied forms such as authentic materials such as magazines, television programs, films and music; graded readers, language learning software/web-based resources, drama-based language learning materials, course books, texts for specific skills (e.g. listening, reading, speaking, writing, grammar, vocabulary and pronunciation) and examination preparation texts (Cooker, 2008).

The issue of autonomous learning is directly related to this study because the aim of offering students vocabulary strategy training is enabling them learn vocabulary autonomously (independently). As it is discussed widely in the literature, we cannot teach all the words in the dictionary. We teach them only most frequent words and others are covered by students themselves.

2.4. Learning Strategies

It is supposed that it is logical to begin this literature review by introducing the readers what learning strategies are. Therefore, the definitions given to learning strategies are stated as follows. O'Malley & Chamot (1993) define learning strategies as the particular

views or activities that students utilize to assist them understand, study, or keep novel information. Anderson (1999) explains that strategies are specific actions taken to accomplish a given task. Brown (2007) discusses the topic as, "...the actual techniques learners employ in systematically tacking input and output" (p. 132). A definition which relates learning strategy with a game is also provided: a goal-oriented tactic used by a player in skilled performance (Williams & Burden, 1997). Learning strategies are therefore procedures of a cognitive, affective, social or moral nature, which the learner adopts to carry out an activity in the classroom, in order to participate and work towards an activity, in order to achieve a short- or longer-term goal set by themselves or the teacher (Hewitt, 2008). This definition is well explained for it composes of the different aspects learning strategies. However, this definition focuses on only what is going in the classroom; it is known that learning strategies can also be used by learners when they study independently outside the classroom. Based on all the above definitions, it can be probable to infer that learning strategies are techniques used by learners to understand the subject matter they are taught in the classroom or outside the classroom and attempts to let the concepts they have learned easily unforgettable.

Nisbet & Shucksmith (1986) propose that learning strategies go further a simple series of learning skills or processes. They are almost always purposeful and goal-orientated, but not necessarily conscious or intentional. This is a good insight that usually what comes to mind when one thinks of learning strategies is that only the deliberate one; however, sometimes learners may use some techniques to learn that they aren't aware of.

2.5. Language Learning Strategies

A layman definition of language learning strategies may be best techniques which are used to make language learning simpler. However, it is recommended to put here what scholars stated. Language learning strategies are those specific 'attacks' that we make on a given problem. They are related to input- processing, storage, retrieval that is to taking messages from others (Brown, 2000). Even though Brown connects language learning strategies to input, Macaro (2001) refuses this idea that they can be related to output too. He argues that it would be difficult to deny that there is a process of learning going on simultaneously with the process of communicating. By learning to maintain

communication through various strategies we keep the conversation going and therefore end up talking more than if we just clammed up.

The researcher of this thesis also supports the point raised by Macaro, for he believes that language learning is not only about receiving input (listening and reading) but it is also about output (speaking and writing); one cannot learn effectively if he/she does not practice what he/she has gathered. Hurd & Lewis (2008) termed the issue as independent language learning strategies and they defined as the range of means developed to raise learners' awareness and knowledge of themselves, their learning needs and preferences, their beliefs and motivation and the strategies they use to develop target language (TL) competence. The researcher of this thesis has also found this definition worthy because he believes that psychology elements; such as needs, preferences, beliefs, motivation and individual effort matter a lot in language learning.

2.6. Classification of Language Learning Strategies

The renowned classifications of language learning strategies are stated by Oxford (1990), O'Malley & Chamot (1990). "The initial research effort generated two well-known taxonomies of language learning strategies, by Oxford (1990) and by O'Malley and Chamot (1990)" (Dornyei, 2005, p.168). Oxford (1990) classifies LLSs into two major categories: direct strategies for dealing with language and indirect strategies for general management of learning. Direct strategies directly consist of the target language and are grouped into three groups: (1) memory, (2) cognitive, and (3) compensation strategies. The three groups of direct strategies require different mental processing of L2 and for different purposes. Memory strategies aim to help learners store and retrieve information. Cognitive strategies facilitate learners' understanding and use of L2 by many different means. Finally, compensation strategies are used to bridge some knowledge gaps during receptive and productive use of L2.

Meta-cognitive, affective and social strategies are classified under the indirect group. "Metacognitive beyond the cognitive strategies help learner to regulate their own cognition and to focus, play, evaluate their progress as they move toward communicative competence" (Oxford, 1992, p. 8). Affective strategies improve the self-assurance and

determination desired for students to include themselves enthusiastically in language learning, an obligation for attaining communicative competence (Oxford, 1992). “Social strategies enable learners work with others and understand the target culture as well as the language (e.g., asking questions to get verification, asking for clarification of a confusing point, asking for help in doing a language task, talking with a native-speaking conversation partner, and exploring cultural and social norms)” (Oxford, 1992, p. 8).

The findings of O'Malley & Chamot (1990) indicate three categories of LLSs, namely metacognitive, cognitive and social mediation strategies. The metacognitive strategies involve 'higher order executive skills that may entail planning for, monitoring, or evaluating the success of a learning activity'. Three subcategories for Metacognitive strategies are recognized. They are strategies for (1) planning (advance organizers, directed attention, functional planning, selective attention and self-management), (2) monitoring (self-monitoring) and (3) evaluation (self-evaluation). The category of cognitive strategies includes the strategies that are directly related to the process of learning. The study proposed fourteen cognitive strategies. These are resourcing, repetition, grouping, deduction, imagery, auditory representation, keyword method, elaboration, transfer, inferencing, note-taking, summarizing, recombination and translation. Finally, the social strategies refer to interaction with others (classmates, teachers, native speakers, speakers of L2, e.t.c.) in order to learn and practice L2. They comprise two strategies: (1) questions for clarification and (2) cooperation.

The classifications done by Oxford, O'Malley & Chamot are related in the case that they both include three major strategies: metacognitive, cognitive and social. Although Oxford lists compensation, memory and affective strategies as a sub-group clearly, O'Malley & Chamot discusses only memory under cognitive category, excluding compensation and affective strategies.

Wenden & Rubin (1987) classifications, in a different expression, comprises of the classifications made by the above two scholars. They clearly put cognitive, metacognitive and social strategies as mentioned in the above two divisions but they employed a new term, communication strategy, which is an equivalent to Oxford's compensation strategy.

They divide language learning strategies into learning, communication, and social strategies. Learning strategies, which straight forwardly help to language learning, consists of cognitive and metacognitive strategies. Cognitive strategies stand for procedures employed in acquisition or problem solving that needs analysis, transformation, or synthesis of learning materials. They comprise of clarification or verification, guessing or inductive inference, deductive reasoning, practice, memorization, and monitoring. Metacognitive strategies represent steps of overseeing, regulating, or self-directing the learning, which incorporate planning, prioritizing, goal setting, and self-management. Unlike learning strategies, communication and social strategies have indirect significance to language learning since they do not direct to obtaining, storing, retrieving, and using of language. Communication strategies assist speakers in overcoming difficulties caused by limitations in communication way or addressee's misunderstanding; whereas, social strategies aid language users get opportunities to be exposed to the language, or to practice the knowledge.

Stern (1992) introduced three new terms to the classification of language learning strategies: management and planning, communicative-experiential and interpersonal. Of course these terms are explained in different English by the scholars above. Management and planning strategies are all about learners' intention to regulate their own learning, with the help of teachers, whose roles are as advisors or resource persons. This term 'management and planning' is termed as 'metacognitive' by the above authors. This word, 'communicative-experiential' is described as compensation in Oxford's classification. Interpersonal strategies constitute efforts to monitor learners' own learning progress and to evaluate performance, and affective strategies are concerned with emotional issues in the learning process. The strategies grouped under interpersonal strategies here are also listed under metacognitive strategies by the above four scholars. Cognitive strategies stand for operations used in learning or exploratory that needs straight investigation, renovation, or synthesis of study materials, whilst communicative-experiential strategies are activities performed by learners, such as circumlocution, gesturing, paraphrase, or asking for repetition or explanation, so that a conversation keeps going.

2.7. Language Learning Strategies Training

2.7.1. The rationale for language learning strategies training

Some of the reasons behind offering strategy training are related to acquainting students with the techniques employed by successful students and motivating the learners. Grenfell & Harris (1999) state that if effective learners have a wider range of strategies than their less effective peers, then it seems rational to mediate and give them the chance to acquire these tools. It could also be debated that making clear to learners how to run the learning process might not only provide to raise such students' range of strategies, it might also improve their motivation.

Murphy (2008), also specifically states the need for language strategy instruction by mentioning the observation of individuals who studied on the issue. She said that less successful language students sometimes have no clue what strategies they employ or rely on a few non-communicative techniques such as translation, rote memorization and repetition. It was debated that, if application of strategies distinguished the successful learner, strategy training should become part of language learning programs.

Although offering training in language learning strategies is accepted world-wide, there are some difficulties raised by scholars. Rees-Miller (1993), for instance, expresses his worry that this approach is far too simplistic, disregarding the effect on strategy use of cultural differences, age, educational background, beliefs about language learning and differing cognitive styles. In contrast to previous results that less successful learners do not use adequate strategies. Chamot (2001) found that less successful learners frequently employ strategies as often as successful learners but employ them in a different way and do not seem to choose properly.

Based on the findings of the studies in the field (Chamot & Kupper, 1989; O'Malley & Chamot, 1990; Oxford, 1990), teachers can offer language learning strategies training, by following the models proposed by scholars of the field, and can make their students aware of the variety of language learning strategies so that they can choose the strategies that are helpful for them.

2.7.2. Models for language strategy training

There are four common language strategy training models, proposed by four different scholars, which help learners in familiarizing themselves with the various language learning strategies, practicing using the strategies and employing the strategies in their future educational career. Three of these models are extracted from Cohen's book (1998). The model of Cohen is paraphrased from a study by Lui (2010, P.103).

1. A framework, planned by Pearson and Dole (1987) regarding first language acquisition but also feasible to the learning of a second language, focuses independent strategies by incorporating overt reproduction and clarification of the advantages of practicing a particular strategy, wide functional application with the strategy, and a chance to transfer the strategy to new learning situations. The sequence incorporates the subsequent steps:
 - First example of the strategy by the teacher, with straight clarification of the strategy's utilization and benefit
 - Assisted exercise with the strategy
 - Combination, place teachers assist learners recognize the strategy and make a decision when it might be employed
 - Autonomous exercise with the strategy
2. Implementation of the strategy to new activities in the second framework, Oxford (1990) states a plan as a useful step for the introduction of strategies that stresses overt strategy knowledge, discussion of the benefits of strategy employment, functional and situational exercise with the strategies, self-examination and supervising of language achievement, and proposals for or displaying of the applicability of the strategies to new tasks. This step is not dogmatic of strategies that the students are required to employ, but rather expressive of a range of strategies that they could utilize for a variety of learning activities. She suggested the next sequences to be noted while training language strategy.
 1. Determine the learners' needs and the time available.
 2. Select strategies well.

3. Consider integration of strategy training.
4. Consider motivational issues.
5. Prepare materials and activities.
6. Conduct “completely informed training.”
7. Evaluate the strategy training.
8. Revise the strategy training. (Oxford, 1990, p.204)

3. The third framework, produced by Chamot & O’Malley (1994), is particularly helpful after learners have already had exercise in practicing multiple of strategies in diversified situations. Their approach to assisting trainees, perform language learning activities can be explained as a four phase analytical procedure.

(A) Planning- Learners target methods to study a learning task.

(B) Monitoring- Learners self-evaluate their ability by focusing on their strategy utilization and examination of understanding.

(C) Problem Solving- Learners look for solutions to problems they face.

(D) Evaluation- Students learn to evaluate the effectiveness of a given strategy after it has been applied to a learning task.

4. Cohen's model: Cohen's (1998) Styles and Strategies-Based Instruction Model (SSBI) is a learner-centered approach, which includes both explicit and implicit integration of strategies into the course content. Generally speaking, in a SSBI Model, the teachers usually play the following roles:

(A) Teacher as diagnostician- The teacher helps the students identify current strategies and learning styles

(B) Teacher as language learner- The teacher shares own learning experiences and thinking processes.

(C) Teacher as learner trainer- The teacher trains the students how to use learning strategies.

(D) Teacher as coordinator- The teacher supervises students’ study plans and monitors difficulties.

(E) Teacher as coach- The teacher provides ongoing guidance on students’ progress. Comparatively speaking, Cohen's model describes and

prescribes what a teacher should do in a regular EFL classroom. It provides more flexibility for teachers to explicitly and implicitly embed the language strategies training into regular classroom program. And it makes more sense in the context of student-centered EFL instruction. Many experimental or non-experimental strategies training researches on cognitive and meta-cognitive strategies training adopt this model.

Among the four models discussed above, Oxford (1990) model was chosen and employed in the current research project because it incorporates a detailed and well planned set of procedures of vocabulary strategy training. As it is discussed above, it is much better than the other models because it involves 8 steps clearly and in elaborated way. It begins with determining students' needs' and time available and ends with evaluating the training. The model also evidently shows the job division of the trainees and trainer. It is logical to apply the steps as it is also acknowledged by the current lesson planning of pedagogical science. A successful lesson plan consists of the following 6 steps: outlining learning objectives, developing the introduction, planning the specific learning activities (the main body of the lesson), planning to check for understanding, developing a conclusion and a preview and creating a realistic timeline (Fink, 2005).

2.7.3. Options for providing language strategy training

Cohen (1998) also discusses seven common ways of offering language strategy training in various educational institutions as stated below.

1. General study skills courses

These courses are occasionally proposed for low-achiever learners; however, they can also be intended for high-achiever learners who are willing to enhance their study habits. Numerous general educational skills can be applied to the course of a foreign language study, for instance employing flash cards, getting control of frustration, and studying satisfactory note-taking skills. These courses at times consist of language study as a particular topic to underscore how studying a foreign language may be at variance from

studying other school subjects. Foreign language trainees can be appreciated to take part in order to enhance general learning strategies.

2. Awareness training: lectures and discussion

Awareness training is also expressed as consciousness-raising or familiarization training. It usually includes separate teacher talks and debate and is regularly isolated from usual classroom training. This approach offers learners with a general introduction to strategy implementation. Oxford (1990) expresses awareness instruction as a course in which trainees know and get acquainted with the general idea of language learning strategies and the way such strategies can assist them complete different language activities.

3. Strategy workshops

Short workshops are additional, generally more rigorous, approach to raising student knowledge of strategies in the course of a range of consciousness-raising and strategy-evaluation activities. They may assist to develop particular language skills or provide ideas for studying definite features of a specific foreign language. These workshops may be provided as non-credit courses or pre-requisite as component of a language or academic skills course. They regularly mix lectures, concrete exercise with particular strategies, and debates about the usefulness of strategy utilization.

4. Peer tutoring

“Tandem” or peer tutoring programs started in the 1970s in Europe and are booming in various universities throughout the USA. Holec (1988) as stated in Cohen (2003) expresses this system as “a direct language exchange” course that couples learners of diverse mother-tongue backgrounds for communal tutoring classes (e.g., an English-speaking learner learning French and a mother-tongue speaker of French studying English). The necessities of the tutoring classes are that trainees have constant classes, rotating responsibilities of learner and teacher, perform the two languages independently, and allocate the same total of time to every language. Often, students exchange suggestions about the language learning strategies they use, thus providing an ad hoc form of strategy training. Another approach to peer sessions is to encourage students who

are studying the same language to organize regular target-language study groups. Students who have already completed the language course may also be invited to these meetings. Low achiever trainees can gain from the language skills of more capable trainees, and high-achiever trainees may have better knowledge and skills about the specific complexities of the studied language than a trainer.

5. Strategies in language textbooks

Several foreign language course books have started to insert strategies into their curricula. Nevertheless, unless the strategies are explained, modeled, or reinforced by the classroom teacher, students may not be aware that they are using strategies at all. Only some language course books offer strategy-entrenched tasks and unambiguous details of the advantages and practice of the strategies they deal with. Because the stress of the tasks is situational language study, trainees can improve their study strategy range while studying the language under study. A benefit of employing course books with overt strategy study is that learners do not need extracurricular teaching; the textbooks strengthen strategy employment across both tasks and skills, encouraging students to continue applying them on their own.

6. Videotaped mini-courses

Rubin (1996) as put in Cohen (2003) produced an interactive videodisc program and associated training manual intended to improve learners' understanding of study strategies and of the study course in general, to demonstrate learners how to apply strategies to novel activities and to assist them take responsibility of their own development while studying the language. Using authentic language situations, the instructional program includes 20 foreign languages and offers the opportunity to select the language, topic, and difficulty level. Resources are prearranged to expose learners to different strategies for employment in many various situations.

7. Strategies-based instruction (SBI)

SBI is a student-centered way to teaching that expands classroom strategy instruction to incorporate both implied and stated combination of strategies into the instructional

content. Learners practice the advantages of methodically practicing the strategies to the study and use of the language they are studying. Moreover, they have chances to share their favored strategies with other learners and to develop their strategy use in the typical language activities they are required to do. Teachers can personalize strategy instruction, propose language-specific strategies, and strengthen strategies while presenting the standard instructional content.

2.7.4. Language strategy training materials

Oxford (1990) states an instructor can use a material that he used for language instruction, for strategy training as well. Moreover, he advises the preparation of handouts on how and when to employ the strategies an instructor wants to focus on. For long term training, developing a handbook, which can be utilized by students at home and in class, is recommended by Oxford. However, as a better option he raises the idea of making learners develop their own strategy handbook. Therefore, the two major alternatives are selecting language tasks and materials that are probably interesting to the learners or get the students choose by themselves their language activities and materials.

O'Malley and Chamot (1990) also put the following regarding activities strategy training material.

Selective attention is taught as students identify unknown words; then they use a variety of cognitive strategies to understand and remember them. Examples are transfer of cognates from the native language, making inferences by using context clues, grouping words according to function or semantic category, and elaboration by using the words in new sentences. Cooperative activities for vocabulary development include both pair and group work. (p. 204)

2.8. Vocabulary

Various scholars define the word 'vocabulary' in different ways. Carter (1998), for example, define a word as a synonym of vocabulary in three various aspects. He calls his first definition 'an orthographic definition' and defines a word as a practical common-

sense definition. It says, quite simply, that a word is any sequence of letters (and a limited number of other characteristics such as hyphen and apostrophe) bounded on either side by a space or punctuation mark. Second, he says that it might be more accurate to define a word as the minimum meaningful unit of language. His third possible definition of a word is that it will not have more than one stressed syllable. However, Schmitt (2000) distinguishes a word from vocabulary as the term *word* is too general to sum up the various forms vocabulary takes. And he gives examples as the following six items mean the same thing, 'to die', though they are made up of one word to six words: die, expire, pass away, bite the dust, kick the bucket and give up the ghost. He states that to handle these multiword units, the term *lexeme* (also *lexical unit* or *lexical item*) was coined. These three interchangeable terms are all defined as "an item that functions as a single meaning unit, regardless of the number of words it contains. Thus, all of the six examples above are lexemes with the same meaning".

Schmitt (2000) further raises a point that the term *word* also has difficulties with the various grammatical and morphological permutations of vocabulary. It is not all that clear whether *walk*, *walked*, *walking*, and *walks* should be counted as a single word or four. It seems that it is better to agree on one common definition of vocabulary as a word or words of a certain language, that may be a single word or several words of a phrasal verb or idiomatic expression, which hold one specific meaning.

2.9 Teaching and Learning Vocabulary

Different scholars (e.g. Carter, 1998 & Schmitt, 2000) recommend the best possible ways to learn and teach vocabulary in order to make learners rich in words and able to understand written texts and lectures and communicate their ideas in written and spoken language. Carter (1998) teaches the difference between teaching vocabulary for receptive skills and teaching vocabulary for productive skills. He states, "Some teaching techniques are better suited for comprehension than for production, and vice versa. For example, as a teaching technique cloze procedure encourages skills of lexical comprehension, especially in reading" (p.239). He also advises primary school teachers to focus on variety of techniques to support memorization. Specifically, teaching techniques which

encourage imagistic and picturable associations across L1 and L2 can be helpful. The other point advised by this author to elementary language learners is that to have constant reference to the notion of certain words being more core than others. Word lists should be examined in the light of theories of core vocabulary.

Carter (1998) puts that specific attention should be offered to phonological patterns to support retention in the lexical store. It is required that a psycholinguistic perception of words as individual 'entities' to be reconciled with more pragmatic, social encounters with words in discourse contexts of real use.

Carter (1998) states that advanced students should give attention to production so emphasis should be given to teaching of words in a network of semantic associations. The teaching of words in semantic sets or grids can be beneficial here.

The following are the additional points, made by Carter (1998), regarding vocabulary learning/teaching:

- The skills of guessing and of using contextual clues to make inferences is important, especially in reading in a foreign language and especially if the learner is to become more self-reliant.
- Teaching fixed expressions can be valuable at all levels and is especially important to allow learners access to more routinized aspects of production and to the essential skills of maintaining discursal relations through language use. 'Fixed expressions' also include here collocations, idioms, etc.
- Teaching words in discourse fosters the development of advanced skills of production but encourages appreciation of the syntactic, semantic and pragmatic functions of lexical items at all levels. The fuller activation of these skills is dependent on the kinds of knowledge of lexical patterning which only extensive computer databases can reveal; but, in particular, skills of negotiating, meaning and marking attitudes can be extended if attention is given to lexical items in texts and discourse contexts. Too great a focus on

learning vocabulary as individual decontextualized items may lead to neglect of these skills.

Schmitt (2000) lists the amount of words a language learner needs for various purposes: 2,000 words for conversational speaking, 3,000 word families to begin reading authentic texts, as many as 10,000 for challenging academic texts, and 15,000 to 20,000 to equal an educated native speaker.

Schmitt (2000) also raises two types of vocabulary study: explicit study and incidental study. He says that the most frequent 2,000 words are best learned explicitly; however, less frequent words may have to be mainly acquired incidentally. Furthermore, he advises that while explicitly teaching vocabulary, it is useful to stay away from cross-association, to teach underlying meanings and complete word families, and to be conscious of the intra-lexical and cross-linguistic factors that may make certain words difficult for our learners.

Concerning incidental learning, Schmitt (2000) states that reading can provide a good context, although only large amounts of it are probably to guide to any important vocabulary development. Therefore, he adds that, extensive and narrow reading programs may be the most valuable for students. Nevertheless, he states that guessing from context is an important way to access vocabulary, but has limitations and may be more of a reading skill than a vocabulary acquisition one. He also stresses that vocabulary acquisition is an incremental process, and teachers must concentrate not only on introducing new words, but also on enhancing learners' knowledge of formerly presented words.

Nation (2000) discusses valuable issues under the unit 'teaching and explaining vocabulary'. The researcher of this thesis has summarized the unit as follows.

- 'The what is it?' technique is a helpful mode of instructing new vocabulary, specifically becoming get acquainted with the spoken variety of the word and connecting it to its meaning. The instructor slowly explains the meaning of a word by applying it in context. When the learners believe they comprehend the

meaning of the word, they lift their arms. After sufficient hands are raised, the teacher asks a trainee for a translation or explanation of the meaning.

- Repetition and learning: Repetition is essential for vocabulary learning because there is so much to know about each word that one meeting of it is not sufficient to gain this information, and because vocabulary items must not only be known they must be known well so that they can be fluently accessed. Repetition thus adds to the quality of knowledge and also to the quantity or strength of this knowledge.
- Direct communication of word meaning can occur in a variety of situations - during formal vocabulary teaching, as incidental defining in lectures, storytelling, or reading aloud to a class, and during deliberate teaching of content as in lectures, on-the-job instruction, and glossing or "lexical familiarization" in academic reading.
- Real objects, pictures etc. are often seen as the most valid way of communicating the meaning of a word, all ways of communicating meaning involve the changing of an idea into some observable form and all ways of communicating meaning are indirect, are likely to be misinterpreted, and may not convey the exact underlying concept of the word. An advantage of using actions, objects, pictures or diagrams is that learners see an instance of the meaning and this is likely to be remembered. If this way of communicating meaning is combined with a verbal definition then there is the chance that what Paivio calls "dual encoding" will occur. That is, the meaning is stored both linguistically and visually.
- Translation is often criticized as being indirect, taking time away from the first language, and encouraging the idea that there is an exact equivalence between words in the first and second languages. These criticisms are all true but they all apply to most other ways of communicating meaning. For example, there is

no exact equivalence between a second language word and its second language definition.

➤ Helping learners comprehend and learn from definitions

1. Provide clear, simple, and brief explanations of meaning
2. Draw attention to the generalizable underlying meaning of a word
3. Give repeated attention to words Knowledge of a word can only accumulate
4. Help learners recognize definitions
5. Prioritize what should be explained about particular words
6. Help learners remember what is explained
7. Avoid interference from related words

➤ Spending time on words

- It is worth spending time on a word
- Pre-teach
- Replace the unknown word in the text before giving the text to the learners
- Put the unknown word in a glossary
- Quickly give the meaning
- Do nothing about the word
- Spend time looking at the range of meanings and collocations of the word

- Rich instruction: Sometimes the reason for explaining a word is to remove a problem so that learners can continue with the main task of understanding a text or communicating a message. In these cases, a short clear explanation is needed. Often a translation, a quick definition in the form of a synonym, or a quickly drawn diagram will be enough. Sometimes however, because the word is important, it may be appropriate to provide rich instruction. This involves giving elaborate attention to a word, going beyond the immediate demands of a particular context of occurrence. In general rich instruction is appropriate for high frequency words and words for which the learner has special needs.

- The most appropriate time to offer rich instruction is when the students have already met the word many times and may be ready to make it part of their usable vocabulary. The purpose of rich instruction is to set up the word as an available vocabulary item. Rich instruction incorporates (1) spending time on the word, (2) overtly investigating different features of what is incorporated in comprehending a word, and (3) including the students in attentively and enthusiastically dealing out the word. Rich instruction can be a teacher-led task, it can be learner-led specifically when learners report on words they have come across and discovered, it can be performed as group work, or it can be done in individualized exercises.
- Attention to the spoken form has the goals of getting learners to be able to recognize a word when they hear it, and to be able to pronounce a word correctly.
- Written form: Although English has a very irregular spelling system, there are patterns and rules which can guide learning. Some learners may require particular attention to writing the letter shapes if their first language uses a different writing system from English.

2.10. Vocabulary Learning Strategies

English language experts classified also all the major language skills' (speaking, listening, reading and writing) learning strategies and the language items (vocabulary and grammar) learning strategies. Since the focus of this research is on vocabulary, vocabulary learning strategies are emphasized here under. It is challenging to come up with all-inclusive vocabulary learning strategies. One of the reasons may be the following as put by Schmitt (1997): the process of learning L2 vocabulary is a mental process in the first place and because this process interlocks with the more general language learning and production strategies. Therefore, it is quite difficult to settle on a non-debatable taxonomy of VLSs.

Like language learning strategies, vocabulary learning strategies are classified by many authors. Among these scholars, Schmitt (1997) and Nation (2001) have widely known VLSs taxonomies. Schmitt (1997) has developed a taxonomy of vocabulary learning strategies based on an extensive language learning strategies' taxonomy organized by Oxford's (1990), including Memory, Cognitive, Compensation, Metacognitive, Affective, and Social categories. The following is the strategy inventory offered by Schmitt (1997):

Category 1: Strategies for the discovery of a new word's meaning

- Determination Strategies (DET): analyze part of speech, analyze affixes and roots, check for L1 cognate, analyze any available pictures or gestures, guess meaning from textual context and use a dictionary (bilingual or monolingual)
- Social Strategies: ask teacher for a synonym, paraphrase, or L1 translation of new word and ask classmate for meaning.

Category 2: Strategies for consolidating a word once it has been encountered

- Social Strategies: study and practice meaning in a group and interact with native speaker.
- Memory Strategies: connect word to a previous personal experience, associate the word with its coordinates, connect the word in its synonyms and antonyms; use semantic maps, image word form, image word's meaning, use Keyword Method, group words together to study them, study the spelling of a word, say new word aloud when studying and use physical action when learning a word
- Cognitive Strategies: verbal repetition; written repetition; word lists; put English labels on physical objects and keep a vocabulary notebook
- Metacognitive strategies: use English-language media (songs, movies, newscasts, etc.); test oneself with word tests; skip or pass new word and continue to study word over time.

A taxonomy of kinds of vocabulary learning strategies offered by Nation (2001) was put together and, then reclassified under three general classes of strategies as follows:

Category 1: Planning: choosing words, choosing the aspects of word knowledge, choosing strategies, and planning repetition.

Category 2: Sources: analyzing the word, using word parts, learning from word cards, using context, using a dictionary, consulting a reference source in L1 and L2; and using parallels in L1 and L2.

Category 3: Processes: noticing; retrieving; and generating.

Although the above two taxonomies have few differences in the details, they are generally related. The difference between the two taxonomies is that Nation, unlike Schmitt, gave emphasis on the planning stage. However, category 2 and 3 of Nation is stated by Schmitt in different expression but in a detailed way. The researcher of this thesis will adapt the taxonomies of Schmitt (1997) and use in his thesis, as this scholar has researched a lot about vocabulary learning strategies and his taxonomy is clear and detailed.

There are also other vocabulary taxonomies, which are stated below.

A. Vocabulary Learning Strategy Classification by Weaver and Cohen (1997)

Category 1: Categorisation:

- Categorise vocabulary items according to meaning
- Categorise vocabulary items according to part of speech
- Categorise vocabulary items according to formal vs. informal language forms
- Categorise vocabulary items according to alphabetical order, or types of clothing or food;

Category 2: Keyword mnemonics:

- Find a native-language word or phrase with similar sounds,
- create a visual image that ties the word or phrase to the target-language word;
- Learn pato in Spanish by selecting the similar-sounding English word 'pot'
- Create a mental image of a duck with a pot on its head;

Category 3: Visualisation:

- Learn vocabulary items through mental images, photographs, charts, graphs, or the drawing of pictures;

Category 4: Rhyme/rhythm:

- Make up songs or short ditties;

Category 5: Language transfer:

- Use prior knowledge of native, target, or other language structures;

Category 6: Repetition:

- Repeat words over and over to improve pronunciation or spelling,

- Try to practise the words using all four language skills: - write new sentences, - make up stories using as many new words as possible, - read texts that contain those new words, - purposely use the words in conversation and listening for them as they are used by native speakers

B. Vocabulary Learning Strategy Classification by Hedge (2000)

Category 1: Cognitive Strategies

- Making associations;
- Learning words in groups;
- Exploring range of meaning;
- Using key words. A keyword is a word chosen from the mother tongue which sounds like the new word in the second or native language, and where it is possible to make some kind of association between the two words;
- Reading on for evidence in the context of the text;
- Inference strategy

Category 2: Metacognitive Strategies

- Consciously collecting words from authentic contexts;
- Making word cards;
- Categorising words into lists;
- Reactivating vocabulary in internal dialogue;
- Making a word-network of vocabulary associated with a particular item.

Vocabulary Learning Strategy Classification by Cook (2001)

Category 1: Strategies for getting meaning:

- Guessing from situation or context;
- Using a dictionary;
- Making deductions from the word-form;
- Linking to cognates

Category 2: Strategies for acquiring words:

- Repetition and rote learning;
- Organising words in the mind;
- Linking to existing knowledge

The above strategies classified by Weaver and Cohen (1997), Hedge (2000) and Cook (2001) are good in a sense that they incorporate the basic common vocabulary strategies but they are not as detailed as Schmitt (1997) vocabulary learning strategy classification. Therefore, this classification is more preferred than the above mentioned categorizations. 55 vocabulary learning strategies incorporated in the questionnaire of Schmitt (1997) were classified into 6 types (determination, social for discovery, social for consolidation, memory, cognitive and meta-cognitive). The total strategies in the questionnaire were 58; 3 of them were cut out in this research project.

2.11. Training of Vocabulary Learning Strategies

Cohen (2003) states the most efficient way to enhance learner knowledge is to offer strategy training. He adds that Strategies-Based Instruction (SBI) is a student-centered way to teaching and it may incorporate both implied and stated combination of strategies into the instructional content. In his book, it is explained that in a model SBI classroom, teachers clarify and give example for strategies, get facts from learners' study experiences, guide debates about strategies, motivate learners to try to use a range of strategies and incorporate strategies into instructional materials. This suggests that we should incorporate strategy training in our classes, but raises the question of how effective such training is.

The results of research on Strategies-Based Instruction (SBI) on learners' language development aren't consistent: some studies report a reasonable degree of success, whereas others report only limited success, or even student resistance (Schmitt, 1997). But in his survey of classroom-based studies, McDonough (1995) concludes that improvements from training are weak, culturally dependent, and show up only in certain measures. On the other hand, Stoffer (1995) states strategy training was the sole most preferred forecaster of the employment of vocabulary-learning strategies, while Hulstijn (1997) quotes a range of research indicating benefits in the effective employment of a specific mnemonic strategy, the keyword technique, after strategy instruction. Moreover, an up to date research by Gay (2022), which focuses on the effects of technology-enhanced vocabulary learning strategy training on learners' vocabulary progress, puts that students who start the term with lower vocabulary test scores be tended to

considerably develop their vocabulary ability, as computed by the disparity between exam results at the opening and finishing of term. Nevertheless, the vocabulary strategy training was not noteworthy to the vocabulary capacity of those who started the term with higher scores. Nation (2001) reviews related research results for the strategy of contextual guessing. All these conflicting research results indicate that many more studies are needed regarding training on vocabulary learning strategies. So, it is very difficult to suggest training of strategies to improve students' language skills before we apply it in a classroom and check its result.

Schmitt (2000) put the reasons behind offering training of vocabulary learning strategy as, "You will not be able to teach all the words students will need, and even the input generated by extensive reading has its limitations. Students will eventually need to effectively control their own vocabulary learning. ...so it seems reasonable to introduce them to a variety of strategies and let them decide which ones are right for them."

It is also vital to discuss here how should vocabulary strategies training should be offered if one believes in the necessity of the training. Nation (2000) states it is important to make training in strategy use a planned part of a vocabulary development program. This planning involves 1. deciding which strategies to give attention to 2. deciding how much time to spend on training the learners in strategy use 3. working out a syllabus for each strategy that covers the required knowledge and provides plenty of opportunity for increasingly independent practice 4. monitoring and providing feedback on learners= control of the strategies.

He also advises that for each of the strategies like guessing from context, using word parts, dictionary use, and direct learning, learners need to spend a total of at least four or five hours per strategy spread over several weeks.

Nation (2000) lists the options teachers need to choose from and sequence them in a suitable way:

- A. The teacher models the strategy for the learners.
- B. The steps in the strategy are practiced separately.

- C. Learners apply the strategy in pairs supporting each other.
- D. Learners report back on the application of the steps in the strategy.
- E. Learners report on their difficulties and successes in using the strategy when they use it outside class time.
- F. Teachers systematically test learners on strategy use and give them feedback.
- G. Learners consult the teacher on their use of the strategy, seeking advice where necessary.

The authors of the course for educating teachers for Strategy-Based Instruction, Weaver and Cohen (1997) as stated in Tacač (2008) devote one of their course units to training vocabulary learning strategies. The unit has the following structure: (1) Immediate experience in vocabulary learning. Participants are given the task of learning word lists and are instructed to pay attention to the ways in which they learn them, i.e. to learning strategies. After the task is completed, they are given a short test to check the acquisition level. (2) Discussion in small groups on efficiency in vocabulary learning, including a description of strategies used by participants. (3) Accumulation of all vocabulary learning strategies mentioned by the participants. (4) The course leader extends the list by adding new strategies and gives explanations. This is followed by a discussion on the possibilities of strategy transfer to new tasks.

2.12. Reading Comprehension

Passing through many years in school, one may easily understand that reading comprehension has a paramount importance to be effective in academic achievement. Thompson and Vaughn (2007) ask that whether there is any more important goal in reading than comprehension. They add that the whole purpose of learning to read is to understand and learn from text. While phonics and word reading are the beginning building blocks of reading, reading for pleasure and knowledge are the ultimate point. Reading comprehension is the process of constructing meaning by coordinating a number of complex processes that include word reading, word and world knowledge, and fluency (Klingner et al., 2007).

Reading and comprehending are two almost interchangeable terms, as the purpose and ultimate goal of reading is comprehension (Nation, 2005). Grabe and Stoller (2002) also indicate that reading comprehension is processing words, forming a representation of general main ideas, and integrating it into a new understanding. Hudson (2007) also gives a definition that associates reading with a top-down approach where it is claimed that reading is a discriminating procedure. It consists of limited utilization of accessible least language signs chosen from perceptual input in accordance with the reader's anticipation.

Day and Park (2005) classify reading comprehension into six diverse kinds of comprehension that can function jointly in parallel and/or in a linear way: literal comprehension, reorganization, inference, prediction, evaluation, and personal response. Literal comprehension is the comprehension of data and truth explicitly put in the passage, such as skimming and scanning. Reorganization stands for constructing two or more parts of information included in the passage to form a complete idea. Inference refers to using clues in the passage together with readers' own experience to assist them identify what is not explicitly put. Prediction is related to employing information from a text and one's own experience to forecast what they are going to read. Evaluation in reading is comprised of forming opinions, making judgments and developing ideas. Personal response allows readers to associate to a text, to reflect on their own reading process and to make sense of the reading in their own lives.

The above mentioned six kinds of reading comprehension are related each other in that all the skills begin by understanding what is clearly stated. Moreover inference, prediction, evaluation and personal response connect what is explicitly stated and personal experience while literal comprehension and reorganization focus on only what is clearly put.

A lot has been also said about the problems one faces if he/she is not good at understanding a certain text. Some of them are stated as follows. There is often a breakdown with reading comprehension. This breakdown may be attributed to many reasons, including failure to understand word meanings; inadequate background knowledge; lack of interest in text; or disconnect between instruction, text, and learner

(Thompson & Vaughn, 2007). Reading difficulties can interfere at each step of the comprehension process. For example, to comprehend a story, the reader has to continually recall the preceding words, sentences, and pages in the story. For some students, the process of decoding consumes so much of the brain's metabolic activity that there appears to be an inadequate flow of oxygen and glucose to support the metabolism in the brain's cortical areas of memory storage.

Without the ability to connect each new word, sentence, or page with those that came before, children cannot build a comprehensive understanding of the words they read (Wills, 2008). Those who experience difficulties understanding written text may face many barriers preventing them from participating fully in life, and gaining access to information that most individuals take for granted (McShane, 2005). Antoniou and Souvignier (2007) reported that approximately 80% of students with learning disabilities have difficulty with reading, notably with comprehension of written text.

It is clear that every student wants to know the secrets behind reading comprehension. Many scholars have forwarded their suggestions; some of them are put here. In an effort to advance comprehension training, various theories have been suggested that propose methods to persuade understanding of the training of reading comprehension: schema theory, reader-response theory, and direct instruction (Klingner et al., 2007).

Hock & Mellard (2005) suggested that students require many skills in order to understand reading materials presented to them. Over the years, many strategy-driven interventions have been studied to determine whether they improve reading comprehension. According to Antoniou & Souvignier as cited in Hock & Mellard (2005), the use of cognitive and metacognitive techniques has been shown to be effective in increasing reading comprehension. They further emphasized the need for strategies that focus on developing decoding skills and reading fluency in conjunction with improving metacognitive strategies to increase the reading comprehension of individuals who have reading problems. Shuy et al. (2006) explained that metacognitive strategies provide students with ways to understand fully what they can read.

2.13. Training of Vocabulary Learning Strategies and Reading Comprehension

The researcher's personal experience tells him to some extent that students who are good at reading different texts are also good at vocabulary and those who are rich in vocabulary can understand reading passages easily. Regarding this point, Greenwood (2010) elaborates it as, there exists, then, ever-evolving recursive connections between vocabulary knowledge and reading comprehension. It's also a chicken-egg proposition; wide readers may have strong vocabularies because that they read widely, or they may choose to read widely because they have strong vocabularies. As several instructors of foreign language reading comprehension recommended, when their learners came across with a strange transcript in the foreign language the first difficulty appear to be its vocabulary (Grabe & Stoller, 1997). Grabe (1991) confirms that one of the most significant parts of study for reading comprehension is research in vocabulary development. He believes that the effect of large vocabulary knowledge is significant in reading comprehension.

Nation (2000) raises an important issue about 'crossing threshold' in relation with the effect of vocabulary knowledge on reading comprehension. He says that if a learner crosses a threshold, he/she will be successful in comprehending a reading text but if a learner doesn't cross a threshold, his/her probability of comprehending a reading text is low. Laufer (1989b), as cited in Nation (2000), found that the group that scored 95% and above on the vocabulary measure had a significantly higher number of successful readers (scores of 55% and above on a reading test) than those scoring below 95%.

For intermediate and advanced learners with vocabularies above 3,000 or so words, reading offers a portal of exposure to all remaining words. Even beginning students with a limited vocabulary can benefit from reading, by accessing graded readers (books written with a controlled vocabulary and limited range of grammatical structures) (Schmitt, 2000).

Few studies were conducted about the effect of vocabulary learning strategies training on reading comprehension. It is good to see the following recent studies. The first study by Naeimi & Foo (2013)A was conducted to study the effect of direct vocabulary learning

strategies on reading comprehension skill. It demonstrated that the direct group who utilized direct vocabulary learning strategies outperformed the control group. The second study by Naeimi & Foo (2013) B was conducted on the effect of indirect vocabulary learning strategy on reading comprehension skill on EFL Iranian learners. *t*- Test analysis revealed that there was a significant difference between the before and after instruction of indirect learning of vocabulary at intermediate level. So presenting the target vocabulary items in context and using indirect vocabulary learning strategies like the selected strategies make a remarkable difference in terms of overall performance for a particular group of student like intermediate level of students. The third study by Naeimi et al. (2013) was about the effect of cooperating with peers as indirect vocabulary learning strategy on reading comprehension skill. *t*- Test analysis revealed that there was a significant difference between the two groups learning vocabulary at intermediate level. In other words, cooperating with peers' strategy at intermediate level can lead to higher achievement of vocabulary storage in reading comprehension of intermediate level of Iranian EFL undergraduate students.

A lot was said about what test takers should expect on reading comprehension tests; some of them are mentioned below. Vancouver Island University (2015) mentioned recalling details/facts/information, understanding main ideas and making inferences as one should expect on reading comprehension tests. Educational Testing Service (2012) stated that the questions in the Reading Comprehension section Junior TOEFL test needs the ability to: comprehend the main idea of a text, identify important factual information that supports the main idea, make inferences based on what is not explicitly stated in a text, determine the meaning of unfamiliar words or expressions from context, identify the words that pronouns represent and recognize an author's purpose. There are also other scholars who put the requirements of reading comprehension test in detail. Hughes (2003), for example, identifies two types of skills which are essential for learners to consider during doing any reading comprehension test. The first one is macro-skills: scanning text to locate specific information, skimming to get the gist, identifying stages of an argument and identifying examples given in support of the argument. The second is micro-skills: using context to guess the meaning of unfamiliar words, identifying

references of pronouns and identifying relation between different parts of the text by recognizing indicators in discourse to understand the introduction, development and conclusion idea.

2.14. Vocabulary Knowledge

Knowing a word in a second or foreign language might be said to have the following main characteristics:

1. It means knowing how to use it productively and having the ability to recall it for active use, although for some purposes only passive knowledge is necessary and some words for some users are only ever known passively.
2. It means knowing the likelihood of encountering the word in either spoken or written contexts or in both.
3. It means knowing the syntactic frames into which the word can be slotted and the underlying forms and derivations which can be made from it.
4. It means knowing the relations it contracts with other words in the language and with related words in an L1 as well.
5. It means recognizing the comparative coreness of the word in addition to its more noticeable pragmatic and discursal functions and its style-levels.
6. It means knowing the various meanings linked with it and, often in an associated way, the variety of its collocational arrangements.
7. It means knowing words as element of or fully as fixed expressions suitably remembered to do again—and become accustomed—as the circumstance needs.
(Carter, 1998)

Nation (2000) also discusses the issue of knowing a word approximately the same way. He says that at the most general level, knowing a word involves form, meaning and use. Form is about how the word is pronounced, how the word is written and spelled and what parts are recognizable in this word. Meaning comprises of what meaning this word forms signal, what word form can be used to express this meaning, what is included in the concept and what other words does this make us think of. And the term ‘use’ consists of the patterns in which the word occurs, the words or types of words we must use with this one and where, when, and how often we can use this word.

Different scholars raise two important points regarding vocabulary knowledge: vocabulary breadth and depth. About vocabulary breadth; Daller et al. (2007) consider it as "...the number of words a learner knows regardless of how well he or she knows them" (p.7). In order to measure the lexical breadth knowledge in ELT, there are tests such as the Vocabulary Size Test (VST) known as Lex 30 (Meara and Fitzpatrick, 2000). Regarding vocabulary depth, Moghadam et al. (2012) state a more comprehensive definition, "Depth of knowledge is a network of links between words. It is about how they associate and interact with each other and may be restricted in use according to register and context." In order to measure the lexical depth knowledge, the Word Associates Test (WAT) (Read, 1998) has been widely utilized. So, after looking at the detailed characteristics, one can say that Carter (1998) & Nation (2000) gave above a definition about vocabulary depth.

2.15. Training of Vocabulary Learning Strategies and Vocabulary Knowledge

Concerning the use of training of vocabulary learning strategies to develop the vocabulary knowledge of English language learners, many scholars agree on its usefulness. Schmitt (2000) advises English language teachers that it is probably worth considering adding a vocabulary learning strategies component to a vocabulary program. He added that a teacher will not be able to teach all the words students will need, and even the input generated by extensive reading has its limitations; students will eventually need to effectively control their own vocabulary learning. But Schmitt warns that effective training must be tailored to a teacher's particular situation, taking into account the age, motivation, proficiency, and desires of his/her students. Finally he discusses that learners naturally mature into using different strategies at different times of their life, so it seems reasonable to introduce them to a variety of strategies and let them decide which ones are right for them.

There are some studies which show the effects of training of vocabulary learning strategies on learners' vocabulary development. One of these studies is the one conducted by Namaghi & Rajaei (2013). This study aimed at comparing the differential effect of vocabulary strategy training and traditional mode of presenting vocabulary. Student t-test

for independent and non-independent samples was used to analyze the data. The results showed that strategy training produced significantly higher results ($t=4.835$, $p=0.0001<0.05$).

The other study is done by Llamosas (2011). One of its objectives is to determine if there is a difference in the level of improvement accomplished by the experimental group, after the use of the “Vocabulary Improvement Program”, in comparison to the control group; through the application of the Post-Test to both experimental and control groups. The finding of the study indicates that the use of vocabulary teaching and vocabulary learning strategies, such as those presented in the VIP Program, increments the English vocabulary learning in beginner EFL students. The study recommends that although there are many vocabulary learning strategies which can be found in old and recently published books; the teacher must select appropriate strategies according to level, type of students and target vocabulary.

The third study was conducted by Banisaeid (2013) to compare the effect of memory and cognitive strategies training on vocabulary learning of intermediate proficiency group of Iranian learners of English as a foreign language. The results of the independent t-test shown that there is no significant difference between the effect of cognitive and memory strategy training on intermediate EFL learners’ word learning. But in general, the finding suggests that memory strategies training and cognitive strategy training respectively enhance learners’ vocabulary knowledge.

There was also a study conducted by Rasekh & Ranjbary (2003). The purpose of the study was to shed light on the issue of strategy training. They investigated the effect of metacognitive strategy training through the use of explicit strategy instruction on the development of lexical knowledge of EFL students. To reach the goal of the study two groups of EFL language learners at intermediate language proficiency level were randomly assigned to a control and an experimental group. Both groups received instruction on vocabulary learning strategies through a 10-week period of instruction. However, only the experimental group received metacognitive strategy training during the course of the semester. The training model used was based on the framework for

direct language learning strategies instruction proposed by Chamot & O'Malley (1994). The result of the study showed that explicit metacognitive strategy training has a significant positive effect on the vocabulary learning of EFL students.

2.16. Assessing Vocabulary Knowledge

Schmitt (2000) states there are no one common way of measuring one's vocabulary knowledge. But he appreciates Paul Nation (1990) test as "The closest thing we have is the Vocabulary Levels Test, first devised by Paul Nation (1990). Rather than giving a single estimate of total vocabulary size, it measures knowledge of words at four frequency levels: 2,000, 3,000, 5,000, and 10,000. It also has a special level for academic English words" (Schmitt, 2000, P.174). However, he criticizes the Checklist tests by Paul Meara alone and with one of his colleagues. These scholars have developed a book of pencil-and-paper checklist tests called the EFL Vocabulary Tests (Meara, 1992), a commercial computerized version called the Eurocentres Vocabulary Size Test (EVST) (Meara& Jones, 1990), as well as a series of single-level computerized tests called the LLEX tests (Meara, 1994). He further states, in the Checklist tests, Target words are presented on a list and learners are merely required to check if they know-them or not. Therefore, the subjects might overestimate their vocabulary knowledge and check words they really do not know.

The Vocabulary Levels Test produced by Schmitt et al. (2001) is adapted in this study. The Levels Test derives its name from the fact that separate sections measure learners' knowledge of words from a number of distinct frequency levels. In this way, it can provide a profile of a learner's vocabulary, rather than just a single-figure estimate of overall vocabulary size. The levels addressed are the 2000, 3000, 5000 and 10 000 frequency levels. In addition, there is a section for academic vocabulary.

The Vocabulary Levels Test states the following instruction to test takers:

This is a vocabulary test. You must choose the right word to go with each meaning. Write the number of that word next to its meaning.

Here is an example.

1 business

2 clock _____ part of a house

3 horse _____ animal with four legs

4 pencil _____ something used for writing

5 shoe

6 wall

You answer it in the following way.

1 business

2 clock 6 part of a house

3 horse 3 animal with four legs

4 pencil 4 something used for writing

5 shoe

6 wall

Some words are in the test to make it more difficult. You do not have to find a meaning for these words. In the example above, these words are *business*, *clock* and *shoe*. If you have no idea about the meaning of a word, do not guess. But if you think you might know the meaning, then you should try to find the answer. (Schmitt et al., 2001, p.82)

Moreover, a receptive vocabulary depth test was utilized because the above vocabulary breadth test was not adequate to have full understanding regarding the vocabulary knowledge of the learners. The Word Associates test which was selected by this researcher to be administered for the study purpose was the revised version of Read's (1998) Word Associates Test (WAT). It focused on the concept of word association, designed to measure two aspects of depth of vocabulary knowledge: (1) word meaning, particularly polysemy and synonym, and (2) word collocation. It comprises of eight

options within two boxes for each target word, four options in each box. The format of the test is given underneath.

Sudden

| | | | | | | | | |
|-----------|-------|------------|--------|--|---------|--------|--------|-------|
| Beautiful | quick | Surprising | school | | thirsty | change | doctor | noise |
|-----------|-------|------------|--------|--|---------|--------|--------|-------|

To answer the above question, test takers are expected to choose four words from the two boxes, which relate to the target word “sudden”. The words in the left box may help explain the meaning of the target word, while the words in the right box can collocate with the target word. In the above example, there are two correct answers in the left (quick and surprising) and two in the right box (change and noise), but in other items of this test, there may be either one in the left or three in the right box or vice versa.

The Webster Third Vocabulary Test measures vocabulary size up to 50,000 word families, which is a number practically impossible to reach, since the vocabulary size range of most university educated English native speakers is 13,200- 20,700 word families (Goulden et al., 1990).

Productive vocabulary breadth tests generally measure the number of words that test-takers can generate in writing. Laufer & Nation (1995, 1999) created active versions of the Vocabulary Level Tests (VLT), which purport to measure productive vocabulary breadth or size. Test-takers are prompted to fill in the blanks to finish a word, whose first letters are given.

Tests on L2 vocabulary knowledge have often focused on one sub-knowledge such as comprehension of meaning (Nation, 1983), production of meaning (Laufer & Nation, 1999), vocabulary use (Laufer & Nation, 1995) or word associations (Read, 1993), and learners’ depth of vocabulary knowledge (Paribakht & Wesche, 1997).

2.17. Assessing Reading Comprehension

Grabe & Jiang (2014) state the trends of international reading standard tests as follows. The depiction of reading abilities, developed in the past two decades, has also led to a reconsideration of how to assess reading abilities within well recognized assessment constraints. It has also led to several innovations in test tasks in standardized assessments. This trend is exemplified by new revisions to the Cambridge ESOL suite of exams, the IELTS, and the iBT TOEFL. The Cambridge ESOL suite of exams (KET, PET, FCE, CAE, CPE) has undergone important changes in its conceptualization of reading assessment. As part of the process, the FCE, CAE, and CPE have introduced reading assessment tests and tasks that require greater recognition of the discourse structure of texts, recognition of main ideas, careful reading abilities, facility in reading multiple text genres, and a larger amount of reading itself. Reading assessment tasks now include complex matching tasks of various types, multiple choice items, short response items, and summary writing (once again).

IELTS (the International English Language Testing System) similarly expanded its coverage of the purposes for reading to include reading for specific information, reading for main ideas, reading to evaluate, and reading to identify a topic or theme. Recent versions of the IELTS include an academic version and a general training version. The IELTS academic version increased the amount of reading required, and it includes short response items of multiple types, matching of various types, several complex readings with diagrams and figures, and innovative fill-in summary tasks.

The iBT TOEFL has similarly revised its reading section based on the framework of reader purpose. Four reading purposes were initially considered in the design of iBT TOEFL reading assessment: reading to find information, reading for basic comprehension, reading to learn, and reading to integrate, although reading to integrate was not pursued after the pilot study. iBT TOEFL uses three general item types to evaluate readers' academic reading proficiency: basic comprehension items, inferencing items, and reading-to learn items. Reading to learn has been defined as "developing an organized understanding of how the main ideas, supporting information, and factual

details of the text form a coherent whole” for which two new tasks, prose summary and schematic table, were included. In addition, the iBT TOEFL uses longer, more complex texts than the ones used in the traditional TOEFL.

2.18. Instruments for Identifying Students’ Language Learning Strategies

Oxford & Crookall (1989) review the instruments which were used, by various researchers, to identify learners’ language learning strategies. Their review of the studies is presented under here.

A. Making lists: LLS lists are often based on observations - either "armchair observations" or more scientific ones--and intuitions or hunches. Meaningful observations of LLS use in the classroom are possible for certain kinds of observable strategies (e.g., cooperating with peers, asking questions for clarification or verification, and gesturing to convey meaning), but not for other techniques, such as strategies that remain private or invisible (e.g., associating/elaborating, using imagery, and guessing intelligently). These strategies cannot be observed directly, but they can be intuited by the researcher, and they can also be assessed through various self-report techniques.

B. Interviews and thinking aloud: Instead of observing or intuiting, some researchers have asked the learner to explain or describe how he or she uses strategies. One way to do this is to interview learners; another is to listen to learners as they think aloud; yet another is to combine the two procedures.

C. Note taking: Several LLS studies have involved note taking. Sometimes note taking helps learners prepare for strategy-assessment interviews. Allwright's note-taking scheme (not necessarily connected with an interview) asks students to take notes on a grid, describing the strategies they employ; students then rate those strategies in terms of frequency, enjoyment, usefulness, and efficiency.

D. Diary studies: Another form of self-disclosure, diaries or journals allow learners to record their thoughts, feelings, achievements, problems, strategies, and impressions. While keeping diaries to study their own language learning, students become "participant observers" in their own ethno- graphic research. Diaries are usually subjective and free-

form, although they can be guided by teacher suggestions. Some language learning diary studies have focused on psychological and social themes. Bailey and Ochsner as cited in Oxford & Crookall (1989) suggested ways to shape diary studies to make them suitable as research documents.

E. Survey studies: Many LLS researchers have employed surveys or questionnaires, which typically cover a range of strategies and are usually structured and objective in nature.

Macaro (2001) also discusses in detail the above mentioned and some other tools utilized by researchers to gather data about students' language learning strategies. He puts the strengths and limitations of each instrument besides the well-known studies in which these tools were employed.

➤ **Diaries** can also be used for very specific aspects of the learning over a period of time. For example, you could ask your students to keep a diary of how they revise or recycle their language learning over, say, three months. The danger with this type of approach is that it risks being interventionist. The very fact that you have asked them to keep a track of their revision process suggests to them that this is precisely what they should be doing. Unless you are very careful in the way that you set up a diary activity, you will not be getting a true picture of what they do normally. Of course, this is a perfectly appropriate approach to take once you have decided to embark on a program of strategy training. An example of a learner diary is one given to 17-year-old advanced students of French and German by Graham (1997) in which she asked them to enter data under the following headings:

- Activity and situation (in class/outside class):
- Things I found easy/things I found difficult:
- How I dealt with the task:
- What have I learned/what have I achieved?:
- How do I feel?:
- What should I do now?:

- **Questionnaires** have been used in other studies to find how strategy use varies among different groups of learners. For example, 'independent variables' such as sex, age, level of language learning (or number of years of language study), ethnic or cultural background, social group - all these can be included in a questionnaire in order to see if they have an effect on the types and frequency of strategies used. An example of this type of study is the very large-scale one carried out by Oxford and Nyikos (1989) with university students. Questionnaires can be used to make comparisons between different aspects of language learning, for example, reading and listening or indeed between L1 strategies and L2 strategies. Carrell (1989) as cited in Oxford and Nyikos (1989) used a questionnaire to ask students what their strategies were when they were doing silent reading, particularly their metacognitive strategies, in order to establish whether her readers read differently in their first and second languages. Finally, questionnaires have been used to gauge whether strategy use has changed over a period of time, particularly if it changed due to a period of learner training in the use of strategies. In the writing strategies project Macaro (2001) used such an approach where the 14-15- year-old students were given a 'pre-treatment' questionnaire (before strategy training) and a 'post-treatment' questionnaire (after strategy training).

- **Interviewing:** language learners about the way that they use strategies can be very productive and an excellent way of complementing a questionnaire. Of course it takes a long time to interview a whole class, let alone all your classes. But there are ways of reducing the onerous nature of this task. You can choose a selection of students to interview, perhaps two of those you consider most successful at language learning, two least successful and two in the middle. Or you can divide your class into groups of, say, six and carry out a more informal discussion with them about their strategy use. It is always useful to record the interviews or conversations even if you only have time to listen to them in a fleeting manner later. It is difficult to take notes when you are conducting an interview or chairing a discussion.

- The advantage of **group discussions** is that you get a lot of interaction because they tend to feel more comfortable and they are more likely to react to each other's ideas. One of the disadvantages is that, particularly with adolescent learners, they may be pressurized by their peers into not telling you what they really do.
- **Interviews** have been used in different ways in the quest for strategy use elicitation. Suzanne Graham used a 'semi-structured retrospective' interview technique (Graham, 1997) to elicit the strategies used by 17 year olds when carrying out a listening task. Semi-structured refers to the extent to which your interview questions are 'fixed' in your mind or on your interview prompt sheet and to what extent you allow your interviewee to diverge into other areas. A semi-structured list has a number of general questions you want answered but if the diverging route looks like a useful one to follow, you allow the respondent to proceed down it, perhaps bringing him/her back to your own line of questioning when the topic you have discussed feels as if it has been fully explored. Retrospective, here simply means that they were asked to think back to every time they did a listening task and try to articulate their strategies. One problem with this is that the more learners become distanced from the actual language learning task, the more they are likely to become inaccurate in reporting how they went about the task.
- **Task-based self-report:** In a task-based self-report, the learners are still telling you what they do in order to carry out the task but this time it is temporally more directly linked to the strategies used, as they are being used. We are still not observing or hearing the strategies themselves but they are being reported sufficiently contemporaneously such that we are surer that these were the strategies that were actually being used. By way of illustration we could say that there is a difference between the three (hypothetical) self-reported strategies below.
- **Observing the learners Think-aloud protocols:** Let us think about think-aloud protocols just a little more and in particular how we can ensure that we get the best information out of them. The normal procedure for eliciting the data from a think-aloud protocol is to take the following steps:

1. Provide a student with a task (usually a reading or writing task) and ensure that they understand what they have to do to accomplish it.
2. Find ways of making them feel at ease.
3. Explain that you want them to articulate their thought processes and the strategies that they use while they are actually carrying out the task.
4. Demonstrate how this thinking-aloud process can be done by doing some of it yourself (with a similar task).
5. Start recording.
6. Start the student off.
7. Prompt the student if they are not articulating their thoughts and actions sufficiently.
8. Prompt but avoid using phrases like 'Are you sure?' and 'That's good'. Instead, use only phrases like: 'What makes you say that?'; 'What made you do that?'; 'What are you thinking at this moment?'; 'Please keep talking'.
9. Listen to the recording of the think-aloud process (after the session) and make a list of all the strategies used by the student.
10. Look carefully through the results of the task (after the session). What features of it might have been improved by better (or more frequent) strategy use?

➤ **Looking for traces:** Although the following may not be as scientific and comprehensive as the above techniques, they do offer the busy teacher an opportunity to make a start with thinking about how their learners are learning. For each of the following it is advisable, at the very least, to take down some notes (field notes as they are sometimes called) during or after the lesson, about what the students appear to be doing to help themselves learn. In this way some sort of systematic pattern may start to emerge.

1. When engaged in questioning sequences we can observe which students are moving their lips which might be an indication that they are preparing themselves to speak by practising under their breath.
2. When engaged in questioning sequences we can observe to what extent and which students are 'buying processing time' by using such markers as 'uh' or

'well' or other discourse markers designed to show that they wish to keep their turn.

3. When engaged in any activity which involves students speaking we can observe to what extent they are employing the compensation strategy of circumlocution (finding alternative ways of saying something they don't know how to say) and the positive or negative effects that this has.
4. When presenting new language we can look around the class to see which students are taking notes of what is being said or written.
5. We can observe which students are asking a friend for help when they don't understand and in general which students like to collaborate in their language learning.
6. When speaking with written support (e.g. a dialogue, role-play or jigsaw activity), we can observe which students are sounding out words before saying them and to what extent this is helping or hindering their transition from graphic medium to oral medium.
7. When attempting a group reading comprehension (or collaborative reading task), we can observe which students are reasoning by deduction ('it must mean this because of this').
8. When attempting a listening comprehension 'feedback session', we can identify which students are focusing on every word rather than the gist and the positive or negative effect that this is having. In addition we can, from time to time, enlist the help of a colleague or assistant by asking them to stand behind the students and note which sections of a recorded text they are having difficulty with.
9. When we have asked students to carry out a writing task, we can observe how many students plunge straight into the activity and which students spend some time planning their work.
10. In a reading or writing task we can observe which students use the dictionary and with what frequency.

2.19 Vocabulary Learning Strategies Questionnaire

Researchers proposed to examine and categorize VLSs and operationalize them through questionnaires from different lenses. The first way of categorizing VLSs and constructing a questionnaire was based on the observation of learners. In this line of research, Sanaoui (1992) developed a semi-structured VLS questionnaire consisting of five aspects: 1) the amount of time spent on independent study; 2) the range of self-initiated learning activities; 3) the extent to which students make records of words; 4) the extent to which students review learnt words; 5) the extent to which they practice using those words. This categorization was based on the view that vocabulary learning strategies should be conceptualized as learners' observable behaviors. As such, it has ignored those mentally oriented strategies, such as inferencing or monitoring.

Another kind of classification was mainly based on the categorizations of LLSs, which conceptualizes strategies as both learners' mental activities and behaviors. In line with the categorization proposed by Gu & Johnson (1996); O'Malley & Chamot (1990) categorized VLSs as metacognitive and cognitive strategies, with the former embracing selective attention and self-initiation and the latter involving inferencing, using dictionary, note-taking, rehearsal, encoding, and activation strategies, all of which were further subcategorized. Gu & Johnson's VLS questionnaire is relatively comprehensive as it includes both mentally-oriented strategies and behavior-based strategies. Nevertheless, there are still some caveats inherent in this VLS questionnaire. Firstly, it emphasizes strategies for learning the meaning of new words, with only one group of strategies (i.e. activation strategies) and a few in other groups for learning how to use a word.

However, word knowledge is multi-dimensional involving three interconnected facets – form, meaning and use of the word in both receptive and productive learning processes (Nation, 2001). For this reason, a comprehensive questionnaire of VLSs is expected to cover the strategies for learning the form, meaning and use of words in receptive and productive processes. Secondly, Gu & Johnson (1996) used the 7-point scale from Extremely Untrue of Me (1) to Extremely True of Me (7), which seems to emphasize the

extent of the correspondence between the learner and the item. Nevertheless, most of the items in the questionnaire may turn out to be ambiguous for students making the elicited response unreliable. As an example, in the item “I make use of the grammatical structure of a sentence when guessing the meaning of a new word”, students may be confused to discern whether the 7-point scale means how frequently the strategy is used or how well it is used. Therefore, it may probably result in different interpretations by the participants resulting in unreliable data.

Schmitt (1997) conceptualized vocabulary learning strategies as those factors which occur and affect the learning process. From this perspective, Schmitt (1997) categorized VLS questionnaire into two main categories: strategies for discovering a new word’s meaning (discovery strategies) and strategies for consolidating a learnt word (consolidating strategies). Premised on Oxford’s (1990) categorization of LLSs, Schmitt (1997) further categorized discovery strategies into determination and social strategies, and categorized consolidating strategies into social, memory, cognitive and metacognitive strategies. Likewise, Fan’s (2003) VLS questionnaire encompasses nine categories: management, using sources, guessing, using dictionary, repetition, association, grouping, analysis, and known words, which described the vocabulary learning process in a more specific way.

2.20 Vocabulary Learning Strategies and Vocabulary Strategies Use

Tacač (2008) explains the benefits of vocabulary strategy instruction for students’ vocabulary strategy use improvement as: more or less all studies in question imply that learners possess some form of vocabulary learning strategies inventory, but they do not make a systematic use of it, and therefore are in need of instruction. Nation (2001) sees the usefulness of strategic training in the fact that most of vocabulary learning strategies can be applied in learning various lexical units (e.g. collocations) and in all learning stages). It has been suggested that learning strategy instruction may help learners in three ways: firstly, learning strategies instruction can help students to become better learners, secondly, skill in using vocabulary training strategies assists them in becoming independent and confident learners, and finally, they become more motivated as they

begin to understand the relationship between their use of strategies and success in learning languages (Chamot & Kupper, 1989; Chamot & O'Malley, 1994).

Lai (2013) found that vocabulary learning strategy training can bring about positive effects in students learning, as the majority of the participants reported using a greater number of strategies, using strategies more frequently, and found that such use of strategies was more useful. The most striking result to emerge from the data is that strategy training resulted in a radical increase in the frequency of low-level students' strategy use. Banisaeid (2013) also found that cognitive and memory strategies trainings play an important role on making learners more autonomous in using different kinds of vocabulary strategies.

2.21. Theoretical Framework

As far as this researcher was concerned, studies gave credit to cognitive theory for the issue of language leaning strategies. Since vocabulary learning strategy training is the major topic of this study and it emanates from the general language learning strategies, the theoretical framework of this research is cognitive theory. The cognitive theory of learning (Anderson, 1985) provides this approach and lays the foundations for the theoretical framework behind language learning strategies. The cognitive theory of learning indicates that learning is an active and dynamic process. It is based on an information processing view of human thought and action. There are two fundamental principles underlying this theory. These are: behavior can best be explained by reference to how individuals perceive and interpret their experiences and the way in which individuals think and reason parallels the manner in which computers process information (Anderson, 1985).

Cognitive theory of learning argues that people acquire proficiency in an L2 in the same way that they acquire other complex cognitive skills and considers learning strategies very important. Cognitive theory does not make a distinction between linguistic knowledge and its use, suggesting that language is stored and retrieved from memory in the same way as other kinds of information, and thus is guided by the same principles as other types of learning, although often more complex ones (Ellis, 1995). Cognitivists are

interested in the ways individual learners approach learning and, therefore, they pay much attention to learners' individual differences, such as learning aptitude, motivation, cognitive style, and learning strategies. Bialystok's (1978) Analysis–Control Model of SLA defines strategies as methods learners choose to increase their proficiency in the L2. Bialystok (1978) distinguishes between two groups of strategies: (1) formal learning strategies that involve conscious learning and practicing of accurate linguistic forms; and (2) functional strategies used during communication in the L2.

The interest offered to language learning strategies seems the result of a change from teacher centered approach to learner-centered approach. Attention in VLS is equivalent to a shift from a chiefly teaching- focused viewpoint to one that incorporates concentration in how the actions of students might affect their language learning (Schmitt, 2000). Learning strategies are either behavioral thus observable, or mental then not observable. They could be either general approaches or particular actions or techniques adopted to study a Target Language (TL). Learners usually know what approaches or techniques they have employed in language acquisition, regardless some subconscious activities under certain circumstances. Researchers define language learning strategies in slightly different ways, causing a debate about whether they are physical or mental, conscious or subconscious, and problem- or goal-triggered (Liang, 2009).

As findings of the research within the field of vocabulary acquisition and vocabulary learning strategies reveal, strategic teaching is one of the four basic approaches to vocabulary teaching (Coady, 2000), the other three being learning from context (i.e. without explicit instruction); vocabulary learning strategies development plus explicit instruction (stressing explicit teaching at beginning levels and development towards contextualized learning); and teaching through practical classroom activities (with no particular methodological foundations). The supporters of a strategic method to vocabulary teaching, for instance Oxford and Scarcella (1994) states explicit strategy training is vital in vocabulary study. It is necessary, they emphasize, to set up seldom de-contextualized activities as a supplement to wide disclosure to language input, because large amounts of vocabulary cannot be acquired in a short time through language skills only. This observation is especially true for advanced learners. Long-term retention of

vocabulary presupposes appropriate strategic support. Besides, by acquiring a repertoire of strategies, learners become independent learners able to expand their own vocabulary and meet their own vocabulary needs.

Regarding the process of information, O'Malley & Chamot (1996) discusses four-stage encoding process involving selection, acquisition, construction and integration. In the first stage, selection, learners focus their interest on specific information which they transfer first into the working memory and then, in the acquisition stage, into the long-term memory for permanent storage. In the third stage, learners actively build internal connections between ideas in the working memory and the long-term memory by making use of related information. In the final stage, integration, learners actively search for prior knowledge in the long-term memory and transfer this knowledge into the active memory.

Cognitive psychologists tend to see second/foreign language learning as the building up of knowledge systems that can eventually be called on automatically for speaking and understanding. At first, learners have to pay attention to any aspect of the language that they are trying to understand or produce. Gradually, through familiarity and exercise, learners become able to use certain parts of their knowledge so quickly and automatically that they are not even aware that they are doing it. This frees them to give attention to other aspects of the language that, in turn, gradually become automatic (McLaughlin, 1987). Thus, learning strategies are particular methods of dealing out information that strengthen understanding, study, or retention of the information (O'Malley & Chamot, 1990).

Interlanguage theory (Selinker, 1972) is the first SLA theory that describes the language acquisition process not only from a linguistic perspective, but also from a cognitive one. The theory distinguishes between learning strategies and communicative strategies. Interlanguage (a language system created by a language learner in the process of L2 acquisition) is seen as the product of several cognitive processes: the processing of L2 input, native language transfer, learning mechanisms, and learning strategies, communication strategies, and overgeneralization of linguistic material. This theory pays attention to learners' conscious attempts to control their learning, and learning strategies

are seen as one of the underlying components of inter-language formation. Besides, as Tacač (2008) argues, such cognitive processes as language transfer and overgeneralization of linguistic material can also be called learning strategies. Griffiths (2003) argues that inter-language theory, along with cognitive theory, has encouraged subsequent research on discovering learning strategies.

Another cognitive model of SLA, Anderson's (1983) Adaptive Control of Thought Model, states that learning begins from declarative knowledge that becomes procedural through practice by a three-stage process: cognitive, associative, and procedural. Learning strategies are seen as cognitive skills that are used consciously at the beginning of learning, and then become proceduralized and are used automatically. McLaughlin's (1987) Information Processing Model argues that the automatization of language skills and the development of interlanguage involve the use of learning, production, and communication strategies. This classification of strategies is also accepted by Ellis (1995) in his model of L2 acquisition. In this model, the choice of learning strategies is based on individual learner differences, as well as on situational and social factors.

It can be seen that researchers who adopt cognitive approaches recognize the significant role of learning strategies in the process of L2 acquisition. Many scholars (Anderson, 1983; Ellis, 1995; McLaughlin, 1987; O'Malley & Chamot, 1990; Skehan, 2000) agree that L2 acquisition is similar to learning of other complex cognitive skills, but different from L1 acquisition. Among other factors, the use of learning strategies makes L2 acquisition different from L1 acquisition. Learning strategies affect the L2 acquisition process and can be partially responsible for successful language acquisition.

Scholars of sociocultural theory (Lantolf, 2000; Vygotsky, 1978) insist that learners' strategies are not only cognitive skills, but are also the result of the mediation of particular learning communities. The development of learning strategies is closely connected with the socialization process understood as participation in specific social, historical and cultural contexts. Strategies are developed as a byproduct of the process of socialization (Donato & McCormick, 1994). Social life is seen as central to the problem of a learner's strategy development and use. The language classroom, like any other

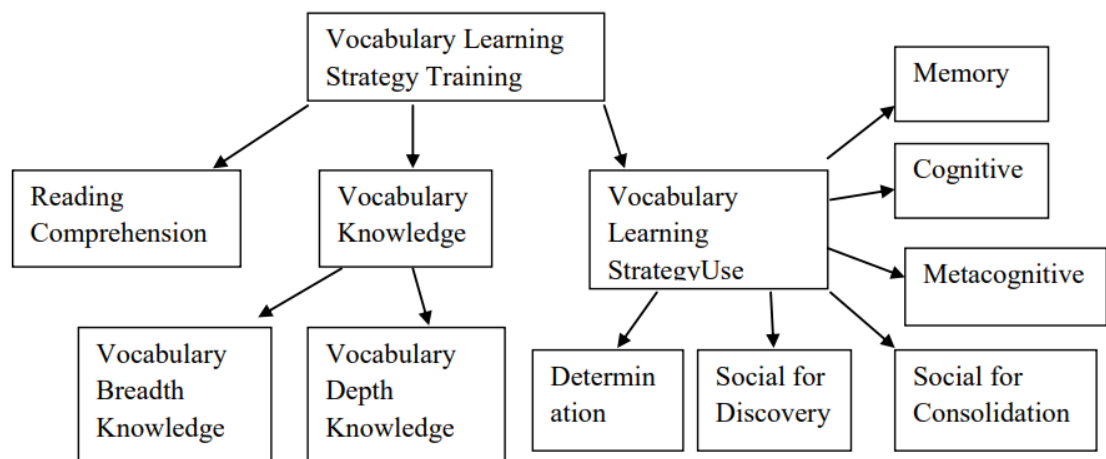
culture, is also the place where students learn to participate in the values, beliefs and behaviors of this community of practice. Mediating context (language environment and language discourses), mediating agents (teachers, friends, or partners), and mediating objects (assessment) can all influence learners' strategy choices (Gao, 2006).

All of these L2 teaching and acquisition theories and approaches have had their influence on the development of the idea of language learning strategies, and most of them agree that at least part of language learning outcomes can be explained by the use of various learning strategies. Language learning strategy theory has the potential to be an important component of a variety of SLA theories and approaches.

2.22 Conceptual Framework

The following conceptual framework illustrates the relationship between the independent variable (vocabulary learning strategy training) and the dependent variables (reading comprehension, vocabulary knowledge and vocabulary learning strategy use). In addition, sub-variables are also incorporated under the dependent variables of vocabulary knowledge and vocabulary learning strategy use. This diagram clearly depicts the objectives and structure of the study in general.

Figure 1: Conceptual Framework of the Study



2.23. Summary of the Literature Review

In this chapter, an attempt was made to clarify in detail issues related to the objectives of this study. The literature review begins from autonomous learning that strategy learning originated from; it is related to self-study options that help learners overcome the communications barrier they face outside the classroom. Then, it discusses learning strategies; the researcher of this thesis inferred that learning strategies are techniques used by learners to understand the subject matter they are taught in the classroom or outside the classroom and attempts to let the concepts they have learned easily unforgettable. Specifically, language learning strategies are best techniques which are used to make language learning simpler. Moreover, classifications of language learning strategies by different scholars are stated. One of the well-known classifications is offered by Oxford (1990). She classifies LLSs into two major categories: direct strategies for dealing with language and indirect strategies for general management of learning. Direct strategies directly consist of the target language and are grouped into three groups: (1) memory, (2) cognitive, and (3) compensation strategies. Meta-cognitive, affective and social strategies are classified under the indirect group.

After putting the definition of vocabulary as a word or words of a certain language, that may be a single word or several words of a phrasal verb or idiomatic expression, which hold one specific meaning; an effort is made to place well-known classifications of vocabulary learning strategies. One of these well-known divisions is offered by Schmitt (1997), which is used as a bench-mark of this Ph.D. dissertation: determination strategies, social strategies, memory strategies, cognitive strategies and meta-cognitive strategies. Before discussing vocabulary learning strategies training; attention is given to what language learning strategies training is, the rationale for language learning strategies training, models for language strategy training, options for providing language strategy training and language strategy training materials. More particularly, studies with contradicting results (positive and negative) on the effects of vocabulary learning strategies training on vocabulary development are presented. All these conflicting research results indicate that many more researches are needed regarding training on vocabulary learning strategies. In addition, how vocabulary is best learnt and taught is

included in the literature review. Further, the need for vocabulary strategy training and the steps to be followed in the training are incorporated.

Other key topics of this research are vocabulary knowledge and reading comprehension. Knowing a word involves form, meaning and use. Form is about how the word is pronounced, written, spelled and what parts are recognizable in this word. Meaning comprises of what meaning this word forms signal, what word form can be used to express this meaning, what is included in the concept and what other words does this make us think of. And the term 'use' consists of the patterns in which the word occurs, the words or types of words we must use with this one and where, when, and how often we can use this word (Nation, 2000). Reading comprehension is the process of constructing meaning by coordinating a number of complex processes that include word reading, word and world knowledge, and fluency (Klingner et al., 2007).

Finally, issues such as assessing vocabulary knowledge, assessing reading comprehension, vocabulary learning strategies questionnaire and attitude in language learning are included in the chapter with due emphasis. Moreover, theoretical framework and conceptual framework of the study are clearly discussed.

CHAPTER THREE: METHODOLOGY OF THE STUDY

3.1. Introduction

This unit deals with the research design and methodology employed in this thesis. Specifically, the research design, sampling technique, steps of the strategy training, data collection instruments, data collection procedure and methods of data analysis are discussed.

3.2. Research Design

As a research design, quasi-experimental research design was employed in the study. Quasi-experiments are most probably carried out in field situations in which random assignment is challenging or unmanageable. They are often carried out to examine the efficiency of a treatment, possibly a type of psychotherapy or an educational intervention (Price et al., 2015). In like manner, the researcher thought that conducting a true-experiment in Addis Ababa University classrooms were challenging and unmanageable because assigning randomly students to the conventional group and treatment group disrupts the natural classroom setting and it affects other courses. Hence, to keep the natural setting and to avoid undesired school environment confusion of the students, quasi-experiment is preferred over true-experiment.

In this research, an attempt was made to see the effect of vocabulary learning strategies training on reading test scores, vocabulary knowledge and vocabulary learning strategies use. Rogers & Revesz (2019) state that experimental and quasi-experimental research designs investigate if there is a causative association among independent and dependent variables. They also discuss, in another expression, the independent variable is the variable of effect and the dependent variable is the variable that is being affected. Likewise, in this dissertation, the independent variable (the intervention) is the training on vocabulary learning strategies and the dependent variables are reading test scores, vocabulary knowledge and vocabulary learning strategies use.

Another feature of experimental and quasi-experimental research designs are having control group and experimental group. “The researcher assigns intact groups [-] the

experimental and control treatments, administers a pretest to both groups, conducts experimental treatment activities with the experimental group only, and then administers a posttest to assess the differences between the two groups” (Creswell, 2012, p.31). However, in this research the focus is to examine the effect of the intervention on the treatment group. To see the effect of the training in relation to the instruction given in communicative English, a group was included in the study as additional source of information to assess the effectiveness of vocabulary strategy training. Similarly in this research, both the conventional group and the treatment group sat for pre-tests and post-tests of reading comprehension and vocabulary knowledge. In between the pre-tests and post-tests, vocabulary learning strategy training was offered to only the treatment group. At the end, the results of the two groups were compared.

As part of the quasi-experiment, questionnaire was also employed. The questionnaire answered the fourth research question.

All the four specific objectives of this research were addressed quantitatively- by tests and questionnaire. Therefore, the paradigm employed in this study is called realist (positivist). Muijs (2004) states that the quantitative interpretation is explained as actuality ‘realist’ or at times ‘positivist’; whereas, the global perspective regarding qualitative research is observed as being ‘subjectivist’ He further explains about realist or positivist paradigm as realists receive the analysis that what research does is disclosing an accessible reality. The truth is already found in the real world and it is the work of the researcher to employ objective research methods to reveal that truth. This means that the researcher is supposed to be as disconnected from the research as possible, and employ methods that increase objectivity and decrease the participation of the researcher in the study. This is effectively conducted using methods gained largely from the natural sciences (e.g. biology, physics, etc.), which are then applied to social research settings (like education). In relation to positivism, the globe functions per fixed laws of cause and effect. Scientific thinking is utilized to test theories about these laws, and either reject or temporarily accept them. In this way, we will finally get to comprehend the fact about how the world functions. By developing trustworthy measurement instruments, we can objectively study the physical world.

3.3. Procedures of the Experiment

3.3.1. Producing the training and training material to the experimental group

The training which was offered to the treatment group employed Oxford (1990) model. This model was chosen because the author is a pioneer in researching on the issue and putting clearly the logical ways of strategy training. She recommended the following steps to be followed while instructing language strategy.

1. Determine the learners' needs and the time available.
2. Select strategies well.
3. Consider integration of strategy training.
4. Consider motivational issues.
5. Prepare materials and activities.
6. Conduct "completely informed training."
7. Evaluate the strategy training.
8. Revise the strategy training. (Oxford, 1990)

Taking into account the recommendation of the above author, the researcher of this thesis also meticulously followed each step.

First, the researcher identified the learner's objective needs and the available time. While he was offering Communicative English I course, he identified that the students faced challenges in understanding the meaning of several words and responding to reading comprehension questions. Moreover, he knew that they were first year regular students who joined Addis Ababa University after they scored a pass mark in the national grade 12 school leaving examination. The researcher also identified that the Communicative English Skills I module they were using as a textbook at the time includes very few vocabulary learning strategies. It explicitly states an explanation of only one vocabulary learning strategy, that is, identifying dennotative and connotative meanings. However, it incorporates only 9 strategies in task form and explanation is not provided. These are the strategies that Communicative English Skills I Module consists of.

- Using part of speech to remember the meaning of a word
- Remembering the meanings of words by focusing on the prefixes, the root words and suffixes
- Using new word in sentences
- Discovering new meaning through group work activity
- Writing word lists with their meanings
- Connecting the word to its synonyms and antonyms (Similarity or opposite)
- Guessing from textual context (by looking at the words that appear before and after a new word)
- Analyzing affixes (prefix and suffix) and roots
- Analyzing part of speech (e.g. noun, verb, adverb, adjective...)

The researcher of this dissertation also identified that the students had enough time to receive vocabulary learning strategy training. They were taking 6 courses, 30 ECTS (18 class contact hours per week), in the first semester of first year. Hence, getting 2 hours training time per week was not challenging. Because of the above two reasons, the author believed that they need to take a training in vocabulary learning strategy so that they could improve their vocabulary knowledge and reading comprehension skills, as recommended by experts in the field.

Second, the strategies that were incorporated in the training material of the students were meticulously chosen. As far as this researcher was concerned, there are two most commonly used taxonomy of vocabulary learning strategies authored by I.S.P. Nation and Norbert Schmitt. The researcher of this thesis preferred Schmitt, for he believed that his taxonomy is detailed and simple to understand for the trainees. The researcher also thought that the strategies are generally useful and can be applied to various language conditions and activities. Thinking that they are not common at university level, three strategies which are related to flashcards were cut out. Of course, the strategies were adapted and made more simple to suit the understanding level and culture of the

students. Schmitt's (1997) Vocabulary Learning Strategies Questionnaire (VLSQ) was also employed as data gathering instrument. Therefore, it was appropriate to use the strategies as an intervention mechanism, for the participants completed the questionnaire before and after the training so that the changes they brought was easily identified.

Third, an attempt was made to integrate the tasks and objectives of the vocabulary learning strategy training material with Communicative English Skills I module. The training was offered as part of Communicative English Skills I course. It was also tried to create significant meaningful context in the training.

Fourth, to motivate the trainees, they were told that there were supposed to take quizzes and sign on an attendance sheet in every class so that at the end of the semester the results of the quizzes and the attendance were changed to letter grade. Moreover, to motivate the students, an explanation was given about the usefulness of vocabulary learning strategy study for general language improvement.

Fifth, a well-researched vocabulary learning strategy training material was produced. The material includes 49 pages, excluding the references and appendices. It has cover page, general objectives, two units, answer key, references and appendices of the General Service List and Academic Word List. Each of the 16 lessons incorporates objectives of the lesson, explanation of the strategies, examples of the strategies and exercise.

Sixth, an effort was made to offer a complete informed (explicit) training as research suggests it is more effective than implicit strategy training. First, the participants were asked to comprehend each strategy by themselves, explain it to the class and apply the strategy by themselves. Then the trainer (the researcher of this study) offered explanation and demonstration of the new strategy. Finally, the trainees were asked to transfer the strategy to other task.

Seventh, the strategy training was evaluated in two ways. The first way was through the comparison of the pre and post vocabulary learning strategy questionnaires the participants filled in. The other was the participants were asked to comment the change they brought regarding the vocabulary strategy use after receiving the training.

Eighth, concerning the revision of the strategy training, the researcher got good experience that he would use the experience to revise the training material and the method of the training in his future studies and his teaching career.

The researcher of this research served as an instructor and handled both the treatment and conventional groups of the pilot study because the researcher believed that the training would be effective when it was offered by the person that was studying about the issue instead of training other instructors and let them give the training. Besides, only the researcher offered the training both to the conventional and treatment groups to avoid the influence of extraneous variables that may appear because of the trainers' difference (regarding ability, gender, classroom management...).

The vocabulary learning strategy training was offered for 8 hours in 8 consecutive weeks as a pilot study and for the main study. It was offered for 16 hours in 8 successive weeks. Each session lasts for 2 hours. The time allocated for the training during the pilot study was not enough to cover the training material. Taking lesson from the pilot study and from the experience of other previous studies, the researcher allotted 16 hours, for the training in the main study, which was enough to effectively train the students.

The vocabulary strategy training material was produced by integrating the vocabulary lessons incorporated in Communicative English Language Skills I module and the vocabulary learning strategies identified by Schmitt (1997) and renowned vocabulary books of various authors such as Oxford (1990), Nation (2001), Carter (1998) and Takač (2008).

3.3.1.1 The contents of vocabulary learning strategies training material

The training material has 49 pages, excluding the references and appendices. It begins with the cover page entitled as 'Vocabulary Learning Strategies Training Material for First Year Students'. The cover page also includes date, the writer's name and address. The second page comprises the table of contents incorporating general objectives of the training material, the two units' topics and subtopics, answer key for the instructor, references and appendices.

The general objectives of the training material are stated as follows. After the completion of this training, learners will be able to:

- discover the meaning of words by guessing from their structural knowledge of the words
- recognize how to interact with other people to improve their vocabulary knowledge
- identify how to relate the word to be retained with some previously learned knowledge
- recognize the strategies of repetition and using mechanical means to study vocabulary
- decide which words are worth studying
- choose the most efficient methods of vocabulary study
- test themselves on vocabulary knowledge to measure improvement

The main topic of unit one reads as: strategies for the discovery of a new word's meaning. The sub topics includes: analyze parts of speech, social strategies- strategies for the discovery of a new word's meaning and ask teacher for paraphrase (another expression) or synonym (similar) of new word.

The main topic of unit two is 'consolidation strategies'. It is followed by the following sub-topics: social strategies, study word with a pictorial representation of its meaning, memory strategies, associate the word with its coordinates, skip or pass new word; other memory strategies- affixes and roots-remembering, parts of speech (remembering), paraphrase the word's meaning; chunking, using physical action, semantic feature grids, repetition, listen to tape of word lists and put English labels on physical objects; meta-cognitive strategies, use English-language media (songs, movies, newscasts, etc.) and testing oneself with word tests; use spaced word practice, continue to study word over time, peg method (memorizing words by associating words with numbers), loci method, group words together to study them and use new word in sentences.

At the end of the training material the following contents are incorporated: answer key for the instructor, references, appendix a- the general service list and appendix b- academic word list.

3.3.2 Preparing data collection instruments

Three data gathering tools were employed in this study: vocabulary knowledge test, reading comprehension test and questionnaire. The pre and post vocabulary knowledge tests and the pre and post reading comprehension tests were administered, as part of the experiment, to check whether there were significant differences between the pre-test and post-test results of the treatment group. Moreover, comparison was made between the treatment and conventional group so that the effect of the training could be known.

3.3.2.1 Vocabulary knowledge tests

As part of the experiment, it was essential to give a pre-test and a post-test to both the treatment and conventional groups. Hence, to test the vocabulary breadth of the participants, the revised version of the VLT, which was originally designed by Nation (1983), then validated and developed by Schmitt et al. (2001) Vocabulary Level Tests (VLT) was employed. Of course, there were various standardized tests to test students' vocabulary size; for example, The Eurocentres Vocabulary Size Test (EVST) by Meara & Jones, (1990), the Vocabulary Knowledge Scale (VKS) developed by Marjorie Wesche & T. Sima Paribakht (1996), Nation's Vocabulary Level Tests (VLT) (2001) and The Webster Third Vocabulary Test (Goulden et al,1990). Schmitt et al. (2001) Vocabulary Level Tests (VLT) was chosen among all these standardized tests because it was employed as a reliable and valid vocabulary size measure in a number of studies (e.g, Laufer 1992, 1996; Qian 1999, 2002). The other reason was that, the researcher of this thesis found that it seemed easy enough to administer, mark and interpret.

This instrument is a vocabulary measure for examining a learner's knowledge of words from a specific level. This test involves testing the 2K, 3K, 5K, 10K levels, in addition to the Academic word list. For the purpose of the current study, it was not feasible to test the 10K level as the researcher of this thesis considered it far above the participating students' level. Similarly, the Academic vocabulary list was not included as it contains

words from the other lists. This left us with the 2K, 3K and 5K levels which were well within the participants' level and the scope of the current study.

The Vocabulary Levels Test produced by Schmitt et al. (2001) states the following instruction to test takers:

This is a vocabulary test. You must choose the right word to go with each meaning. Write the number of that word next to its meaning.

Here is an example.

1 business

2 clock _____ part of a house

3 horse _____ animal with four legs

4 pencil _____ something used for writing

5 shoe

6 wall

You answer it in the following way.

1 business

2 clock 6 part of a house

3 horse 3 animal with four legs

4 pencil 4 something used for writing

5 shoe

6 wall

Some words are in the test to make it more difficult. You do not have to find a meaning for these words. In the example above, these words are *business*, *clock* and *shoe*. If you have no idea about the meaning of a word, do not guess. But if you think you might know the meaning, then you should try to find the answer (p.82).

Moreover, a receptive vocabulary depth test was utilized in this study because the above vocabulary breadth test isn't adequate to have full understanding regarding the vocabulary knowledge of the learners. The test which was selected by this researcher to be administered for the study purpose was the revised version of Read's (1998) - Version 4 Word Associates Test. It focuses on the concept of word association, designed to measure two aspects of depth of vocabulary knowledge: (1) word meaning, particularly polysemy and synonym, and (2) word collocation. It comprises of eight options within two boxes for each target word, four options in each box. The format of the test is given underneath.

Sudden

| | | | | | | | | |
|-----------|-------|------------|--------|--|---------|--------|--------|-------|
| beautiful | quick | surprising | school | | thirsty | change | doctor | noise |
|-----------|-------|------------|--------|--|---------|--------|--------|-------|

To answer the above question, test takers are expected to choose four words from the two boxes, which relate to the target word "sudden". The words in the left box may help explain the meaning of the target word, while the words in the right box can collocate with the target word. In the above example, there are two correct answers in the left (quick and surprising) and two in the right box (change and noise), but in other items of this test, there may be either one in the left or three in the right box or vice versa.

"The test format which has been most utilized as a depth of knowledge measure is probably the Word Associates Format (Schmitt, 2010, P. 210)". The WAT has been modified and adopted by many researchers in their studies (Greidanus & Nienhuis, 2001; Qian, 1999, 2002). Moreover, in one of the recent studies (Fan, 2015), the reliability of WAT was .87 based on Kuder-Richardson Formula 21 (K-R 21), which was relatively high.

At the second day of the experiment, students sat for the two vocabulary tests: Schmitt et al. (2001) Vocabulary Level Test (VLT) and Read's (1998) The Word Associates Test.

3.3.2.2 Reading comprehension test

Three English texts with the questions, from the handbook called *TOEFL iBT® Free Practice Test Transcript (2019)*, was adopted as the pre-test and post-test of reading comprehension. The titles of the passages are Agriculture, Iron, and the Bantu Peoples; Running Water on Mars? and Ancient Rome and Greece. All these passages are not culture specific and can be administered to anyone who studies English for academic purpose. In the test, each passage in the Reading section is followed by 10 questions about that passage. Test takers read three passages and answer the questions. Readers were given 54 minutes to read the passages and answer the questions. Nine questions after each passage are worth one point, but the last question in each set is worth two points.

The reading comprehension test comprises of scanning text to locate specific information, skimming to get the gist, making inferences based on what is not explicitly stated in a text, determining the meaning of unfamiliar words or expressions from context, identifying the words that pronouns represent, recognizing an author's purpose and identifying relation between different parts of the text by recognizing indicators in discourse to understand the introduction, development and conclusion idea.

The test was chosen because it was a standardized test recognized world-wide and students who scored well in this test can join prestigious universities found in English-speaking countries. "There's no question that the TOEFL test is the most widely respected English-language test in the world. TOEFL scores are accepted by more than 10,000 universities and other institutions in over 150 countries, including Australia, Canada, New Zealand, the U.S., the U.K. and all across Europe and Asia" (Educational Testing Service, 2019, p.2).

This TOEFL test was administered on the first date of the experiment.

3.3.2.3 Questionnaire

The fourth research question of this thesis, to identify the vocabulary learning strategies use of first year students, was answered by a questionnaire. A questionnaire was used

because of various reasons such as 1. Previous key comprehensive studies on the use of LLSs and VLSs by L2 learners used questionnaire surveys (e.g. Ahmed, 1988; Kudo, 1999; Oxford & Nyikos, 1989; Schmitt, 1997, Segler, 2001; Stoffer, 1995;); 2. A questionnaire is useful to cover a large number of both strategies and respondents (Cohen, 1998; Oxford, 1996); and 3. It will allow the researcher to collect substantial amounts of information in a relatively short time.

The present study used Schmitt's (1997) Vocabulary Learning Strategies Questionnaire (VLSQ). The participants rated their frequency of vocabulary learning strategy use, using a 5-point Likert scale (1. Never or almost never 2. Seldom 3. About half the time 4. Usually 5. Always or almost always). The researcher of this thesis believed that Schmitt's taxonomy of vocabulary learning strategies is both clear and extensive so it became the source of the strategies which was surveyed. The reliability of the questionnaire was checked by studies (for ex. in Rabadi (2016) study- Cronbach -Alpha formula was used and the reliability was 0.868).

This questionnaire was adapted; some amendments were made. The first amendment was made because all the questions of Schmitt's (1997) Vocabulary Learning Strategies Questionnaire (VLSQ) are presented in word and phrase form and written in technical terms; hence, the researcher was convinced that they were beyond the understanding level of his respondents. Taking this into consideration, the words and phrases were changed into sentences and examples were given to some of questions, which this researcher thought unclear. For instance, one of the items of the original questionnaire says - Analyze part of speech; this question was changed to 'I analyze the different parts of speech of the word such as, noun, pronoun and verb.' The second adaptation was that the questions which are related to 'flash cards' were cut out, for it was believed that it was uncommon to use flash cards at university level in Ethiopia. The third modification was made to the questions, which were understood by this researcher as difficult; they were paraphrased with easier expressions. For example, the question 'use cognates in study' was paraphrased as 'I study the origin of the word.'

The questionnaire was written in English language because it was believed that university students were capable of understanding a simplified questionnaire in the medium of English language. Besides, it was difficult to produce questionnaires in the first languages of the students because students at university were from various linguistic backgrounds and it was problematic to choose one mother tongue that all students were good at. Therefore, choosing English language, which was used as a lingua franca by university learners, was considered as a better option.

The participants of this study filled in the questionnaire on the first date of the experiment. The thesis advisor and researcher's experienced colleagues were asked to comment on the questionnaires concerning content validity, face validity and clarity of the items.

3.3.3 Verifying the issue of validity and reliability in the study

To control validity treat to history, both the conventional and treatment group participants who had similar academic background were selected. All the participants attended secondary school education in natural science stream, scored pass mark in Ethiopian Higher Education Entrance Certificate Examination (EHEECE) and joined College of Natural Science, AAU. The same trainer, who read a lot in the field and produced the vocabulary strategy training material, handled both the conventional and the treatment group. This was done in order to control the difference that could be brought because of other extraneous variables (e.g. the trainers' difference in knowledge, training skills, classroom management, age and gender). Furthermore, there were no additional material used in the conventional and the treatment groups; Communicative English Skills I module produced by Tekle et al. (2019) was employed for the two groups.

Another attempt made to control the validity of the study was clear instruction was given in written and spoken form so that respondents completed the questionnaire honestly and correctly. The importance and benefits of the questionnaire was stressed and told to the students. In addition, neither too small nor too large samples were included in the study. For experimental research design, the minimum sample size in each group is 15

participants (Dornyei, 2007). Thus, since 20 participants included in each group of this study, we can say that neither too small nor too large participants incorporated.

Regarding the validity and reliability of the tests, care was also taken by employing standardized tests administered several times for study purpose by well-known researchers in the field. As it was discussed in detail in the methodology section, Schmitt et al. (2001) Vocabulary Level Tests (VLT) was chosen among all these standardized tests because it was employed as a reliable and valid vocabulary size measure in a number of studies (e.g, Laufer 1992, 1996; Qian 1999, 2002). The WAT has been modified and adopted by many researchers in their studies (Greidanus & Nienhuis, 2001; Qian, 1999, 2002). Moreover, in one of the recent studies (Fan, 2015), the reliability of WAT was .87 based on Kuder-Richardson Formula 21 (K-R 21), which was relatively high. The TOEFL test was chosen because it was a standardized test recognized worldwide and students who scored well in this test could join prestigious universities found in English-speaking countries. Schmitt (1997) questionnaire was chosen because its reliability and validity was checked, for years, by various researchers in the field of English language teaching. Major amendments were not made. Of course, 3 items were cut out. Besides, all the questions were rewritten in simple English and examples were provided for some of them.

To control the reliability of the study, to check whether the results of the tests can be reproduced under the same conditions, the same test was administered as pre-test and post-test with three months difference so that the difficulty level difference between the tests did not affect the outcome of the study. Moreover, it was in the first period of the morning both the pre-tests and post-tests were administered. In addition, equal amount of time was offered to the pre-tests and post-tests.

To add value to the reliability and validity of the process, students were not informed whether they were in the treatment group or in the conventional group to minimize artificial behavior. In addition, they were informed that the training was given as a supplementary to Communicative English I course. This care was taken by the researcher to avoid the Hawthorne and the placebo effect. "The Hawthorne effect is defined as the

tendency of human beings to temporarily improve their performance when they are aware it is being studied, especially in a scenario where they think they have been singled out for some experimental treatment” (Singh, 2007, p. 67).

The placebo effect is a common term in medical science. It is defined as an occurrence where persons witness real enhancement after taking a false or imaginary cure (Nikolopoulou, 2023). Nowadays, it has become also a common term in social science experimental research that researchers may employ a placebo control group, which is a group of participants who are revealed to the placebo or false intervention. The effect of this placebo intervention is then weighed against to the outcomes of the treatment group (Cherry, 2023). Therefore, the conventional group participants of this study thought that they were equally treated with the treatment group students, though the conventional group students did not receive vocabulary learning strategy training, unlike the treatment group.

The feedback received from the supervisor and examiners of the proposal and pilot study contributed a lot to the validity and reliability of the research.

The pilot study also helped the researcher to check the reliability and validity of the study. The pilot study was conducted before the main study to evaluate the feasibility of the study procedure. Specifically, an attempt was made to assess the effectiveness of the instruments, sampling technique, research design and data analysis of this Ph. D. dissertation.

3.3.4 Identifying setting and the study population

The research was conducted in Addis Ababa University. In the stage of the main study, from the two streams (Social Science and Natural Science) of the university, two sections (20 students from each section) were randomly selected from Natural Science stream.

3.3.5 Determining the sample size and sampling technique

The sampling technique that was employed to choose the university was convenience sampling. Using this sampling technique, Addis Ababa University was taken. The researcher focused on a university, not school level, because the researcher thought that he had better understanding in the case of universities; he had been teaching English at various universities since 2008. This university was chosen because of the case that the university enrolled students with similar educational background and demographic characteristics that all other universities register across the country. Besides, the researcher was a part-time instructor of English Language and Literature Department of the university and he could have good access to the treatment class and conventional class. “Probably the most common sampling method in educational studies at present is convenience sampling. This occurs where researchers have easy access to particular sites, such as teachers they have worked with before or pupils in their own schools, and use those people in their research. This method has obvious advantages in terms of cost and convenience...” (Muijs, 2004, p.40).

Two sections from Natural Science stream were randomly selected and given to this researcher by the department. The researcher also accepted the assignment for he received a comment, during the pilot study defense, from the examiners that it was recommended to have the participants from the same stream so that it would be credible to get equivalent performance for the experiment. Accordingly, 40 participants were involved in the experiment, 20 participants in the experimental group (section 5B) and 20 participants in the conventional group (section 4B).

Only colleges were selected and not specific departments because Ethiopian Ministry of Education commenced a freshman program in the curriculum and there were only two colleges- College of Social Science and College of Natural Science. The two sections were selected for the experiment employing simple random sampling in order to avoid selection bias.

3.3.6 Assignment of experimental and conventional groups

The following steps were followed to assign students into experimental and conventional groups in the stages of the pilot and the main study. First, the following pre-tests were administered: TOEFL iBT to test the students' reading comprehension; Schmitt, et al. (2001) Vocabulary Level Tests (VLT) to test the learners' vocabulary breadth and Read's (1998) The Word Associates Test (WAT) to test the students' vocabulary depth.

Second, the test papers of each student were marked objectively, based on the answer keys of the tests for Word Associates Test (WAT) and TOEFL iBT, by the researcher. Thinking it had had a common answer key for the vocabulary breadth test (Vocabulary Levels Test- VLT) produced by Schmitt et al. (2001), the researcher of this thesis had sent an email to Professor Norbert Schmitt; however, he received the following mail "As for the VLT, we did not make an answer key, as we felt that anyone giving the test should be proficient enough in English to know the answers." Therefore the researcher of the study produced his own answer key by referring dictionaries and by receiving comments from his Ph. D. candidate friends.

Third, Levene's test was computed to assess whether the results of conventional and experimental group students were almost equivalent in the pre-tests of VLT, WAT and reading comprehension.

Fourth, Independent-Samples T Test was computed on the SPSS version 24 to see if the two groups had similar performances on each of the vocabulary knowledge and reading comprehension tests. If there had been significant difference in the tests' scores between the groups, matching the participants would have been done based on their scores. The researcher (trainer) would have ordered the students to change their classes to equate the groups. Typically, experimental researchers match on one or two of the following characteristics: gender, pretest scores, or individual abilities (Creswell, 2012). Fortunately, there were no significant difference between the conventional group and treatment group regarding the scores in TOEFL test, the Vocabulary Levels Test (VLT)

and Word Associates Test (WAT). Therefore, this situation made the process of the experiment easy to be carried out.

Finally, the groups were named treatment and conventional by drawing lots. According to the lot, Section 4B class was named as conventional group whereas Section 5B was named as treatment group. Both of the groups were drawn from Natural Science Stream, Arat Kilo Campus, AAU. Thus, this allowed the groups to have equal chance of being selected as treatment or conventional. In another expression, this randomization helped the researcher to minimize the influence of extraneous variables. “Randomization is most likely to ensure that there is no bias as everyone will have an exactly equal chance to be in each group” (Muijs, 2004, p. 21).

3.3.7 Conducting the experiment

The same instructor handled both the treatment and conventional groups of the study as the researcher believed that this could minimize instructor-related extraneous variables. “Every time we give the treatment to a subject, we must ensure that this is done in the same way. We need to do this to make sure that we do not introduce *experimenter bias*, the effect of the experimenter on the experiment” (Muijs, 2004, p. 22).

The vocabulary learning strategy training was offered for 16 hours in 8 successive weeks (May 11-July 13, 2022). There are 16 lessons in the training material. There were 8 sessions. Each session lasts for two hours. In each session 2 lessons were covered. In order not affect the regular class time, the training was arranged in their ‘non-class’ period. Students were not informed whether they were in the treatment group or in the conventional group to minimize artificial behavior. In addition, they were informed that the training was given as a supplementary to Communicative English I course. This care was taken by the researcher to avoid the Hawthorne and the placebo effect. “The Hawthorne effect is defined as the tendency of human beings to temporarily improve their performance when they are aware it is being studied, especially in a scenario where they think they have been singled out for some experimental treatment”(Singh, 2007, p. 67).

The placebo effect is a common term in medical science. It is defined as an occurrence where persons witness real enhancement after taking a false or imaginary cure (Nikolopoulou, 2023). Nowadays, it has become also a common term in social science experimental research that researchers may employ a placebo control group, which is a group of participants who are revealed to the placebo or false intervention. The effect of this placebo intervention is then weighed against to the outcomes of the treatment group (Cherry, 2023). Therefore, the conventional group participants of this study thought that they were equally treated with the treatment group students, though the conventional group students did not receive vocabulary learning strategy training, unlike the treatment group.

3.3.8 Administering post-tests

The post tests were intended to examine the effect of vocabulary learning strategies training on the reading comprehension and vocabulary knowledge (vocabulary depth and breadth) of university students. The students took the tests by the same invigilator (the researcher) in the same examination rooms and in the same session (morning) in which they took the pre-tests.

3.3.8.1 Administration of post-experiment questionnaires

The questionnaire that was administered to the students in the treatment group before the experiment to collect data on their use of the learning strategies of vocabulary was also completed by the students after the experiment.

3.4 Methods of Data Analysis

In analyzing the results of the tests, Independent Sample T-test was computed on SPSS to examine if there was a statistically significant difference between the treatment and conventional groups with regard to the learner reading comprehension and vocabulary knowledge. Paired Sample T-test was also run on the SPSS to see if there was a statistically significance difference between the pre and post mean scores of the students in the treatment and conventional groups regarding their reading comprehension,

vocabulary knowledge and vocabulary strategy use. T-test was employed because the variables of the research are continuous- the reading and vocabulary test scores. To compute the vocabulary learning strategies use of the students, values 1 to 5 were given for never, rarely, sometimes, usually, and always respectively. Regarding t-test, Dornyei (2007) states that independent- samples t-tests are for research designs where the results of the two groups that are independent of each other are compared; whereas, paired-sample t-tests are used when the same participants are measured more than once.

In education and social science studies, it is regularly essential to verify whether two or more groups being studied have statistically equal variances. Therefore, Levene's test was computed to assess whether the results of conventional and treatment group students were almost equivalent in the pre-tests of VLT, WAT and reading comprehension. Before running paired samples t-test, it was essential to check the normality of the data. Hence, Kolmogorov-Smirnov test was computed to check the normality of the post-test data.

For word associates test of the treatment group and vocabulary levels test of the conventional group in which the p-value is less than 0.05, Wilcoxon Signed Ranks Test (non-parametric test) was computed.

Effect size was also calculated for the Independent Sample and Paired Sample T-tests in the main study. However, for the pilot study, effect size was not calculated. The T-Tests only tell us there is a significant difference (if any), but do not tell us the magnitude of the effects. Because of this reason, effect size was calculated. "There are a wide variety of effect size measures around but the one we use in conjunction with the t-test is called Cohen's d. The formula for this effect size is as follows: $d = (\text{Mean for group A} - \text{Mean for group B}) / \text{Pooled standard deviation}$. Where the Pooled standard deviation = $(\text{Standard deviation of group 1} + \text{Standard deviation of group 2}) / 2$ " (Muijs, 2004, p.136).The results of the learning strategies of vocabulary and questionnaire were analyzed using the SPSS.

3.5 Pilot Study

3.5.1 Purpose of the pilot study

The aim of conducting this pilot study before the main study was to evaluate the feasibility of the study procedure. Specifically, an attempt was made to assess the effectiveness of the instruments, sampling technique, research design and data analysis of this Ph.D. dissertation. The number and type of research objectives, instruments, participants, research design and analysis which were tried in the pilot study were the same as the plan of the main research in many cases. Therefore, this section presents the results of the pilot study. Moreover, the findings of the study are discussed. Besides, the discussion, based on the results and findings of the study, is incorporated. Finally, lessons learned from the process of the study are stated.

3.5.2 Participants of the pilot study

For the pilot study, one section was selected from Natural Science stream and the other section from Social Science stream (42 participants- 21 students from each section). One of the sections was considered as treatment group whereas the other section was used as a conventional group.

This college had been chosen, by employing convenience sampling, because the students of the college take mostly theoretical courses and they need good command of English so as to have a well understanding in their major courses. Nevertheless, practically it was difficult to get Social Science classes for the experiment because senior regular instructors of Foreign Languages and Literature department were asked to have undergraduate classes and they wanted to be assigned only to Social Science classes. Although it was problematic to have two classes, one for treatment group and another for conventional group, the researcher could get one class because of the great help of his advisor. Finally, the experiment could be conducted by having one treatment class from Social Science stream at Sidist Kilo campus and a conventional group class from Natural Science Stream at Sefere Selam Campus.

3.5.3 Findings of the pilot study

A TOEFL Reading test was administered to first year students on the second session of Communicative English Language Skills I before the training to identify whether the conventional group and treatment group participants had equivalent performance. The students assigned to the treatment and the conventional groups had similar performance in reading comprehension of the pre-test (($t = -1.65$, $df = 40$ for the conventional group and 39.92 for the treatment group, $p > 0.05$)). Based on the data indicated above, we could state that there was no statistically significant difference between the conventional group and treatment group in reading comprehension because the p-value (sig. value) is greater than the cut-off point .05. Of course, there was minor mean difference between the two groups which was 1.48. However, since there was no statistically significant difference between the two groups, it was possible to say the two groups had equivalent performance in reading comprehension and it was logical to carry out the experiment.

Another test which was administered to both the treatment and conventional groups on the third session of Communicative English Language Skills I class, as part of the experiment, was a pre-test of vocabulary depth test known as Word Associates Test Version 4 and which was developed by Read (1998). The aim of this pre-test was to know whether the conventional group and treatment group had equivalent performance in vocabulary depth. The students assigned to the treatment and the conventional groups had similar performance in vocabulary depth of the pre-test (($t = 1.93$, $df = 40$ for the conventional group and 33.64 for the experimental group, $p > 0.05$)). Based on the data presented above, we could state that there was no statistically significant difference between the conventional group and treatment group in vocabulary depth knowledge because the p-value (sig. value) was greater than the cut-off point .05. Of course, there was minor mean difference between the two groups which was 10.05. However, since there was no statistically significant difference between the two groups, it was possible to say the two groups had equivalent performance in vocabulary depth knowledge and it was logical to carry out the experiment.

The vocabulary learning strategy training was offered for 8 hours in 8 consecutive weeks (1 hour each week) as part of this pilot study to the experimental group of 1st year students. After the completion of the training, the same TOEFL reading comprehension test that was given before the training was completed by first year AAU students. The objective of the post test was to examine whether the training brought statistically significant difference between the conventional and treatment group in reading comprehension test scores. To check the difference, independent samples t-test was run on SPSS and the following result found. The students assigned to the treatment and the conventional groups had similar performance in reading comprehension of the post-test (($t = 1.03$, $df = 38$ for the conventional group and 37.50 for the treatment group, $p > 0.05$)). Based on the data provided above, we could conclude that there was no statistically significant difference between the conventional group and treatment group in reading comprehension because the p-value (sig. value) is greater than the cut-off point .05. Of course, there was minor mean difference between the two groups which is 1.43. However, since there was no statistically significant difference between the two groups, it was possible to say the two groups had equivalent performance in reading comprehension though the treatment group took vocabulary learning strategies training while the conventional group did not take the training. The researcher believed that they might show better performance in reading comprehension when the treatment group took longer training in the main study.

The students assigned to the experimental scored greater than the conventional group in vocabulary levels test as the post-test (($t = -2.04$, $df = 40$ for the control group and 31.77 for the experimental group, $p < 0.05$)). Based on the data stated above, we could conclude that there was statistically significant difference between the conventional group and treatment group in vocabulary breadth because the p-value (sig. value) was less than the cut-off point .05; it was 0.04. Moreover, there was significant mean difference between the two groups which is 12.38. This means that the vocabulary learning strategy training helped treatment students improve their vocabulary breadth knowledge.

After the completion of the vocabulary learning strategy training, the same vocabulary depth test known as Word Associates Test (WAT), which was also taken as a pretest, was completed by first year AAU students. The objective of the post test was to examine whether the training brought statistically significant difference between the conventional and treatment group in vocabulary depth knowledge. To check the difference, independent samples t-test was run on SPSS and the following result found. The students assigned to the conventional scored greater than the treatment group in word associates test as the post-test (($t = 2.12$, $df = 40$ for the control group and 35.98 for the experimental group, $p < 0.05$ ’).).Based on the data stated above, we could conclude that there was statistically significant difference between the conventional group and treatment group in vocabulary depth because the p-value (sig. value) was less than the cut-off point .05; it was .04. Besides, there was significant mean difference between the two groups which was 9.47. In this test the treatment group who took vocabulary strategy training for 8 weeks achieved less than the conventional group who did not take vocabulary strategy training.

TOEFL reading comprehension test was given two times to the conventional group and treatment group: before the vocabulary strategy training and after the training. Therefore, the objective of running this paired samples test was to examine whether the students scored statistically better result in reading comprehension or not, after they took part in the training. The difference in reading comprehension test scores during the pre-training and post training of the conventional group and the treatment group is provided below. There was a statistically significant difference between the pre and the post-test performances of students in the conventional group in their reading comprehension (($t = -4.37$, $df = 19$, $p < 0.05$ ’).). However, there was no statistically significant difference between the pre and the post-test performances of students in the treatment group in their reading comprehension (($t = -1.83$, $df = 19$, $p > 0.05$ ’).). The result was astonishing because conventional group students who took vocabulary strategy training for 8 sessions did not improve their reading comprehension skills, but treatment group students who did not take the training improved their reading comprehension skills. An attempt was made to carefully analyze the training procedure in the main study and to avoid uncertainties.

Vocabulary breadth test known as Vocabulary Levels Test (VLT) was given two times to the conventional group and treatment group before the vocabulary strategy training and after the training. Therefore, the objective of running this paired samples test was to examine whether the students scored statistically better result in vocabulary breadth after they took part in the training. The difference in the Vocabulary Levels Test scores during the pre-training and post training of the experimental group is provided below. There was no statistically significant difference between the pre and the post-test performances of students in the conventional group in their vocabulary breadth ($t = -1.84$, $df = 19$, $p < .08$). There were also no statistically significant difference between the pre and the post-test performances of students in the treatment group in their vocabulary breadth ($t = -.58$, $df = 20$, $p > 0.05$). Although students scored in the posttest better than in pretest with a mean difference of 2.04, it was not statistically significant. This statistically insignificant change might be related to the shorter time offered to the vocabulary strategy training. When longer time was provided for the vocabulary strategy training in the main study, students might show statistically significant change in their Vocabulary Levels Test scores.

Vocabulary depth test known as Word Associates Test (WAT) was given two times to the conventional group and treatment group before the vocabulary strategy training and after the training. Therefore, the objective of running this paired samples test was to examine whether the students scored statistically better result in vocabulary depth after they took part in the training or not. The difference in the Word Associates Test scores during the pre-training and post training of the treatment group is provided below. There was no statistically significant difference between the pre and the post-test performances of students in the conventional group in their vocabulary depth ($t = -.14$, $df = 20$, $p < .88$). There was also no statistically significant difference between the pre and the post-test performances of students in the treatment group in their vocabulary depth ($t = -1.30$, $df = 20$, $p > 0.05$).

The following result of paired samples t-test showed the effect of vocabulary strategy training on students' use of vocabulary learning strategies. It particularly indicated students' strategy use before and after the training. Hence, they clearly illustrated whether

students brought difference in their strategy use because of the training. Therefore, based on Schmitt (1997) study, the 55 vocabulary learning strategies incorporated in the questionnaire are classified into 6 types (determination, social for discovery, social for consolidation, memory, cognitive and meta-cognitive) and the results stated students' strategy use in each type before and after the training.

The difference between the treatment group students' pre and post-training mean scores concerning their use of the determination strategies was not statistically significant ($df = 20$, $t\text{-value} > \text{table value}$, $p\text{-value} > .05$). In other words, after the training, the students did not show a statistically significant improvement on their use of the determination strategies of vocabulary. The difference between the control group students' pre and post-training mean scores concerning their use of the determination strategies was not statistically significant ($df = 20$, $t\text{-value} > \text{table value}$, $p\text{-value} > .05$).

The difference between the treatment group students' pre and post-training mean scores concerning their use of social for discovery strategies was not statistically significant ($df = 20$, $t\text{-value} > \text{table value}$, $p\text{-value} > .05$). In similar fashion, after the training, the students did not show a statistically significant improvement on their use of the social for discovery strategies of vocabulary. the difference between the control group students' pre and post-training mean scores concerning their use of the social for discovery strategies was not statistically significant ($df = 20$, $t\text{-value} > \text{table value}$, $p\text{-value} > .05$).

The result also illustrated that the difference between the treatment group students' pre and post-training mean scores regarding their use of social for consolidation was not statistically significant ($df = 20$, $t\text{-value} > \text{table value}$, $p\text{-value} > .05$). In another expression, after the training, the treatment group students did not show a statistically significant improvement on their use of the social for consolidation strategies of vocabulary.

The difference between the treatment group students' pre and post-training mean scores in relation to their use of memory strategies was not statistically significant ($df = 20$, $t\text{-value} > \text{table value}$, $p\text{-value} > .05$). This means, after the training, the students did not

show a statistically significant improvement on their use of the memory strategies of vocabulary. the difference between the conventional group students' pre and post-training mean scores concerning their use of the memory strategies was not statistically significant ($df = 20$, $t\text{-value} > \text{table value}$, $p\text{-value} > .05$).

The difference between the treatment group students' pre and post-training mean scores regarding their use of cognitive strategies was not statistically significant ($df = 20$, $t\text{-value} > \text{table value}$, $p\text{-value} > .05$). This means, after the training, the treatment group students did not show a statistically significant improvement on their use of the cognitive strategies of vocabulary. the difference between the conventional group students' pre and post-training mean scores concerning their use of the cognitive strategies was not statistically significant ($df = 20$, $t\text{-value} > \text{table value}$, $p\text{-value} > .05$).

The difference between the treatment group students' pre and post-training mean scores regarding their use of meta-cognitive strategies was not statistically significant ($df = 20$, $t\text{-value} > \text{table value}$, $p\text{-value} > .05$). This means, after the training, the students did not show a statistically significant improvement on their use of the meta-cognitive strategies of vocabulary. the difference between the conventional group students' pre and post-training mean scores concerning their use of the meta-cognitive strategies was not statistically significant ($df = 20$, $t\text{-value} > \text{table value}$, $p\text{-value} > .05$).

3.5.4 Lessons learned from the pilot study

Various important lessons were gained in the process of conducting the pilot study. The first lesson gained was related to specific objectives of the study. One of the specific objectives of this study had been to investigate the attitude of university students towards the effect of vocabulary learning strategy training on their use of vocabulary strategies, reading comprehension and vocabulary knowledge. First, the advisor advised this researcher to reconsider this specific purpose because it didn't go with the title of the research. Second, the examiners also raised the same point. The researcher was hesitant to cancel out the specific objective until he thought that answering the other four specific objectives were broad enough for one Ph.D. dissertation. Moreover, the researcher believed that letting students sit for 3 pretests, 3 post tests, 1 pre-training questionnaire

and 1 post-training questionnaire; and asking them for additional tasks would have made them bored and genuine response might not have gained. Therefore, because of the above relevant reasons, the particular aim of investigating the attitude of first year students regarding the effect of vocabulary learning strategy training was cut out.

The second vital input that was found during the pilot was associated with the quality of the questionnaire. Although an attempt was made to make the questions in the questionnaire clear, there were some questions that were not clear because there were some technical terms which were found difficult while students were completing the questionnaire. For example, the question 'Use Keyword Method' was edited as 'I find a word from my mother tongue which sounds like the English word I study'; the question 'guess from textual context' was edited as 'I guess from textual context (by looking at the words that appear before and after a new word). There were also questions that need examples. For instance the following example was added to the question 'study and practice meaning in a group': all animals first, all plants second etc. Besides, the structures of the questions were provided in phrase form and without first person 'I'; however, finally all the questions were provided in the form of complete sentences. For example the question "Associate the word with its coordinates" was edited as "I associate the word with its coordinates (e.g. associating the word 'cherry' with 'apple', 'banana' and 'orange').

The third significant lesson learned was connected with the reading test. First it had been prepared with vague instruction; students were not told how to give their answers. They were simply asked to answer the reading comprehension questions after reading the passages. Later, the instruction was made clear as 'Choose the best answer and circle the letter of your choice.' The second editing work was done in relation to question number 10, 20 and 30. Even though each of these questions needed a box so that students could write their answers conveniently; the boxes had not been provided. Therefore, this problem was solved immediately. The third change was made regarding the contents of the passage. Because it had been planned that the participants had been only Social Science students, the passages were reasonably selected only from Social Science fields. Later, it was found that the participants of this study were from both Social Science and

Natural Science streams, the passages focus on the two fields for the purpose of the pilot study. However, the participants of the main study were only Natural Science College students; therefore, the passages were selected considering academic background.

The fourth vital lesson learned was concerning the time allocated for vocabulary learning strategy training. The time allocated for the training during the pilot study was not enough to cover the training material. Taking lesson from the pilot study and from the experience of other previous studies, the researcher allotted 16 hours, for the training in the main study, which was enough to effectively train the students.

The fifth fundamental input was gained in relation to vocabulary knowledge tests. Some options of the questions hadn't been arranged properly; nonetheless, they were later put appropriately. However, the significant issue was related to answer key of the tests. First, thinking it had had a common answer key for the vocabulary breadth test (Vocabulary Levels Test- VLT) produced by Schmitt, et al. (2001), the researcher of this thesis sent an email to Professor Norbert Schmitt; however, he received the following mail "As for the VLT, we did not make an answer key, as we felt that anyone giving the test should be proficient enough in English to know the answers." Therefore the researcher of the study produced his own answer key by referring dictionaries and by receiving comments from his Ph. D. candidate friends. The researcher also sent an email to John Read for an answer key for the vocabulary depth test (Word Associates Test- WAT). Luckily, the author immediately sent the answer key to this researcher accompanied by a short note "Thank you for your enquiry. You are welcome to use one of my WATs if it is appropriate for your research. I am not sure which test you are referring to, so I am sending two tests and answer keys." Finally, the researcher could use the answer key of Version 4 WAT and marked students' test papers.

The sixth invaluable lesson gained was related to the participants of the study. The participants of the pilot study were chosen from both Natural Science College and Social Science College. Nevertheless, after receiving feedback from the examiners and fellow Ph. D. candidates, only Natural Science College students were employed as participants in the main study. The point raised as a reason was it was not credible to state that

Natural Science College and Social Science College students had equivalent performance in reading comprehension and vocabulary knowledge, in order to conduct experimental research. The examiners and the Ph. D. candidates believed, providing their teaching experience, that Natural Science College students were by far better than Social Science College students in English Language skills in general.

CHAPTER FOUR: DATA ANALYSIS AND DISCUSSION OF THE MAIN STUDY

4.1. Introduction

This chapter presents the main study results gathered by the following data gathering instruments: TOEFL reading comprehension test, vocabulary levels test, word associates test and vocabulary learning strategies questionnaire. As the study was experimental, tests and the questionnaire were completed before and after the vocabulary learning strategies training; the training material was produced by the researcher of this study by consulting various books in the field. To check whether the treatment group and conventional group students had significant difference in their vocabulary knowledge and reading comprehension or not, independent samples t test was employed. Moreover, to investigate the effect of the training on the treatment group students' reading comprehension skills, vocabulary knowledge and vocabulary learning strategies usage, paired samples t test was used. Paired samples t test was also run to know whether students who did not take the training but who took communicative English Skills I course showed improvement in their reading comprehension skills, vocabulary knowledge and vocabulary learning strategies usage.

In education and social science studies, it is regularly essential to verify whether two or more groups being studied have statistically equal variances. Therefore, Levene's test was computed to assess whether the results of conventional and treatment group students were almost equivalent in the pre-tests of VLT, WAT and reading comprehension. The outputs of the test are presented below.

Table 1. Leven's Test of Homogeneity of variance in Vocabulary Levels Pre-test

| | | Levene | | | |
|--|---|-----------|-----|--------|------|
| | | Statistic | df1 | df2 | Sig. |
| VLTPre-test scores of conventional and treatment groups | Based on Mean | .000 | 1 | //38 | .986 |
| | Based on Median | .039 | 1 | 38 | .844 |
| | Based on Median and with adjusted df | .039 | 1 | 38.000 | .844 |
| | Based on trimmed mean | .034 | 1 | 38 | .855 |

As indicated in the above table, the p-value of the Leven's test is greater than 0.05. In addition, the table shows $F=0.000$, $df= (1, 38)$ or F value indicates, $F=0.000$ with 1 and 38 degrees of freedom at $p > 0.05$ level of significance. Hence, the variance between the VLT results between the conventional and treatment group was not significantly different. Moreover, independent samples t-test was also calculated to assure the homogeneity of the two groups in the pre-test of VLT.

Table 2. Leven's Test of Homogeneity of variance in Word Associates Pre-test

| | | Levene Statistic | df1 | df2 | Sig. |
|----------|---|---------------------|-----|--------|------|
| WAT | Based on Mean | 1.715 | 1 | 38 | .198 |
| Pre-test | Based on Median | 1.530 | 1 | 38 | .224 |
| | Based on Median and with adjusted df | 1.530 | 1 | 36.419 | .224 |
| | Based on trimmed mean | 1.623 | 1 | 38 | .210 |

Table 2 illustrates that p-value for the Levene test was greater than 0.05, then the variances between the conventional group and treatment group were not significantly different from each other (i.e., the homogeneity assumption of the variance is met). Specifically, the p-value was $F=0.198$, $df=(1, 38)$ or F value indicates, $F=0.198$ with 1 and 38 degrees of freedom at $p > 0.05$ level of significance. For further clarity independent samples test was also computed and presented in this section.

Table 3: Leven's Test of Homogeneity of Variance in Reading Pre-test

| | | Levene Statistic | df1 | df2 | Sig. |
|----------|---|---------------------|-----|--------|------|
| Reading | Based on Mean | 3.338 | 1 | 38 | .076 |
| Pre-test | Based on Median | 3.398 | 1 | 38 | .073 |
| | Based on Median and with adjusted df | 3.398 | 1 | 37.831 | .073 |
| | Based on trimmed mean | 3.400 | 1 | 38 | .073 |

The above table shows that there is no significant difference between results of the conventional group and the treatment group in reading pre-test. The p-value is .076, which was greater than the cut-off point of .05 and df was 1, 38. After running independent samples t-test and confirming the homogeneity of the result, the intervention was offered. The result is placed underneath.

4.2. Independent Samples T-Test Results of the Pre-tests and Post-Tests

4.2.1. Independent samples t-test result of reading comprehension pre-test

At the beginning of the experiment, it was appropriate to check whether treatment group and conventional group students have equivalent reading comprehension skills. Therefore, the two randomly selected groups sat for TOEFL reading comprehension test. The test scores of the learners are presented in the table below.

Table 4: Independent Samples T-Test Result of Reading Comprehension Pre-Test of the Treatment and Conventional Groups

| Group | No. of Students | Mean | Standard Deviation | DF | T-value | P-value |
|--------------------|-----------------|-------|--------------------|-------|---------|---------|
| Treatment Group | 20 | 17.82 | 6.30 | 36.96 | 1.14 | .32 |
| Conventional Group | 20 | 19.93 | 5.3 | 38 | | |

As presented in Table 5.2.1 above, the mean score of the treatment group was 17.82 out of 33 and the mean score of the conventional group was 19.93 out of 33 regarding reading comprehension pre-test scores of first year students. The calculated standard deviation of the experimental group was 6.30, and that of the control group was 5.3. The t and p-values were described as 1.14 and .32 respectively. This shows that the students assigned to the treatment and the conventional groups had similar performance in reading comprehension of the pre-test ($t = 1.14$, $df = 38$ for the conventional group and 36.96 for

the treatment group, $p > 0.05$). The TOEFL comprehension test comprises of 30 questions. The 27 questions worth 1 point each while the 3 questions worth 2 points each. Totally, the test has a weight of 33 marks.

Based on the data indicated above, it could be stated that there was no statistically significant difference between the treatment group and conventional group in the pre-test of reading comprehension because the p-value (sig. value) was greater than the cut-off point .05. Of course, there was minor mean difference between the two groups which is 2.11. However, since there was no statistically significant difference between the two groups, it was possible to express the two groups had equivalent performance in reading comprehension pre-test and it was logical to carry out the experiment.

4.2.2. Independent samples t-test result of vocabulary levels (vocabulary breath knowledge) pre-test

To compare the vocabulary breadth knowledge difference between learners in the treatment group and conventional group, the two group students took a standardized vocabulary levels test before the treatment group students receive training of vocabulary learning strategies. The pretest enabled us to know the probable vocabulary breadth knowledge change brought by the training. The result of the conventional group and treatment group students in vocabulary breadth knowledge pretest is provided below.

Table 5: Independent Samples T-test Result of Vocabulary Levels (Vocabulary Breadth knowledge) Pre-Test of the Treatment and Conventional Groups

| Group | No. of Students | Mean | Standard Deviation | DF | T-value | P-value |
|--------------------|-----------------|-------|--------------------|-------|---------|---------|
| Treatment Group | 20 | 77.40 | 18.55 | 37.58 | .34 | .54 |
| Conventional Group | 20 | 79.30 | 16.70 | 38 | | |

The table above illustrates the mean score of vocabulary levels pre-test of the experimental group was 77.40 while the mean score of the conventional group in the pre-test was 79.30. The standard deviation of the treatment group was 18.55 and the standard deviation of the conventional group was 16.70. Moreover, the table shows that the t-value of the two groups was .34 and the p-value of the two groups was .54.

From the data of the above table, it can be seen that no significant difference was found between the treatment group and the conventional group in vocabulary levels (vocabulary breadth knowledge) pre-test ($t = .34$, $df = 38$ for the conventional group and 37.58 for the treatment group, $p > 0.05$).

The result clearly showed that it was scientifically correct to begin the experiment because there were treatment and conventional groups of students who were equivalent in vocabulary breadth knowledge.

The Vocabulary Levels Test (VLT) comprises of 30 questions. Each question has a weight of 3 points. Totally the test was marked out of 90.

4.2.3. Independent samples t-test result of word associates (vocabulary depth knowledge) pre-test

In order to examine the effect of vocabulary strategy training on students' vocabulary depth knowledge, it was significant to identify there were equivalent performance in vocabulary depth knowledge between learners assigned to experimental and conventional groups. Therefore, independent samples t-test was computed and the following result was found.

Table 6: Independent Samples T-test Result of Word Associates (Vocabulary Depth Knowledge) Pre-Test of the Treatment and Conventional Groups

| Group | No. of Students | Mean | Standard Deviation | DF | T-value | P-value |
|--------------------|-----------------|--------|--------------------|-------|---------|---------|
| Treatment Group | 20 | 121.65 | 17.42 | 35.39 | -.40 | .19 |
| Conventional Group | 20 | 119.65 | 13.19 | 38 | | |

The table above shows the mean score of the pre-test of the treatment group was 121.65 out of 160 while the mean score of word associates pre-test of the conventional group was 119.65 out of 160. The standard deviation of the treatment group was 17.42 and the standard deviation of the conventional group was 13.19. In addition, the table presents that the t-value of the two groups was -.40 and the p-value of the two groups was .19.

From the data of the above table it is shown that no significant difference was found between the conventional group and treatment group in vocabulary levels (vocabulary breadth knowledge) pre-test ($t = -.40$, $df = 38$ for the conventional group and 35.39 for the treatment group, $p > 0.05$).

The result clearly indicates that it was sound to conduct the experiment because there were conventional and treatment group of students who were equivalent in vocabulary depth knowledge.

4.2.4. Independent samples t-test result of reading comprehension post-test

To see the effect of the training in relation to the instruction given in communicative English, a group was included in the study as additional source of information to assess the effectiveness of vocabulary strategy training. Hence independent samples t-test analysis was carried out using SPSS Version 24 to compare the performance of

experimental and conventional group students. The result obtained from the t-test analysis and the answer of the first research question of this research is provided as follows.

Table 7: Independent Samples T-Test Result of Reading Comprehension Post-test of the Treatment and Conventional Groups

| Group | No. of Students | Mean | Standard Deviation | DF | T-value | P-value |
|--------------------|-----------------|-------|--------------------|-------|---------|---------|
| Treatment Group | 20 | 20.25 | 5.96 | 36.66 | .67 | .33 |
| Conventional Group | 20 | 21.66 | 7.23 | 38 | | |

As the above table illustrates, it was found that the mean score of the treatment group was 20.25 out of 33 and the mean score of the conventional group was 21.66 out of 33. The standard deviation shows 5.96 for the treatment group and 7.23 for the conventional group. The result also indicates the t-value and p-value as .67 and .33 respectively.

Based on the highlights of the table, it was found no significant difference in reading comprehension skills between learners assigned to the treatment group and conventional group ($t = .67$, $df = 38$ for the conventional group and 36.66 for the treatment group, $p > 0.05$).

The TOEFL comprehension test comprises of 30 questions. The 27 questions worth 1 point each while the 3 questions worth 2 points each. Totally, the test has a weight of 33 marks.

The most surprising aspect of the data was no significant difference between the two groups was evident; nevertheless, only the treatment group, not the conventional group, students received vocabulary learning strategies training for 8 weeks, 2 hour per week (16

hours). It was expected that the treatment group students performed better than the conventional group students in reading comprehension test because it was believed that the vocabulary learning strategies training might have a positive effect on the learners' reading comprehension skills. The data of the table supports the null hypothesis which states that there is no statistically significant difference in reading comprehension between students who receive vocabulary learning strategy training and those who do not take the training. This finding was against the result found by Rezvani and Jabbari (2016) as, "These vocabulary teaching strategies had a positive effect on improving learner's reading comprehension skill".

The treatment group students were not doing better than the conventional group in reading comprehension skills. This can be associated with the complex nature of reading comprehension skills. There are several factors that determine students' improvement in reading comprehension skills. Of course, as it is discussed in the literature review section, vocabulary strategy training has a positive effect in improving students reading comprehension skills. However, vocabulary strategy training is not enough to bring enhancement in reading comprehension. Students also need reading strategies. Meanwhile, the treatment group students were not well trained in reading strategies. The focus was given to vocabulary learning strategies. Academic studies on how to instruct reading in a conventional classroom situation have shown that teachers do not devote adequate time training reading strategies (Ness, 2008). Moreover, Sailors (2009) found that teachers regularly have only inadequate knowledge about how to communicate reading strategies and incline to draw from what they studied in their own school experiences when comprehending texts.

According to Koch & Sporer (2017), one scientifically based program for promoting the reading skills of students is reciprocal teaching (RT). The term RT refers to the application of reading strategies while reading a text together with peers. In this peer group, students interact with each other and alternate in leading the group. More specifically, students learn how to use the four reading strategies of clarifying, summarizing, questioning, and predicting. Because the treatment group students were not

trained meticulously in these reading strategies, their reading comprehension could not get improved.

Researchers also recommend the following strategies to improve reading comprehension skills: activating prior knowledge, relating personal experience, visualizing or “painting a picture in your mind” of what is being read, monitoring or checking for understanding while reading, determining importance of a text, analyzing the structure of a text and drawing inferences (Juggoo, 2020). The other rationale regarding the poor improvement in reading skills of the treatment group students of this study could be associated with they did not well receive training in the aforementioned reading strategies.

Moreover, to improve students’ reading comprehension skills, they should be taught directly key common words that appear in reading texts. In this regard, even though an attempt was made to teaching students common academic and most frequent words directly, it might not be per the required level. As researchers recommend, besides vocabulary strategy training, students need direct vocabulary teaching. Much vocabulary is learned without formal teaching. We gain words from conversation, observation, television/media, and reading. However, research shows that explicitly teaching vocabulary can measurably improve reading comprehension (Shanahan, 2024). If the treatment group students were instructed in well-designed direct vocabulary instruction, there would be good development in their reading comprehension skills. Marzano & Pickering (2005) described a six-step process for teaching vocabulary. Those steps are:

1. The teacher provides a description, explanation, or example of the new term.
2. Students restate the explanation of the new term in their own words.
3. Students create a nonlinguistic representation of the term.
4. Students periodically engage in activities that help them add to their knowledge of the vocabulary term.
5. Periodically, students are asked to discuss terms with one another.
6. Periodically, students are involved in games that allow them to play with the terms.

Askari (2014) also found that the group which received meta-cognitive vocabulary strategy instruction outperformed the conventional group on the breadth of vocabulary knowledge test. The statistical analyses of the gathered data revealed that meta-cognitive vocabulary strategy training did have a significant effect on the Iranian EFL students' breadth of vocabulary knowledge. In other words, the meta-cognitive vocabulary strategy training and practice the experimental group received about how to plan their vocabulary learning, set specific goals within a time period, select the most appropriate vocabulary learning strategy among a repertoire of strategies, monitor the use of strategies, use a combination of strategies, self-testing degree of mastery of the new vocabulary items after meeting the words for the first time, managing their time by devoting some time during their study hours to vocabulary practice, and finally evaluating the whole process contributed to this improved and expanded lexical knowledge.

4.2.5. Independent samples t-test result of vocabulary levels (vocabulary breadth) post-test

After the vocabulary levels pretest of the two groups and the vocabulary learning strategies training for the treatment group, a vocabulary levels post-test was given to both treatment and conventional groups. Finally, independent t-test was run on SPSS and the following result was found.

Table 8: Independent Samples T-Test Result of Vocabulary Levels (Vocabulary Breadth) Post-Test of the Treatment and Conventional Groups

| Group | No. of Students | Mean | Standard Deviation | DF | T-value | P-value |
|--------------------|-----------------|-------|--------------------|-------|---------|---------|
| Treatment Group | 20 | 86.80 | 2.76 | 19.50 | -2.30 | .00 |
| Conventional Group | 20 | 74.35 | 23.97 | 38 | | |

The Vocabulary Levels Test (VLT) comprises of 30 questions. Each question has a weight of 3 points. Totally the test was marked out of 90.

Table 5.2.5 provides that the experimental group students scored a mean score of 86.80 out of 90 in vocabulary levels test while the mean score of the conventional group students was 74.35 out of 90 in the test. The standard deviation of the treatment group was 2.76 but the standard deviation of the conventional group was found as 23.97. The t-value and p-value was found to be -2.30 and .00 respectively.

It is apparent from the table that the treatment group students performed significantly better in vocabulary levels test (vocabulary breadth) than the conventional group students ($t = -2.30$, $df = 38$ for the conventional group and 19.50 for the treatment group, $p < 0.05$). This could be related to the vocabulary learning strategies training offered to the treatment group learners helped them in improving their vocabulary breadth knowledge. The literature also indicates that as students are acquainted with various vocabulary learning strategies, their vocabulary knowledge also increases. Therefore, according to the data of this experiment, it can be concluded that vocabulary learning strategies training had a positive effect on students' vocabulary breadth knowledge. The effect size was moderate (Cohen's $d: 0.93$). The data in the table confirms the alternative hypothesis which reads as there is statistically significant difference in vocabulary breadth knowledge between students who receive vocabulary learning strategy training and those who do not take the training. In accordance with the present results, previous studies, for instance Fan, N. (2015), have demonstrated that inferencing strategies made a significant and positive contribution to participants' breadth of vocabulary knowledge.

It is well researched and discussed in the literature review that when students receive vocabulary strategy training, they improve their capacity of identifying various vocabulary learning strategies. Knowledge of several vocabulary learning strategies in turn helps them study vocabulary effectively and eventually improve their vocabulary knowledge. As it is discussed in the literature review, vocabulary breadth knowledge is the total amount words a student knows regardless of his/her knowledge depth. Regarding the relationship between vocabulary learning strategies and vocabulary breadth knowledge, similar findings with this research were found.

Zhang & Lu (2015) found that FORM (learning orthographical and phonological forms of words) demonstrates significant predictive power over meaning recognition (.41, $p = .002$) and meaning recall (.50, $p = .001$). ASSOCIATION shows significant predictive power over meaning recognition (.44, $p = .009$). The mnemonic strategies, in particular FORM and ASSOCIATION, demonstrate a closer relationship with vocabulary breadth knowledge than cognitive strategies. Knowledge of form–meaning connections entails knowledge of word forms, as otherwise such connections cannot be established.

Gu and Johnson (1996) also reported that the metacognitive strategies of self-initiation and selective attention were both significant predictors of English proficiency; they also reported a positive relationship between several types of vocabulary learning strategies and vocabulary breadth knowledge, including contextual guessing, skillful use of dictionaries, note-taking, paying attention to word formation, contextual encoding, and activation of newly learned words.

In the same token, the participants of the treatment group took training in vocabulary learning strategies. The vocabulary learning strategies were generally classified into 5: determination, social for discovery, social for consolidation, cognitive, metacognitive and memory. The students were familiarized with 55 vocabulary learning strategies. This in turn helped the students to motivate themselves in studying several words and their basic meanings. In another expression, their vocabulary breadth knowledge could be improved.

It is noted that the conventional group students received only Communicative English Skills I course. This textbook at the time included very few vocabulary learning strategies. It explicitly states an explanation of only one vocabulary learning strategy, that is, identifying dennotative and connotative meanings. However, it incorporates only 9 strategies in task form and explanation is not provided. These are the strategies that Communicative English Skills I Module consists of.

- Using part of speech to remember the meaning of a word
- Remember the meanings of words by focusing on the prefixes, the root words and suffixes
- Using new word in sentences
- Connecting the word to its synonyms and antonyms (Similarity or opposite)
- Discovering new meaning through group work activity
- Writing word lists with their meanings
- Guessing from textual context (by looking at the words that appear before and after a new word)
- Analyzing affixes (prefix and suffix) and roots
- Analyzing part of speech (e.g. noun, verb, adverb, adjective...)

After studying these small numbers of vocabulary learning strategies, most of them stated explicitly, conventional group students could not improve their knowledge of the literal meanings of many words. In another expression, they could not improve their vocabulary breadth knowledge. Therefore, it is advisable to acquaint students with explicit study of several vocabulary learning strategies. The current Ethiopian Communicative English Skills I module should incorporate explicit lessons of numerous vocabulary learning strategies.

4.2.6. Independent samples t-test result of word associates (vocabulary depth) post-test

The purpose of running this independent samples t-test was to get additional information concerning whether the vocabulary strategy training helps students in improving their vocabulary depth knowledge. Followed by the pretest and the training, a post-test of word associates was administered to students of treatment and conventional groups. By utilizing the results of this post-test, the researcher computed independent samples t-test on SPSS Version 24 and the vocabulary breadth knowledge of the two groups was compared as follows.

Table 9: Independent Samples T-Test Result of the Treatment and Conventional Groups in Word Associates (Vocabulary Depth) Post-Test

| Group | No. of Students | Mean | Standard Deviation | DF | T-value | P-value |
|--------------------|-----------------|--------|--------------------|----|---------|---------|
| Treatment Group | 20 | 130.20 | 16.84 | 19 | -2.91 | .00 |
| Conventional Group | 20 | 117.80 | 15.02 | 38 | | |

The above table highlights the mean difference of the word associates test as 130.20 out of 160 for the experimental group learners while it was 117.80 out of 160 for the conventional group students. The computed standard deviation of the treatment group was 16.84 but the computed standard deviation of the conventional group was 15.02. It was also calculated for both conventional and treatment groups that the t-value and p-value are -2.91 and .00 respectively.

The Word Associates Test consists of 40 items. Each item has four answers and four points. Hence, totally the test is marked out of 160.

From the above data, it is evident that there is a statistically significant difference between the treatment group and conventional group; the treatment group learners outperformed the conventional group learners in word associates (vocabulary depth) test ($t = -5.49$, $df = 38$ for the conventional group and 30.16 for the treatment group, $p < 0.05$). This significant difference was most probably associated with the advantage of vocabulary learning strategies training offered to treatment group students. The students could utilize the different vocabulary learning strategies they learned during the training to study lots of words and increase their vocabulary knowledge. From the data in table 5.2.6, it could be seen that training of vocabulary learning strategies training had a positive effect of students' vocabulary depth knowledge. The effect size was strong

(Cohen's d : 13.62). The result matches with the alternative hypothesis: there is statistically significant difference in vocabulary depth knowledge between students who receive vocabulary learning strategy training and those who do not take the training. It further supports the idea of Zhang & Lu (2015) who found that "Strategies that focus on learning the forms and associative meanings of words are significant predictors of both vocabulary breadth and depth knowledge" (p.1).

The strategies of FORM and ASSOCIATION have significant positive regression loads of .36 ($p = .007$) and .52 ($p = .009$) on vocabulary depth, respectively, indicating that participants who use these strategies tend to score higher on vocabulary depth knowledge. These results point to the fundamental importance of learning word forms and understanding word associations in expanding vocabulary depth. ASSOCIATION had the highest predictive power over depth of vocabulary knowledge, indicating its critical role in developing vocabulary depth. ASSOCIATION strategies such as associating a word with related words or grouping words according to certain relations can help learners establish a richer vocabulary network in their mental lexicon (Zhang & Lu, 2015).

In this study, as it was mentioned earlier treatment group students took training in vocabulary strategies for 16 hours with well-produced training material. They were acquainted with 55 vocabulary learning strategies. They mainly developed their vocabulary strategy use for they studied 6 major categories of vocabulary strategies (determination, social for discovery, social for consolidation, memory, cognitive and meta-cognitive). The instruction also assisted them to enhance their vocabulary depth knowledge. This means that the students do not only know the basic meaning of the words but also the form (spoken, written & word parts); meaning (form & meaning, concept & associations) and use (grammatical functions, collocations & constraints on use-register, frequency ...) of the words.

If students in the conventional group received explicit strategy training in lots of vocabulary learning strategies, they could improve also their vocabulary depth knowledge. As experts in the field suggests, language teachers should expose advanced language students to several vocabulary learning strategies. Hence, they can employ the strategies to have deep understanding regarding the various knowledge aspects of words.

As discussed above, it would be more appropriate for course book writers to include several explicit lessons of vocabulary learning strategies into the current Communicative English Skills module. As students are familiarized with lots of vocabulary learning strategies, they have vocabulary knowledge which is beyond the basic meanings of words. Rather, they develop all rounded word knowledge. They enhance their form, meaning and use knowledge of vocabulary.

Before running paired samples t-test, it was essential to check the normality of the data. Hence, Kolmogorov-Smirnov test was computed to check the normality of the post-test data. The result is provided below.

Table 10: Kolmogorov-Smirnov normality post-test result

| Type of the group and post-test | Statistic | Df | sig. |
|---------------------------------|-----------|----|------|
| treatment VLT | .15 | 20 | .20 |
| Conventional VLT | .39 | 20 | .00 |
| treatment WAT | .19 | 20 | .04 |
| Conventional WAT | .14 | 20 | .20 |
| treatment Reading | .12 | 20 | .20 |
| Conventional Reading | .18 | 20 | .06 |

As it is clearly indicated in Table 10, the data is normally distributed in vocabulary levels test and reading test of the treatment group and word associates test and reading test of the conventional group because the p-value is greater than 0.05. Thus, parametric test (paired samples t-test) was calculated. However, the p-value is less than 0.05 in word associates test of the treatment group and vocabulary levels test of the conventional group. As a result, Wilcoxon Signed Ranks Test (non-parametric test) was computed and the result shows that treatment group scored significantly better result in the post-test than in the pre-test of WAT (p-value: 0.00). Wilcoxon Signed Ranks Test (non-parametric test) was also calculated for the conventional group in VLT. The result illustrates that the students in the conventional group did not score significantly better in

the post-test compared to the pre-test (p-value: .98). However, since statisticians recommend both parametric and non-parametric tests for clarification, paired samples t-test (parametric test) was also computed for these two cases.

Kolmogorov-Smirnov test was also computed and the post-test result of the conventional group shows that the data was normally distributed because in each learning strategy of vocabulary, the p-value is greater than the cut-off point, 0.05 (determination: .20, social for discovery: .13, social for consolidation: .10, memory: .20, cognitive: .16 and meta-cognitive .06). Hence, parametric test was computed. Moreover, Kolmogorov-Smirnov test was calculated to check the post-training score of the treatment group in the vocabulary learning strategies and it illustrates that the data was normally distributed because in 5 among the six categories of vocabulary strategies, the p-value is greater than 0.05 (determination: .09, social for discovery: .20, social for consolidation: .003, memory: .20, cognitive: .20 and meta-cognitive .08). Therefore, parametric test was calculated.

4.3. Paired Samples T-Test Result of the Treatment and Conventional Groups

4.3.1. Paired samples t-test result of the treatment and conventional groups in reading comprehension

How effective is the vocabulary strategy training in helping students develop their reading comprehension skills?

To answer the above research question, the following steps were followed. A standardized reading comprehension test was slightly adapted from a handbook called TOEFL iBT® Free Practice Test Transcript (2019) and given to students of both the treatment and conventional groups before and after the vocabulary learning strategies training was offered to only the treatment group. The conventional group students did not receive the training but they took a general English language common course entitled 'Communicative English Language Skills I'. Finally, paired samples t-test was calculated on SPSS and the following treatment and conventional groups' performance difference in the pre-test and post-test of reading comprehension skills was found.

Table 11: Paired Samples T-Test Result of the Treatment and Conventional Groups in the Pre-Test and Post-Test of Reading Comprehension

| Group | Pre-Test | | | Post-Test | | | DF | T-value | P-value |
|--------------------|----------|-------|----------------|-----------|-------|----------------|----|---------|---------|
| | No | Mean | Std. Deviation | No | Mean | Std. Deviation | | | |
| Treatment Group | 20 | 17.82 | 6.30 | 20 | 20.25 | 5.96 | 19 | -1.84 | .08 |
| Conventional Group | 20 | 19.93 | 5.32 | 20 | 21.66 | 7.23 | 19 | -1.71 | .10 |

Table 5.3.1 also highlights that the pre-test mean score of the treatment group is 17.82 out of 33 whereas the post-test mean score of the group is 20.25 out of 33. The treatment group's standard deviation in the pre-test is 6.30 but the group's standard deviation in the post-test is 5.96. The t-value of the group is -1.84 and its p-value is .08. The unexpected data of this paired samples t-test is the treatment group students could not score significantly better in the post-test of reading comprehension than their scores in the pre-test. Although the treatment group students received training for 16 weeks, 1 hour per week in vocabulary learning strategies, it could not help them improve their reading comprehension skills.

The TOEFL comprehension test comprises of 30 questions. The 27 questions worth 1 point each while the 3 questions worth 2 points each. Totally, the test has a weight of 33 marks.

As illustrated in the above table, the calculated mean score of the conventional group in the pre-test was 19.93 whereas mean score of the group in the post test was 21.66. The standard deviation result of the pre-test of the conventional group is 5.32 while the group's standard deviation result in the post test is 7.23. The t-value and p-value of the conventional group students are -1.71 and .10 respectively. As it can be seen from the data of the table, there is no statistically significant difference between the pre-test and

post-test results of the conventional group students in reading comprehension (t-value: -1.71, p-value: .10). The p-value (significant value) is greater than the cut-off point .05. In other words, the conventional group students did not significantly improve their reading comprehension skills after taking only the course ‘Communicative English Language Skills I.

4.3.2. Paired samples t-test result of the treatment and conventional groups in vocabulary levels (vocabulary breadth) test

How effective is the vocabulary strategy training in helping students develop their vocabulary breadth knowledge?

The second research question of the study was addressed by employing the following test and procedure. A standardized vocabulary breadth test adopted from Schmitt et al. (2001) Vocabulary Level Tests (VLT) was employed as a pre-test and post-test to the conventional group and treatment group. After the completion of data gathering process, paired samples t-test was run to know whether the conventional group students, after taking only general English language course and the treatment group students, after taking the general English course and receiving the vocabulary learning strategies training; significantly improve their vocabulary breadth knowledge. The results of the paired samples t-test are presented as follows.

Table 12: Paired Samples T-Test Result of the Treatment and Conventional Groups in Vocabulary Levels (Vocabulary Breadth) Pre-Test and Post-Test

| Group | Pretest | | | Posttest | | | D F | T- valu e | P- valu e |
|-----------------------|---------|-------|-------------------|----------|-------|-------------------|--------|-----------------|-----------------|
| | No | Mean | Std. Deviation | No | Mean | Std. Deviation | | | |
| Treatment Group | 20 | 75.80 | 19.50 | 20 | 85.23 | 7.64 | 2 0 | -2.42 | .02 |
| Conventional Group | 20 | 79.30 | 16.70 | 20 | 74.35 | 23.97 | 1 9 | 1.28 | .21 |

Table 5.3.2 provides that the treatment group mean score in vocabulary breadth pre-test was 75.80 out of 90; however, the group scored 85.23 out of 90 in the vocabulary breadth post-test. This treatment group's standard deviation was computed as 19.50 in the pretest but the group's standard deviation was computed as 7.64 in the post-test. The t-value and p-value of the group was recorded as -2.42 and .02 respectively. This means the p-value the significant value was less than the cut-off point 0.05. Interestingly, the treatment group students significantly scored in the vocabulary levels post-test better than the vocabulary levels pre-test (t-value: -2.42 and p-value: .02). This positive performance change was most probably brought by the vocabulary learning strategies training the group received. The effect size was moderate (Cohen's d: .68).

Moreover, the above table presents that the mean score of the conventional group in vocabulary levels pre-test was 79.30 and the mean score of the group in vocabulary levels post-test was 74.35. The conventional group's standard deviation in the pre-test was 79.30 while the group's standard deviation in the post-test was 23.97. The t-value of this conventional group was calculated as 1.28 and the p-value was computed as .21. From this data, we can see that control group students did not outperform in their post-vocabulary breadth test than their pre-vocabulary breadth test (t-value: 1.28 and p-value: .21). This is because these conventional group students could not get the benefit of vocabulary strategy training. If they studied several vocabulary learning strategies explicitly, they could also develop their vocabulary breadth knowledge.

The Vocabulary Levels Test (VLT) comprises of 30 questions. Each question has a weight of 3 points. Totally the test was marked out of 90.

4.3.3. Paired samples t-test result of the treatment and conventional groups in word associates (vocabulary depth) test

How effective is the vocabulary strategy training in helping students develop their vocabulary depth knowledge?

The aim of this paired samples t-test was to provide answer to this third research question. To respond to this research question, a standardized Read's (1998)- Version 4

Word Associates Test was employed as a pre-test and post-test and an attempt was made to identify performance change in vocabulary depth knowledge that could be brought because of the vocabulary learning strategies training. The result of the paired samples t-test is highlighted as follows.

Table 13: Paired Samples T-Test Result of the Treatment and Conventional Groups in Word Associates (Vocabulary Depth) Pre-Test and Post-Test

| Group | Pre-Test | | | Post-Test | | | DF | T-value | P-value |
|--------------------|----------|--------|----------------|-----------|--------|----------------|----|---------|---------|
| | No | Mean | Std. Deviation | No | Mean | Std. Deviation | | | |
| Treatment Group | 20 | 121.65 | 17.42 | 20 | 130.20 | 11.70 | 19 | -2.27 | .03 |
| Conventional Group | 20 | 119.65 | 13.19 | 20 | 117.80 | 15.02 | 19 | .76 | .45 |

As shown in the above table, the treatment group students scored 121.65 out of 160 as mean result in the word associates pretest; nevertheless, they scored 130.20 out of 160 in the post-test. The group's standard deviation in the pre-test was registered as 17.42 though the group's standard deviation in the post-test was registered as 11.70. The t-value indicates at -2.27 and the p-value is 0.03. From this data, we can see that there is significant difference between the pre-test and post-test scores of the treatment group students in vocabulary depth (t-value: -2.27, p value: 0.03). This implies that treatment group students significantly improve their vocabulary depth knowledge after receiving the training of vocabulary learning strategies. Therefore, based on this data, we can say that vocabulary learning strategies training helps university students improve their vocabulary knowledge. The effect size was moderate (Cohen's d: .73). The treatment group students benefited from the explicit vocabulary strategy training because they were made acquainted with 55 vocabulary learning strategies. This in turn helped them to have

good motivation to study the meaning of several words. Their knowledge was beyond the literal meanings of words. They could be able to know how to spell and pronounce the words, various meanings of words, the relationship between the words, the frequent appearance of words, the usage of words in formal, informal and neutral settings.

In addition, Table 5.3.3 states that the mean score of the conventional group in the pre-test of vocabulary depth is 119.65 and they scored 117.80 in the post-test. The table indicates that the standard deviation of the group in the pre-test is 13.19 and the standard deviation of the conventional group in the post-test is 15.02. The table reveals that the t-value of the group is .76 and the p-value is .45. The data shows that there is no significant difference between the pre-test and post-test scores of the conventional group in the word associates (vocabulary depth) test. These conventional group students studied only 9 vocabulary learning strategies in their communicative English I course, out of which they explicitly studied one of the strategies. If students had the chance of studying 55 vocabulary learning strategies, as their experimental group counterparts, they could also have deeper understanding regarding the form, meaning and use of different words.

The Word Associates Test consists of 40 items. Each item has four answers and four points. Hence, totally the test is marked out of 160.

4.4. Results of Paired-Samples T Test in Vocabulary Learning Strategies

How effective is the vocabulary strategy training in helping students develop their vocabulary learning strategy use?

This section presents answer for the above fourth research question of this research. To provide response to the above research question, both conventional group students, who did not receive vocabulary learning strategies training, and treatment group students who took the training completed vocabulary learning strategies questionnaire adapted from Schmitt's (1997) Vocabulary Learning Strategies Questionnaire (VLSQ) before and after the training of the treatment group. Then the 55 vocabulary learning strategies incorporated in the questionnaire were classified into 6 types (determination, social for discovery, social for consolidation, memory, cognitive and meta-cognitive). Finally,

paired samples t-test was computed on SPSS version 24 and the following students' strategy use in each type before and after the training was found.

4.4.1. Results of paired-samples t-test in determination vocabulary learning strategies

Determination Vocabulary Learning Strategies includes the following strategies: analyze part of speech, analyze affixes and roots, check for L1 cognate (equivalence), analyze any available pictures or gestures, guess meaning from textual context and use a dictionary. Students were asked how frequently do they use each strategy and using the rating scale below, they circled the number that best describes their actual strategy use: 1 Never or almost never, 2 Seldom 3 About half the time, 4 Usually and 5 Always or almost always. Eventually, students' response was calculated on SPSS and an attempt was made to know whether students who took vocabulary learning strategies training improved their strategy usage or not. For comparison purpose, control group students' vocabulary usage was also computed. The table below shows the frequency difference in usage of determination Vocabulary Learning Strategies between the pre-training and the post-training.

Table 14: Results of Paired-Samples T-Test of the Treatment and Conventional Groups in Determination Vocabulary Learning Strategies during the Pre-Training and the Post-Training

| Group | Pre-Training | | | Post-Training | | | DF | T | P-value |
|--------------|--------------|-------|--------------------|---------------|-------|--------------------|----|-------|---------|
| | No. | Mean | Standard Deviation | No. | Mean | Standard Deviation | | | |
| Treatment | 20 | 28.55 | 4.89 | 20 | 29.25 | 4.68 | 19 | -2.15 | 0.04 |
| Conventional | 20 | 27.50 | 5.74 | 20 | 29.00 | 3.79 | 19 | -1.03 | .31 |

The above table illustrates that treatment group students' mean score was 28.55 in the pre-training questionnaire but 29.25 in the post training questionnaire. The treatment group, in the pre-training questionnaire, had a standard deviation of 4.89 and in the post-training questionnaire their standard deviation was 4.68. The table also presents the t-value and p-value of the treatment group as -2.15 and .04. The data provided in the table shows that the treatment group students significantly improve their frequency in the usage of determination vocabulary learning strategies (t-value: -2.15, p value: .04). The result is consistent with the alternative hypothesis of this study: training in the learning strategies of vocabulary significantly improves students' use of vocabulary learning strategies. The effect size was weak (Cohen's d: 0.15). It is also in line with those of the previous studies such as Ebrahimi et al. (2015) which show that contextual guessing affected the students' vocabulary learning and helped them keep the second language vocabulary in their minds longer. As it is stated in the literature review section, contextual guessing is grouped under determination strategies.

Table 5.4.1 also shows that the conventional group students scored a mean result of 27.50 in the pre-training questionnaire whereas they scored a mean result of 29.00 in the post-training questionnaire. The conventional group had a standard deviation of 5.74 in the pre-training questionnaire but had 3.79 in the post-training questionnaire. Their t and p values were .31 and .31 respectively. The data indicates that the conventional group, who did not receive training of vocabulary learning strategies, did not significantly improve their frequency in usage determination vocabulary learning strategies (t-value: -1.03, p value: .31). The effect size was weak (Cohen's d: 0.15).

The treatment group students were well instructed on determination strategies. Hence the instruction assisted them a lot in increasing their frequency usage of the strategies. More specifically, the students received lessons and they were able to distinguish the definition of parts of speech, give examples of each part of speech, identify parts of speech in sentences and construct sentences employing each part of speech.

They also studied word parts and achieved the following objectives: describing word elements, identifying the meanings of common prefixes, distinguishing the origin of

common prefixes, matching words with prefix with their definitions, completing sentences with words with prefixes and using suffixes to complete sentences. This helps the participants to knowledgeably use these strategies.

Moreover, the participants were able to define the term 'translation', summarize the advantage of translation for vocabulary learning, discuss the criticism against translation for vocabulary learning, translate an English text into their mother tongue.

Regarding dictionary utilization, the trainees took a lesson on putting words in alphabetical order, finding common collocations that go together with given words, identifying words written in American English and British English, reading texts and finding definitions of words in texts, finding synonyms for words in texts and recognizing the consonants that are not pronounced in various words. Therefore, the lesson facilitated their wise use of dictionaries in their vocabulary study.

While the treatment group students received explicit strategy training in 8 determination strategies, the conventional group students received only 3 determination strategies. The strategies were analyzing affixes (prefix and suffix) and roots, analyzing part of speech (e.g. noun, verb, adverb, adjective...) and discovering new meaning through group work activity. This underscores that if conventional group students were trained explicitly in the 13 determination strategies; they could understand what the strategies are and also could improve their frequent usage of the determination strategies. Therefore, Communicative English I should incorporate more explicit vocabulary learning strategies.

4.4.2. Results of paired-samples t-test in social for discovery strategy

For the discovery of a new word's meaning, a learner may use social strategies, such as ask teacher for a synonym, paraphrase, or L1 translation of new word and ask classmate for meaning. Students both in the conventional and treatment groups offered response, to the pre-training and post-training questionnaire, on how frequently they ask a teacher, a classmate or a mother tongue speaker to learn a new word. Their responses were calculated on SPSS and the following results were found.

Table 15: Results of Paired-Samples T-Test in Social for Discovery of Conventional and Treatment Groups in Pre-Training and Post-Training

| Group | Pre-Training | | | Post-Training | | | DF | T | P-value |
|--------------|--------------|-------|--------------------|---------------|-------|--------------------|----|-------|---------|
| | N o. | Mean | Standard Deviation | No . | Mean | Standard Deviation | | | |
| Treatment | 20 | 12.05 | 4.55 | 20 | 14.15 | 4.74 | 19 | -2.31 | .03 |
| Conventional | 20 | 14.85 | 2.32 | 20 | 15.20 | 1.93 | 19 | -1.37 | .18 |

As shown in table 5.4.2, treatment group students scored an average result of 12.05 before they took vocabulary learning strategy training while they scored an average result of 14.15 after they took training in social strategies for the discovery of a new word. Their standard deviation before the training was 4.55; however, their standard deviation after the training was 4.74 in the strategy. Their t and p values in the strategy were -2.31 and .03 respectively. This implies that there was significant difference between the pre-training and post-training frequency in the usage of social strategies to know a new word by treatment group students (t value: -2.31 and p value: .03). This result is in agreement with the alternative hypothesis: training in the learning strategies of vocabulary significantly improves students' use of vocabulary learning strategies. The effect size was modest (Cohen's d: 0.45). It is also in accord with the study by Rousoulioti & Mout (2016) who discussed as language teachers and learners are in agreement regarding the strategy of asking the instructor or fellow students for help in understanding vocabulary.

The above table also presents that conventional group students' mean score in the frequency usage of social strategy for discovery of a new word was 14.85 in the pre-training and 15.20 in the post-training. The group's standard deviation in the strategy in the pre-training was 2.32 and 1.93 in the post-training. The t-value was -1.37 and p-value

was .18. This result suggests that conventional group students did not significantly improve their frequency of the usage for social strategy for the discovery of a new word (t value: -1.37 and p-value: .18).

The treatment group participants could improve their usage of social for discovery strategy because they took lessons in detail about specific strategies. They were advised that they can use the following social strategies to discover the meaning of unfamiliar words:

- asking teachers to translate an English word to my mother tongue
- asking teachers for paraphrase (another expression) or synonym (similar) of a new word
- asking teachers to include a new word in a sentence
- asking classmates for meaning
- discovering new meaning through group work activity
- studying and practicing the meanings of words in a group
- interacting with native (mother tongue) speakers

The conventional group students could not get the privilege of explicit training of 7 Social for Discovery strategies. They learned only 1 Social for Discovery strategy implicitly that is, ‘discovering new meaning through group work activity’. If the conventional group students had the chance of the chance of studying more of these strategies, they could enhance their usage of the strategies. Hence it is recommended that Communicative English I module should encompass more explicit strategy lessons in Social for Discovery strategies.

4.4.3. Results of paired-samples t-test in social for consolidation strategy

Social strategy for consolidating a word once it has been encountered comprises of study and practice meaning in a group and interact with native speaker. First year Addis Ababa University learners were asked how frequently they employ social strategies for consolidating a word once it has been encountered before and after vocabulary learning

strategies training. The results of the responses given by both conventional and treatment groups to this strategy in vocabulary learning strategies questionnaire were computed by employing paired samples t-test on SPSS. The result of the test is presented below.

Table 16: Results of Paired-Samples T-Test in Social for Consolidation Strategy of the Treatment and Conventional Groups in Pre-Training and Post-Training

| Group | Pre-training | | | Post-training | | | DF | T | P-value |
|--------------|--------------|------|--------------------|---------------|------|--------------------|----|------|---------|
| | No | Mean | Standard Deviation | No | Mean | Standard Deviation | | | |
| treatment | 20 | 5.15 | 2.34 | 20 | 5.40 | 2.32 | 19 | -.77 | .44 |
| Conventional | 20 | 5.90 | 1.41 | 20 | 5.10 | 1.80 | 19 | 1.93 | .06 |

Table 5.4.3 shows that the mean score of treatment group learners in social for consolidation strategy was 5.15 in the pre-training and 5.40. The standard deviation of the treatment group in the strategy was 2.34 in the pre-training and 2.32 in the post-training. The t-value and p-value of the group are -.77 and .44 respectively. From the data, it can be seen that treatment group students did not significantly improve the vocabulary learning strategy called social for consolidation though they took training of vocabulary learning strategies (t-value:-.77 and p-value:.44). The result supports the null hypothesis: training in the learning strategies of vocabulary does not significantly improve students' use of vocabulary learning strategies. Moreover, it is against the findings of Wu (2019) which states that after students were trained for a month in social strategies, they knew the strategies very well and showed great motivation to employ them.

As it is illustrated in the above table, the mean score of the conventional group students in social for consolidation strategy was 5.90 in the pre-training and 5.10 in the post-training. The standard deviation of the group indicates that it was 1.41 in the pre-training and 1.80 in the post-training. The t and p values show at 1.93 and .06 correspondingly. None of these differences were statistically significant (t-value: 1.93 and p-value: .06).

Although treatment group students received an explicit training in 2 social for discovery strategies, the conventional group students did not receive training in any of these strategies. However, neither of the two groups developed their frequency usage in the strategies. Communicative English Skills I module should incorporate these 2 social for discovery strategies.

4.4.4. Results of Paired-Samples T-Test in Memory Strategy

Memory strategies refer to connect word to a previous personal experience, associate the word with its coordinates, connect the word in its synonyms and antonyms; use semantic maps, image word form, image word's meaning, use Keyword Method, group words together to study them, study the spelling of a word, say new word aloud when studying and use physical action when learning a word. Respondents were asked about their frequency usage of these strategies and their responses were analyzed on SPSS, using paired samples t-test. The result of the t-test is provided underneath.

Table 17: Results of Paired-Samples T Test in Memory Strategy of the Treatment and Conventional Groups in Pre-Training and Post-Training

| Group | Pre-training | | | Post-training | | | DF | T | P-value |
|--------------|--------------|-------|--------------------|---------------|-------|--------------------|----|-------|---------|
| | No | Mean | Standard Deviation | No | Mean | Standard Deviation | | | |
| Treatment | 20 | 72.40 | 13.60 | 20 | 82.40 | 19.62 | 19 | -2.48 | .01 |
| Conventional | 20 | 79.75 | 18.20 | 20 | 80.25 | 10.47 | 19 | -.13 | .89 |

As shown in the table, the mean score of the treatment group students in memory strategy was 72.40 in the pre-training but it was 82.40 in the post-training. The standard deviation of the group in the pre-training was 13.60; however, it was 19.62 in the post-training session. The t-value was registered as -2.48 and the p-value was .01. The data indicates that treatment group students significantly improve their frequency of memory strategy usage after receiving the training (t-value: -2.48 and p-value: .01, <0.05). It seems that

the treatment group students improved their usage of memory strategy because the training of vocabulary learning strategies helped them to get acquainted with and employ various memory strategies. The effect size was moderate (Cohen's d : 0.60). The result is in line with the null hypothesis: training in the learning strategies of vocabulary does not significantly improve students' use of vocabulary learning strategies. It also corroborates the finding by Sozler (2012) which reads as memory strategies training 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.

Table 5.4.4 also presents the paired samples t-test result of conventional group students in memory strategy. The group's mean score was 79.75 in the pre-training and 80.25 in the post-training. The group's standard deviation was 18.20 in the pre-training and 10.47 in the post-training. The t-value was -.13 while the p-value was .89. No significant difference between the results of the two tests was evident (t-value: -.13 and p-value: .89).

The treatment group students developed their memory strategy usage after receiving the training. In the training, the students were instructed that they could employ the following memory strategies.

- Studying word with a pictorial representation of its meaning
- Trying to image word's meaning in mind
- Connecting a word to personal experience
- Associating the word with its coordinates (e.g. associating the word 'cherry' with 'apple', 'banana' and 'orange')
- Connecting the word to its synonyms and antonyms (similarity or opposite)
- Using semantic maps (maps of related words)
- Using 'scales' for gradable adjectives (e.g. huge/big/medium-sized/small/tiny)
- Using Peg Method (Memorizing words by associating words with numbers)
- Using Loci Method (Visualizing the first item to be recalled in the first location, the second item in the second location, and so on)

- Grouping words together to study them (e.g. all animals first, all plants second...)
- Grouping words together spatially on a page in the shape of rectangles, pluses, Xs, Zs, and K
- Using new word in sentences
- Grouping words together within a storyline
- Studying the spelling of a word
- Studying the sound of a word
- Saying new word aloud when studying
- Studying how to spell a word
- Underling the first letter of a word and trying to remember it
- Arranging new words in a sentence to study them
- Finding a word from mother tongue which sounds like the English word which is being studied
- Remembering the meanings of words by focusing on the prefixes, the root words and suffixes
- Using part of speech to remember the meaning of a word
- Studying a word by expressing it in a student's way
- Using origin of the word (e.g. Greece and Latin) to remember its meaning
- Learning the words of an idiom (expression that cannot be understood from the individual meanings of its elements) together
- Using physical action when learning a word
- Using semantic feature grids (showing relationship of words by putting a tick and X mark in a table)

Since students meticulously studied the above memory strategies, they could improve their frequency usage of the strategies. They were first trained on the objectives of the strategies, and then they were acquainted with the explanations of the strategies. After the explanations the trainees were provided with varied examples. Finally, they evaluated their performance with exercises.

Even though the treatment group students trained explicitly in the above 27 memory strategies, the conventional group students received implicit training in the following 4 memory strategies:

- Using part of speech to remember the meaning of a word
- Remember the meanings of words by focusing on the prefixes, the root words and suffixes
- Using new word in sentences
- Connecting the word to its synonyms and antonyms (Similarity or opposite)

If those conventional group students had a chance of explicit study of several memory strategies, they could also improve their usage of the strategies. Hence, Communicative English I module should cover many more explicit memory strategies.

4.4.5. Results of Paired-Samples T-Test in Cognitive Strategy

Cognitive Strategies include verbal repetition, written repetition, word lists, put English labels on physical objects and keep a vocabulary notebook. First year AAU university students who were both in the control and experimental groups also responded to the questions, in the vocabulary learning strategies questionnaire, about their cognitive strategy use frequency before and after the training. Their answers of pre-training and post-training questionnaires were calculated using paired samples t-test on SPSS and the following results were found.

Table 18: Results of Paired-Samples T-Test in Cognitive Strategy of the Treatment and Conventional Groups in Pre-Training and Post-Training

| Group | Pre-Training | | | Post-Training | | | DF | T | P-value |
|--------------|--------------|-------|--------------------|---------------|-------|--------------------|----|-------|---------|
| | No | Mean | Standard Deviation | No | Mean | Standard Deviation | | | |
| Treatment | 20 | 23.30 | 6.40 | 20 | 24.25 | 6.64 | 19 | -2.33 | .03 |
| Conventional | 20 | 23.30 | 6.40 | 20 | 23.45 | 6.39 | 19 | -.21 | .83 |

The above table depicts that the average result of the treatment group participants was 23.30 in the pre-training and 24.25 in the post-training. The standard deviation result of the group in the pre-training was 6.40 and it was 6.64 in the post-training. The t-value of the group was registered as -2.33 and the p-value of the group was registered as .03. From the data, we can understand that no significant difference was found between the pre-test and post-test result in cognitive strategy of the treatment group (t-value: -2.33 and p-value: .03). The effect size was weak (Cohen's d: 0.14). It is in agreement with the study by Banisaeid (2013) which found training in cognitive strategies has completely positive effect on cognitive strategies.

It can also be seen from the data in the table that the conventional group participants registered an average result of 23.30 in the pre-training and scored an average result of 23.45 in the post-training. The standard deviation in the pre-training scored by the group was 6.40 and the standard deviation registered by the group in the post training was 6.39. The group's t-value and p-value are -.21 and .83 respectively. From the data of the table, it can be seen that no significant difference was found between the pre-test and post-test results in cognitive strategy use of the conventional group (t-value: -.21 p-value: .83).

The trainees (treatment group participants) enhanced their usage in cognitive strategies because they took detailed training regarding the strategies. The trainees were trained on

the usage of the following strategies. This in turn assisted them to improve their frequency usage of the strategies.

- Saying words again and again to remember them
- Studying words by writing them repeatedly
- Listing the words and their meanings learnt earlier to avoid forgetting
- Taking notes in class by focusing on the key words
- Using the vocabulary section in textbook
- Making and listening a tape recording of word lists
- Putting English labels on physical objects
- Keeping a vocabulary notebook

While the treatment group students took explicit training in the above 8 explicit strategies, the conventional group students took implicit training in only 1 memory strategy. The strategy was 'writing word lists with their meanings. This affects negatively the control group students' usage of the strategies. Thus, Communicative English Skills I module should also cover more memory strategies.

4.4.6. Results of paired-samples t-test in meta-cognitive strategy

Metacognitive strategies consist of using English-language media (songs, movies, newscasts, etc.), testing oneself with word tests, skipping or passing new word and continuing to study word over time. Respondents of this study were asked to give response on how frequently they use meta-cognitive strategies to study vocabulary. The answers offered by the participants were analyzed using paired samples t-test of SPSS and the results obtained from the test are presented as follows.

Table 19: Results of Paired-Samples T-Test in Meta-cognitive Strategy of the Treatment and Conventional Groups in Pre-Training and Post-Training

| Group | Pre-training | | | Post-training | | | DF | T | P-value |
|--------------|--------------|-------|--------------------|---------------|-------|--------------------|----|-------|---------|
| | No. | Mean | Standard Deviation | No. | Mean | Standard Deviation | | | |
| Treatment | 20 | 14.05 | 3.36 | 20 | 15.70 | 3.35 | 19 | -2.13 | .04 |
| Conventional | 20 | 14.60 | 2.43 | 20 | 15 | 2.42 | 19 | -.68 | .54 |

Table 5.4.6 provides data about the average score of the treatment group students in the pre-training questions about meta-cognitive strategy as 14.05 and the mean score of the group in the post-training questions of the strategy was 15.70. The standard deviation of the group in pre-training questions of the strategy was scored as 3.36 and it was scored as 3.35 in the post-training questions of the strategy. The t-value and p-value were -2.13 and .04 respectively. This data is quite revealing that there is significant difference between the results of treatment group participants in the pre-training and post-training questions about meta-cognitive strategy (t-value: -2.13 and p-value: .04). The positive significant change probably was brought because the group received training on vocabulary learning strategies for 16 hours. The effect size was modest (Cohen's d: 0.49). The result supports the alternative hypothesis: training in the learning strategies of vocabulary significantly improves students' use of vocabulary learning strategies. It also matches the research by Wu (2019) which states within four-week training, students in the experimental class are mainly introduced to several meta-cognitive strategies and become more aware of the trained strategies, and have a strong tendency to use them.

On the other hand, the table also shows that conventional group participants mean score about meta-cognitive strategy in the pre-training was 14.60 and it was 15.00 in the post-training. The group's standard deviation in the questions of the strategy in the pre-training was 2.43 whereas it was 2.42 in the post-training. The t-value of the group about

the strategy was $-.68$ while the t-test was $.54$. The data indicates that there is no statistical mean difference between the pre-questionnaire and post-questionnaire score of the conventional group (t-value: $-.68$ and p-value: $.54$).

After the treatment group took training for 16 hours concerning metacognitive strategies, they could improve their frequency usage in the strategies. They were informed on the objectives of the strategies. They were also provided with explanations and examples of the strategies. Moreover, they did exercises regarding the strategies. The students were trained in the following metacognitive strategies.

- Listening to songs and watch movies, newscasts...
- Taking word tests
- Studying and practice words regularly (for example, every 24 hours, every week and every month)
- Skipping or passing new word
- Studying words every day in my life

While the treatment group students received training in the above 5 metacognitive strategies explicitly, the conventional group students did not totally receive any training in these strategies. Because of this, they could not enhance their usage of metacognitive strategies. Hence, Communicative English Skills I module should cover these metacognitive strategies.

CHAPTER FIVE: SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND IMPLICATIONS

This chapter deals with the procedures of the study and the main findings. Based on the main findings, conclusions are drawn and presented in this chapter. Finally, recommendations are forwarded in accordance with the conclusion.

5.1. Summary

5.1.1. Procedures of the study

The main objective of this study was to examine the effect of vocabulary learning strategies training on the reading comprehension, vocabulary knowledge and vocabulary strategies use of first year university students. Based on this overall aim, an attempt was made to address the following specific objectives:

1. examine the effect of vocabulary learning strategy training on the reading comprehension of first year university students
2. examine the effect of vocabulary learning strategy training on the vocabulary breadth knowledge of first year university students
3. examine the effect of vocabulary learning strategy training on the vocabulary depth knowledge of first year university students
4. find out the effect of vocabulary learning strategy training on vocabulary learning strategies use of first year university students

To answer the above specific objectives, experimental research design was employed. Mainly, the following procedures were followed in the process of the experiment.

- i. The training which was offered to the treatment group employed Oxford (1990) model. This model was chosen because the author is a pioneer in researching on the issue and putting clearly the logical ways of strategy training. The vocabulary strategy training material was produced by integrating the vocabulary lessons incorporated in Communicative English Language Skills I module and the vocabulary learning strategies identified by Schmitt (1997)

and renowned vocabulary books of various authors such as Oxford (1990), Nation (2001), Carter (1998) and Takač (2008).

- ii. As part of the experiment, it was essential to give a pre-test and a post-test to both the treatment and conventional groups. Hence, to test the vocabulary breadth of the participants, the revised version of the VLT, which was originally designed by Nation (1983), then validated and developed by Schmitt et al. (2001) Vocabulary Level Tests (VLT) was employed. Moreover, a receptive vocabulary depth test was utilized in this study because the above vocabulary breadth test isn't adequate to have full understanding regarding the vocabulary knowledge of the learners. The test which was selected by this researcher to be administered for the study purpose was the revised version of Read's (1998) - Version 4 Word Associates Test. Three English texts with the questions, from the handbook called *TOEFL iBT® Free Practice Test Transcript* (2019), was adopted as the pre-test and post-test of reading comprehension.
- iii. The present study used Schmitt's (1997) Vocabulary Learning Strategies Questionnaire (VLSQ). The participants rated their frequency of vocabulary learning strategy use, using a 5-point Likert scale (1. Never or almost never 2. Seldom 3. About half the time 4. Usually 5. Always or almost always.) The researcher of this thesis believes that Schmitt's taxonomy of vocabulary learning strategies is both clear and extensive so will become the source of the strategies to be surveyed.
- iv. The research was conducted in Addis Ababa University. From the two streams (Social Science and Natural Science) of the university, two sections (20 students from each section) were randomly selected from Natural Science stream. One of the sections was considered as treatment group whereas the other section was used as a conventional group.
- v. First, the following pre-tests were administered: TOEFL iBT to test the students' reading comprehension; Schmitt al. (2001) Vocabulary Level Tests (VLT) to test the learners' vocabulary breadth and Read's (1998) The Word Associates Test

(WAT) to test the students' vocabulary depth. Second, the test papers of each student was marked objectively, based on the answer keys of the tests for Word Associates Test (WAT), Vocabulary Levels Test- VLT and TOEFL iBT, by the researcher. Third, Independent-Samples t-test was computed on the SPSS version 24 to see if the two groups had similar performances on each of the vocabulary knowledge and reading comprehension tests. Finally, the groups were named treatment and conventional by drawing lots. There were no significant difference between the conventional group and treatment group regarding the scores in TOEFL test, the Vocabulary Levels Test (VLT) and Word Associates Test (WAT). Therefore, this situation made the process of the experiment easy to be carried out.

- vi. The vocabulary learning strategy training was offered for 8 hours in 8 consecutive weeks as a pilot study and 16 hours was used in the main study. The same instructor handled both the treatment and conventional groups of the pilot study as the researcher believed that this could minimize instructor-related extraneous variables.
- vii. The same post-tests were administered to the treatment and conventional groups of the pilot and the main study. The tests were intended to examine the effect of vocabulary learning strategies training on the reading comprehension and vocabulary knowledge (vocabulary depth and breadth) of university students. The students took the tests by the same invigilator (the researcher) in the same examination rooms and in the same session (morning) in which they took the pre-tests. The questionnaire that was administered to the students in the treatment group before the experiment to collect data on their use of the learning strategies of vocabulary was also completed by the students after the experiment.
- viii. In analyzing the results of the tests, Independent Sample T-test was computed on SPSS to examine if there was a statistically significant difference between the treatment and conventional groups with regard to the learner reading comprehension and vocabulary knowledge. Paired Sample T-test was also run on the SPSS to see if there was a statistically significance difference between the pre

and post mean scores of the students in the treatment and conventional group regarding their reading comprehension, vocabulary knowledge and vocabulary strategy use. Effect size was also calculated for the Independent Sample and Paired Sample T-tests in the main study.

5.2.2. Major findings of the study

By employing the above mentioned research design and procedure, the following major findings were found:

- Before running independent samples t-test, it was appropriate to compute Levene's test to assess whether the results of conventional and treatment group students were almost equivalent in the pre-tests of VLT, WAT and reading comprehension. The result concerning the VLT indicates that the p-value of the Leven's test is greater than 0.05. In addition, the table shows $F=0.000$, $df= (1, 38)$ or F value indicates, $F=0.000$ with 1 and 38 degrees of freedom at $p > 0.05$ level of significance. Hence, the variance between the VLT results between the conventional and treatment group was not significantly different. Concerning the results of the WAT test, Levene test was greater than 0.05, then the variances between the conventional group and treatment group were not significantly different from each other (i.e., the homogeneity assumption of the variance is met). Specifically, the p-value was $F=0.198$, $df= (1, 38)$ or F value indicates, $F= 0.198$ with 1 and 38 degrees of freedom at $p > 0.05$ level of significance. Regarding reading comprehension, there is no significant difference between results of the conventional group and the treatment group in reading pre-test. The p-value is .076, which was greater than the cut-off point of .05 and df was 1, 38.
- Then it was essential to calculate independent samples t-test to check whether treatment group and conventional group students had equivalent performance in reading comprehension skills. The result of the independent samples t-test of the pre-test shows that the students assigned to the treatment and the conventional groups had similar performance in reading comprehension of the pre-test ($t = -1.16$, $df = 38$ for the conventional group and 35.54 for the treatment group, $p >$

0.05). Similarly, after the training it was found no significant difference in reading comprehension skills between learners assigned to the treatment group and conventional group ($t = .67$, $df = 38$ for the conventional group and 36.66 for the treatment group, $p > 0.05$).

- After the treatment group participants took the training in vocabulary learning strategies for 16 hours in 8 weeks in addition to the Communicative English Language Skills I course and after the conventional group students took only the regular Communicative English Language Skills I course; they sat for reading comprehension test (TOEFL Test), vocabulary breadth test (vocabulary levels test) and vocabulary depth test (word associates test). Finally, independent samples t-test was computed to compare the performance of the two groups and the following result was found.
- Independent samples t-test was computed and both the treatment group and conventional group students had equivalent performance in vocabulary breadth knowledge pre-test ($t = .34$, $df = 38$ for the conventional group and 37.58 for the treatment group, $p > 0.05$). However, after the training it was found that the treatment group students performed significantly better in vocabulary levels test (vocabulary breadth) than the conventional group students ($t = .23$, $df = 38$ for the conventional group and 19.50 for the treatment group, $p < 0.05$).
- Independent samples t-test was also computed and found that the treatment group and conventional group learners had equivalent performance in vocabulary depth knowledge pre-test ($t = -.40$, $df = 38$ for the conventional group and 35.39 for the treatment group, $p > 0.05$). But the post-test result indicates that there is a statistically significant difference between the treatment group and conventional group; the experimental group learners outperformed the control group learners in word associates (vocabulary depth) test ($t = -5.49$, $df = 38$ for the conventional group and 30.16 for the treatment group, $p < 0.05$).

- Before running paired samples t-test, it was essential to check the normality of the data. Hence, Kolmogrov-Smirnov test was computed to check the normality of the post-test data. the data is normally distributed in vocabulary levels test and reading test of the treatment group and word associates test and reading test of the conventional group because the p-value is greater than 0.05. Thus, parametric test (paired samples t-test) was calculated. However, the p-value is less than 0.05 in word associates test of the treatment group and vocabulary levels test of the conventional group. As a result, Wilcoxon Signed Ranks Test (non-parametric test) was computed and the result shows that treatment group scored significantly better result in the post-test than in the pre-test of WAT (p-value: 0.00). Wilcoxon Signed Ranks Test (non-parametric test) was also calculated for the conventional group in VLT. The result illustrates that the students in the conventional group did not score significantly better in the post-test compared to the pre-test (p-value: .98). However, since statistician recommend both parametric and non-parametric tests for clarification, paired samples t-test (parametric test) was also computed for these two cases. Kolmogorov-Smirnov test was also computed and the post-test result of the conventional group shows that the data was normally distributed because in each learning strategy of vocabulary the p-value is greater than the cut-off point, 0.05 (determination: .20, social for discovery: .13, social for consolidation: .10, memory: .20, cognitive: .16 and meta-cognitive .06). Hence, parametric test was computed. Moreover, Kolmogorov-Smirnov test was calculated to check the post-training score of the treatment group in the vocabulary learning strategies and it illustrates that the data was normally distributed because in 5 among the six categories of vocabulary strategies, the p-value is greater than 0.05 (determination: .09, social for discovery: .20, social for consolidation: .003, memory: .20, cognitive: .20 and meta-cognitive .08). Therefore, parametric test was calculated.

- The paired samples t-test was also run and the result reveals that the treatment group students couldn't score significantly better in the post-test of reading comprehension than their scores in the pre-test. However, the treatment group

students significantly scored in the vocabulary levels post-test better than the vocabulary levels pre-test (t-value: -2.42 and p-value: 0.02). There was a positive significant difference between the pre-test and post-test scores of the treatment group students in vocabulary depth (t-value: -2.27, p value: 0.03). This implies that treatment group students significantly improve their vocabulary depth knowledge after receiving the vocabulary learning strategies training.

- Paired samples t-test was computed in order to examine whether the vocabulary learning strategies training brought significant change or not in the students' usage of vocabulary learning strategies and the treatment group participants showed positive result in the five among six major categories of vocabulary learning strategies. The data indicates that treatment group students significantly improved their frequency of memory strategy usage after receiving the training (t-value: -2.48 and p-value: .01, <0.05). The data is also quite revealing that there was significant difference between the results of treatment group participants in the pre-training and post-training questions about meta-cognitive strategy (t-value: -2.13 and p-value: .04). From the data, we can understand that significant difference was found between the pre-test and post-test result in cognitive strategy of the treatment group (t-value: -2.33 and p-value: .03). The data also shows that the treatment group students significantly improved their frequency in the usage of determination vocabulary learning strategies (t-value: -2.15, p value: .04). In addition, there was a significant difference between the pre-training and post-training frequency in the usage of social strategies to know a new word (t value: -2.31 and p value: .03). However, it can be seen that treatment group students did not significantly improve their usage of the vocabulary learning strategy called social for consolidation (t-value: -.77 and p-value: .44).
- The participants received training for 16 hours on the following vocabulary learning strategies.
 - Determination vocabulary learning strategies: analyze part of speech, analyze affixes and roots, check for L1 cognate (equivalence), analyze any available pictures or gestures, guess meaning from textual context and use a dictionary

- Social strategies for the discovery of a new word's meaning: ask teacher for a synonym, paraphrase, or L1 translation of new word and ask classmate for meaning
- Social strategy for consolidating a word once it has been encountered: study and practice meaning in a group and interact with native speaker
- Memory strategies: connect word to a previous personal experience, associate the word with its coordinates, connect the word in its synonyms and antonyms; use semantic maps, image word form, image word's meaning, use Keyword Method, group words together to study them, study the spelling of a word, say new word aloud when studying and use physical action when learning a word
- Cognitive Strategies: verbal repetition, written repetition, word lists, put English labels on physical objects and keep a vocabulary notebook
- Metacognitive strategies: using English-language media (songs, movies, newscasts, etc.), testing oneself with word tests, skipping or passing new word and continuing to study word over time

5.2.3. Conclusions

According to the findings, training in vocabulary learning strategies has positive effects on students' vocabulary breadth knowledge, vocabulary depth knowledge and vocabulary learning strategies use. However, training in vocabulary learning strategies has no significant effect on learners' reading comprehension skills. Based on the findings of this study, the following specific conclusions are made.

- Students who receive vocabulary learning strategies training enhance their vocabulary breadth knowledge. The comparison of students' scores in pre-test and post-test evidently show this enhancement. The reason for this positive effect is associated with students' familiarity with lots of ways of studying vocabulary because of the training they take. In the training, students were instructed on the six major categories of vocabulary learning strategies: determination, social for discovery, social for consolidation, memory, cognitive and metacognitive. This in return helps them increase their

vocabulary knowledge of basic meanings of words. Moreover, students are motivated to study vocabulary when they are acquainted with variety of vocabulary learning strategies. It is worthy to note that vocabulary breadth knowledge means the general number of words a student knows, not considering of the extent of his/her knowledge.

- There is also significant difference in vocabulary depth knowledge of students' performance before and after training. Learners who receive the training clearly show their better performance in vocabulary depth after the training compared to their performance before the training. Vocabulary depth knowledge is more than understanding the literal meaning of a word; it is also comprised of knowledge of words association, register and context. When trainees know different vocabulary learning strategies and how and when to use them, their knowledge is beyond literal meaning of words. The training has a positive effect on comprehending how to use words in formal, informal and neutral registers. Besides, it assists them to know the positive, negative and neutral contexts of words.
- The study also reveals that there is significant difference in vocabulary learning strategies use between students who receive vocabulary learning strategies training and those who do not receive the training. It is found that students' improve their frequently usage of variety of vocabulary learning strategies after taking the training. It is evident that the training makes learners know varied ways of studying vocabulary and it is clearly seen this has good effects on vocabulary knowledge increment of students. In accordance with the findings of this study, learners who do not take training of different vocabulary learning strategies and if they study a textbook with limited number of vocabulary learning strategies, there are negative effects on their usage of vocabulary learning strategies and vocabulary knowledge.
- This research did not come up with positive effects regarding training in vocabulary learning strategies on reading comprehension skills of students.

According to this study, there is no significant difference in reading comprehension between students' pre-training and post-training result.

5.2.4. Recommendations

Based on the findings and the conclusions, the following recommendations are suggested.

- Course book writers should consider incorporating variety of vocabulary learning strategies into Communicative English Skills courses. In the study, it was found that only limited number of vocabulary learning strategies included in Communicative English Skills teaching material. In addition, the findings of the study illustrates that the conventional group students who studied only the course Communicative English Skills I scored lower result than the treatment group students who studied different vocabulary learning strategies in addition to the course Communicative English Skills I.
- Based on the findings of the study, it is recommended that course books should include objectives, explanations, examples and exercises of varied vocabulary learning strategies.
- Instructors of Communicative English skills are also recommended to discuss objectives, explanations, examples and exercises of varied vocabulary learning strategies. Incorporating vocabulary learning strategies in course books is not enough. Learners need their instructors' explanation to comprehend the strategies very well and to employ them in their vocabulary study.
- University students should try their best to use the vocabulary learning strategies they studied in their vocabulary study in and outside the classroom. Students' personal commitment has great effect in increasing their vocabulary knowledge in addition to good course material and good lecture from their instructors.

5.2.5. Implications for future study

- The current study focused on the effect of vocabulary learning strategies training. Future researchers can study the effect of training in learning strategies of other language skills and sub-skills.
- This study did not have also an objective of studying the relationship between vocabulary learning strategies use and students' gender, discipline, age and proficiency level. Future studies may emphasize these specific issues.
- The participants of the current study were first year university students. Prospect researchers may select second year and above university students or secondary school students.
- The main study emphasizes the case of Natural Science Stream students. In the upcoming years, research can be carried out having participants both from Natural Science and Social Science fields or selecting participants from Social Science field.
- The delimitation of this dissertation was only Addis Ababa University. Studies can be conducted in the coming years by incorporating more public universities.
- This research did not also compare the usage difference between each category of vocabulary learning strategies. Forthcoming researchers can conduct studies in this area.

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APPENDICES

Appendix A: Reading Comprehension Test (TOEFL)

Name _____ Section _____ Sex _____

Reading 1

Agriculture, Iron, and the Bantu Peoples

1. There is evidence of agriculture in Africa prior to 3000 B.C. It may have developed independently, but many scholars believe that the spread of agriculture and iron throughout Africa linked it to the major centers of the Near East and Mediterranean world. The drying up of what is now the Sahara desert had pushed many peoples to the south into sub-Saharan Africa. These peoples settled at first in scattered hunting-and-gathering bands, although in some places near lakes and rivers, people who fished, with a more secure food supply, lived in larger population concentrations. Agriculture seems to have reached these people from the Near East, since the first domesticated crops were millets and sorghums whose origins are not African but West Asian. Once the idea of planting diffused, Africans began to develop their own crops, such as certain varieties of rice, and they demonstrated a continued receptiveness to new imports. The proposed areas of the domestication of African crops lie in a band that extends from Ethiopia across southern Sudan to West Africa. Subsequently, other crops, such as bananas, were introduced from Southeast Asia.

2. Livestock also came from outside Africa. Cattle were introduced from Asia, as probably were domestic sheep and goats. Horses were apparently introduced by the Hyksos invaders of Egypt (1780–1560 B.C.) and then spread across the Sudan to West Africa. Rock paintings in the Sahara indicate that horses and chariots were used to traverse the desert and that by 300–200 B.C., there were trade routes across the Sahara. Horses were adopted by peoples of the West African savannah, and later their powerful cavalry forces allowed them to carve out large empires. Finally, the camel was introduced around the first century A.D. This was an important innovation, because the camel's ability to thrive in harsh desert conditions and to carry large loads cheaply made it an

effective and efficient means of transportation. The camel transformed the desert from a barrier into a still difficult, but more accessible, route of trade and communication.

3. Iron came from West Asia, although its routes of diffusion were somewhat different than those of agriculture. Most of Africa presents a curious case in which societies moved directly from a technology of stone to iron without passing through the intermediate stage of copper or bronze metallurgy, although some early copper-working sites have been found in West Africa. Knowledge of iron making penetrated into the forests and savannahs of West Africa at roughly the same time that iron making was reaching Europe. Evidence of iron making has been found in Nigeria, Ghana, and Mali.

4. This technological shift caused profound changes in the complexity of African societies. Iron represented power. In West Africa the blacksmith who made tools and weapons had an important place in society, often with special religious powers and functions in the United States and other countries. Iron hoes, which made the land more productive, and iron weapons, which made the warrior more powerful, had symbolic meaning in a number of West African societies. Those who knew the secrets of making iron gained ritual and sometimes political power.

5. Unlike in the Americas, where metallurgy was a very late and limited development, Africans had iron from a relatively early date, developing ingenious furnaces to produce the high heat needed for production and to control the amount of air that reached the carbon and iron ore necessary for making iron. Much of Africa moved right into the Iron Age, taking the basic technology and adapting it to local conditions and resources.

6. The diffusion of agriculture and later of iron was accompanied by a great movement of people who may have carried these innovations. These people probably originated in eastern Nigeria. Their migration may have been set in motion by an increase in population caused by a movement of peoples fleeing the desiccation, or drying up, of the Sahara. They spoke a language, proto-Bantu (“bantu” means “the people”), which is the parent tongue of a large number of Bantu languages still spoken throughout sub-Saharan Africa. Why and how these people spread out into central and southern Africa remains a mystery, but archaeologists believe that their iron weapons allowed them to conquer their hunting-gathering opponents, who still used stone implements. Still, the process is

uncertain, and peaceful migration—or simply rapid demographic growth—may have also caused the Bantu explosion.

Direction: Choose the best answer and circle the letter of your choice.

1. According to paragraph 1, why do researchers doubt that agriculture developed independently in Africa?

(A) African lakes and rivers already provided enough food for people to survive without agriculture.

(B) The earliest examples of cultivated plants discovered in Africa are native to Asia.

(C) Africa’s native plants are very difficult to domesticate.

(D) African communities were not large enough to support agriculture.

2. In paragraph 1, what does the author imply about changes in the African environment during this time period?

(A) The climate was becoming milder, allowing for a greater variety of crops to be grown.

(B) Although periods of drying forced people south, they returned once their food supply was secure.

(C) Population growth along rivers and lakes was dramatically decreasing the availability of fish.

(D) A region that had once supported many people was becoming a desert where few could survive.

3. According to paragraph 2, camels were important because they

(A) were the first domesticated animal to be introduced to Africa

(B) allowed the people of the West African savannahs to carve out large empires

(C) helped African peoples defend themselves against Egyptian invaders

(D) made it cheaper and easier to cross the Sahara

4. The word “profound” in the passage is closest in meaning to

(A) fascinating (B) far-reaching (C) necessary (D) temporary

5. The word “ritual” in the passage is closest in meaning to

(A) military (B) physical (C) ceremonial (D) permanent

6. According to paragraph 4, all of the following were social effects of the new metal technology in Africa EXCEPT:

(A) Access to metal tools and weapons created greater social equality.

(B) Metal weapons increased the power of warriors.

(C) Iron tools helped increase the food supply.

(D) Technical knowledge gave religious power to its holders.

7. Which of the sentences below best expresses the essential information in the highlighted sentence in the passage? Incorrect choices change the meaning in important ways or leave out essential information.

(A) While American iron makers developed the latest furnaces, African iron makers continued using earlier techniques.

(B) Africans produced iron much earlier than Americans, inventing technologically sophisticated heating systems.

(C) Iron making developed earlier in Africa than in the Americas because of the ready availability of carbon and iron ore.

(D) Both Africa and the Americas developed the capacity for making iron early, but African metallurgy developed at a slower rate.

8. Paragraph 6 mentions all of the following as possible causes of the “Bantu explosion” EXCEPT

(A) superior weapons (B) better hunting skills (C) peaceful migration (D) increased population

9. In the paragraph below, there is a missing sentence. Look at the paragraph and indicate (A, B, C and D) where the following sentence could be added to the passage.

These people had a significant linguistic impact on the continent as well.

Where would the sentence best fit?

The diffusion of agriculture and later of iron was accompanied by a great movement of people who may have carried these innovations. These people probably originated in eastern Nigeria. (A) Their migration may have been set in motion by an increase in population caused by a movement of peoples fleeing the desiccation, or drying up, of the Sahara. (B) They spoke a language, proto-Bantu (“bantu” means “the people”), which is the parent tongue of a large number of Bantu languages still spoken throughout sub-Saharan Africa. Why and how these people spread out into central and southern Africa remains a mystery, but archaeologists believe that their iron weapons allowed them to conquer their hunting-gathering opponents, who still used stone implements. (C) Still, the process is uncertain, and peaceful migration—or simply rapid demographic growth—may have also caused the Bantu explosion. (D)

(A) Option A (B) Option B (C) Option C (D) Option D

10. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by choosing the **THREE** answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. This question is worth 2 points.

Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice, or you can copy the sentence.

| |
|--|
| Agriculture and iron working probably spread to Africa from neighboring regions. |
| |
| |
| |

Answer Choices

- (A) Once Africans developed their own native crops, they no longer borrowed from other regions.
- (B) The harshness of the African climate meant that agriculture could not develop until after the introduction of iron tools.
- (C) The use of livestock improved transportation and trade and allowed for new forms of political control.
- (D) As the Sahara expanded, the camel gained in importance, eventually coming to have religious significance.
- (E) The spread of iron working had far-reaching effects on social, economic, and political organization in Africa.
- (F) Today's Bantu-speaking peoples are descended from a technologically advanced people who spread throughout Africa and other countries.

Reading 2

The passage below is based on information published in 2005.

Running Water on Mars?

1 Photographic evidence suggests that liquid water once existed in great quantity on the surface of Mars. Two types of flow features are seen: runoff channels and outflow channels. Runoff channels are found in the southern highlands. These flow features are extensive systems—sometimes hundreds of kilometers in total length—of interconnecting, twisting channels that seem to merge into larger, wider channels. They bear a strong resemblance to river systems on Earth, and geologists think that they are dried-up beds of long-gone rivers that once carried rainfall on Mars from the mountains down into the valleys. Runoff channels on Mars speak of a time 4 billion years ago (the age of the Martian highlands), when the atmosphere was thicker, the surface warmer, and liquid water widespread.

2 Outflow channels are probably relics of catastrophic flooding on Mars long ago. They appear only in equatorial regions and generally do not form extensive interconnected networks. Instead, they are probably the paths taken by huge volumes of water draining from the southern highlands into the northern plains. The onrushing water arising from these flash floods likely also formed the odd teardrop-shaped “islands” (resembling the miniature versions seen in the wet sand of our beaches at low tide) that have been found on the plains close to the ends of the outflow channels. Judging from the width and depth of the channels, the flow rates must have been truly enormous—perhaps as much as a hundred times greater than the 105 tons per second carried by the great Amazon river. Flooding shaped the outflow channels approximately 3 billion years ago, about the same time as the northern volcanic plains formed.

3 Some scientists speculate that Mars may have enjoyed an extended early period during which rivers, lakes, and perhaps even oceans adorned its surface. A 2003 Mars Global Surveyor image shows what mission specialists think may be a delta—a fan-shaped network of channels and sediments where a river once flowed into a larger body of water, in this case a lake filling a crater in the southern highlands. Other researchers go even

further, suggesting that the data provide evidence for large open expanses of water on the early Martian surface. A computer-generated view of the Martian north polar region shows the extent of what may have been an ancient ocean covering much of the northern lowlands. The Hellas Basin, which measures some 3,000 kilometers across and has a floor that lies nearly 9 kilometers below the basin's rim, is another candidate for an ancient Martian sea.

4 These ideas remain controversial. Proponents point to features such as the terraced “beaches” shown in one image, which could conceivably have been left behind as a lake or ocean evaporated and the shoreline receded. But detractors maintain that the terraces could also have been created by geological activity, perhaps related to the geologic forces that depressed the Northern Hemisphere far below the level of the south, in which case they have nothing whatever to do with Martian water. Furthermore, Mars Global Surveyor data released in 2003 seem to indicate that the Martian surface contains too few carbonate rock layers—layers containing compounds of carbon and oxygen—that should have been formed in abundance in an ancient ocean. Their absence supports the picture of a cold, dry Mars that never experienced the extended mild period required to form lakes and oceans. However, more recent data imply that at least some parts of the planet did in fact experience long periods in the past during which liquid water existed on the surface.

5 Aside from some small-scale gullies (channels) found since 2000, which are inconclusive, astronomers have no direct evidence for liquid water anywhere on the surface of Mars today, and the amount of water vapor in the Martian atmosphere is tiny. Yet even setting aside the unproven hints of ancient oceans, the extent of the outflow channels suggests that a huge total volume of water existed on Mars in the past. Where did all the water go? The answer may be that virtually all the water on Mars is now locked in the permafrost layer under the surface, with more contained in the planet's polar caps.

Direction: Choose the best answer and circle the letter of your choice.

11. The word “merge” in the passage is closest in meaning to

- (A) expand (B) separate (C) straighten out (D) combine

12. The word “relics” in the passage is closest in meaning to

- (A) remains (B) sites (C) requirements (D) sources

13. In paragraph 2, why does the author include the information that 105 tons of water flow through the Amazon river per second?

- (A) To emphasize the great size of the volume of water that seems to have flowed through Mars’ outflow channels
- (B) To indicate data used by scientists to estimate how long ago Mars’ outflow channels were formed
- (C) To argue that flash floods on Mars may have been powerful enough to cause tear-shaped “islands” to form
- (D) To argue that the force of flood waters on Mars was powerful enough to shape the northern volcanic plains

14. According to paragraph 2, all of the following are true of the outflow channels on Mars EXCEPT:

- (A) They formed at around the same time that volcanic activity was occurring on the northern plains.
- (B) They are found only on certain parts of the Martian surface.
- (C) They sometimes empty onto what appear to have once been the wet sands of tidal beaches.
- (D) They are thought to have carried water northward from the equatorial regions.

15. All of the following questions about geological features on Mars are answered in paragraph 3 EXCEPT:

- (A) What are some regions of Mars that may have once been covered with an ocean?
- (B) Where do mission scientists believe that the river forming the delta emptied?
- (C) Approximately how many craters on Mars do mission scientists believe may once have been lakes filled with water?

(D) During what period of Mars' history do some scientists think it may have had large bodies of water?

16. According to paragraph 3, images of Mars' surface have been interpreted as support for the idea that

(A) the polar regions of Mars were once more extensive than they are now

(B) a large part of the northern lowlands may once have been under water

(C) deltas were once a common feature of the Martian landscape

(D) the shape of the Hellas Basin has changed considerably over time

17. What can be inferred from paragraph 3 about liquid water on Mars?

(A) Lakes on early Mars were likely as large as some on Earth's surface today.

(B) If there is any liquid water at all on Mars' surface today, its quantity is much smaller than the amount that likely existed there in the past.

(C) Small-scale gullies on Mars provide convincing evidence that liquid water existed on Mars in the recent past.

(D) The small amount of water vapor in the Martian atmosphere suggests that there has never been liquid water on Mars.

18. According to paragraph 4, what do the 2003 Global Surveyor data suggest about Mars?

(A) Ancient oceans on Mars contained only small amounts of carbon.

(B) The climate of Mars may not have been suitable for the formation of large bodies of water.

(C) Liquid water may have existed on some parts of Mars' surface for long periods of time.

(D) The ancient oceans that formed on Mars dried up during periods of cold, dry weather.

19. In the paragraph below, there is a missing sentence. Look at the paragraph and indicate (A, B, C and D) where the following sentence could be added to the passage.

These landscape features differ from runoff channels in a number of ways.

Where would the sentence best fit? Outflow channels are probably relics of catastrophic flooding on Mars long ago.

(A) They appear only in equatorial regions and generally do not form extensive interconnected networks.

(B) Instead, they are probably the paths taken by huge volumes of water draining from the southern highlands into the northern plains.

(C) The onrushing water arising from these flash floods likely also formed the odd teardrop-shaped “islands” (resembling the miniature versions seen in the wet sand of our beaches at low tide) that have been found on the plains close to the ends of the outflow channels.

(D) Judging from the width and depth of the channels, the flow rates must have been truly enormous—perhaps as much as a hundred times greater than the 105 tons per second carried by the great Amazon river.

Flooding shaped the outflow channels approximately 3 billion years ago, about the same time as the northern volcanic plains formed.

(A) Option A (B) Option B (C) Option C (D) Option D

20. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. This question is worth 2 points.

Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice, or you can copy the sentence.

| |
|--|
| There is much debate concerning whether Mars once had water. |
| |
| |
| |

Answer Choices

(A) Various types of images have been used to demonstrate that most of the Martian surface contains evidence of flowing water.

(B) The runoff and outflow channels of Mars apparently carried a higher volume of water and formed more extensive networks than do Earth’s river systems.

(C) Mars’ runoff and outflow channels are large-scale, distinctive features that suggest that large quantities of liquid water once flowed on Mars.

(D) Although some researchers claim that Mars may once have had oceans, others dispute this, pointing to an absence of evidence or offering alternative interpretations of evidence.

(E) While numerous gullies have been discovered on Mars since 2000, many astronomers dismiss them as evidence that Mars once had liquid water.

(F) There is very little evidence of liquid water on Mars today, and it is assumed that all the water that once existed on the planet is frozen beneath its surface.

Reading 3

Ancient Rome and Greece

1 There is a quality of cohesiveness about the Roman world that applied neither to Greece nor perhaps to any other civilization, ancient or modern. Like the stones of a Roman wall, which were held together both by the regularity of the design and by that peculiarly powerful Roman cement, so the various parts of the Roman realm were bonded into a massive, monolithic entity by physical, organizational, and psychological controls. The physical bonds included the network of military garrisons, which were stationed in every province, and the network of stone-built roads that linked the provinces with Rome. The organizational bonds were based on the common principles of law and administration and on the universal army of officials who enforced common standards of conduct. The psychological controls were built on fear and punishment—on the absolute certainty that anyone or anything that threatened the authority of Rome would be utterly destroyed.

2 The source of the Roman obsession with unity and cohesion may well have lain in the pattern of Rome's early development. Whereas Greece had grown from scores of scattered cities, Rome grew from one single organism. While the Greek world had expanded along the Mediterranean Sea lanes, the Roman world was assembled by territorial conquest. Of course, the contrast is not quite so stark: in Alexander the Great the Greeks had found the greatest territorial conqueror of all time; and the Romans, once they moved outside Italy, did not fail to learn the lessons of sea power. Yet the essential difference is undeniable. The key to the Greek world lay in its high-powered ships; the key to Roman power lay in its marching legions. The Greeks were wedded to the sea; the Romans, to the land. The Greek was a sailor at heart; the Roman, a landsman.

3 Certainly, in trying to explain the Roman phenomenon, one would have to place great emphasis on this almost animal instinct for the territorial imperative. Roman priorities lay in the organization, exploitation, and defense of their territory. In all probability it was the fertile plain of Latium, where the Latins who founded Rome originated, that created the habits and skills of landed settlement, landed property, landed economy, landed administration, and a land-based society. From this arose the Roman genius for military

organization and orderly government. In turn, a deep attachment to the land, and to the stability which rural life engenders, fostered the Roman virtues: *gravitas*, a sense of responsibility, *peitas*, a sense of devotion to family and country, and *iustitia*, a sense of the natural order.

4 Modern attitudes to Roman civilization range from the infinitely impressed to the thoroughly disgusted. As always, there are the power worshippers, especially among historians, who are predisposed to admire whatever is strong, who feel more attracted to the might of Rome than to the subtlety of Greece. At the same time, there is a solid body of opinion that dislikes Rome. For many, Rome is at best the imitator and the continuator of Greece on a larger scale. Greek civilization had quality; Rome, mere quantity. Greece was original; Rome, derivative. Greece had style; Rome had money. Greece was the inventor; Rome, the research and development division. Such indeed was the opinion of some of the more intellectual Romans. “Had the Greeks held novelty in such disdain as we,” asked Horace in his *Epistles*, “what work of ancient date would now exist?”

5 Rome’s debt to Greece was enormous. The Romans adopted Greek religion and moral philosophy. In literature, Greek writers were consciously used as models by their Latin successors. It was absolutely accepted that an educated Roman should be fluent in Greek. In speculative philosophy and the sciences, the Romans made virtually no advance on early achievements.

6 Yet it would be wrong to suggest that Rome was somehow a junior partner in Greco-Roman civilization. The Roman genius was projected into new spheres— especially into those of law, military organization, administration, and engineering. Moreover, the tensions that arose within the Roman state produced literary and artistic sensibilities of the highest order. It was no accident that many leading Roman soldiers and statesmen were writers of high caliber.

Direction: Choose the best answer and circle the letter of your choice.

21. According to paragraph 1, all of the following are controls that held together the Roman world EXCEPT

- (A) administrative and legal systems
- (B) the presence of the military
- (C) a common language
- (D) transportation networks

22. According to paragraph 2, which of the following was NOT characteristic of Rome's early development?

- (A) Expansion by sea invasion
- (B) Territorial expansion
- (C) Expansion from one original settlement
- (D) Expansion through invading armies

23. Why does the author mention "Alexander the Great" in the passage?

- (A) To acknowledge that Greek civilization also expanded by land conquest
- (B) To compare Greek leaders to Roman leaders
- (C) To give an example of a Greek leader whom Romans studied
- (D) To indicate the superior organization of the Greek military

24. The word "fostered" in the passage is closest in meaning to

- (A) accepted
- (B) combined
- (C) introduced
- (D) encouraged

25. Paragraph 3 suggests which of the following about the people of Latium?

- (A) Their economy was based on trade relations with other settlements.
- (B) They held different values than the people of Rome.
- (C) Agriculture played a significant role in their society.
- (D) They possessed unusual knowledge of animal instincts.

26. Paragraph 4 indicates that some historians admire Roman civilization because of

- (A) the diversity of cultures within Roman society
- (B) its strength
- (C) its innovative nature
- (D) the large body of literature that it developed

27. According to paragraph 4, intellectual Romans such as Horace held which of the following opinions about their civilization?

- (A) Ancient works of Greece held little value in the Roman world.
- (B) The Greek civilization had been surpassed by the Romans.
- (C) Roman civilization produced little that was original or memorable.
- (D) Romans valued certain types of innovations that had been ignored by ancient Greeks.

28. Which of the following statements about leading Roman soldiers and statesmen is supported by paragraphs 5 and 6?

- (A) They could read and write the Greek language.
- (B) They frequently wrote poetry and plays.
- (C) They focused their writing on military matters.
- (D) They wrote according to the philosophical laws of the Greeks.

29. In the paragraph below, there is a missing sentence. Look at the paragraph and indicate (A, B, C and D) where the following sentence could be added to the passage.

They esteem symbols of Roman power, such as the massive Colosseum.

Where would the sentence best fit?

Modern attitudes to Roman civilization range from the infinitely impressed to the thoroughly disgusted.

(A) As always, there are the power worshippers, especially among historians, who are predisposed to admire whatever is strong, who feel more attracted to the might of Rome than to the subtlety of Greece.

(B) At the same time, there is a solid body of opinion that dislikes Rome.

(C) For many, Rome is at best the imitator and the continuator of Greece on a larger scale.

(D) Greek civilization had quality; Rome, mere quantity. Greece was original; Rome, derivative. Greece had style; Rome had money. Greece was the inventor; Rome, the research and development division. Such indeed was the opinion of some of the more intellectual Romans. "Had the Greeks held novelty in such disdain as we," asked Horace in his Epistles, "what work of ancient date would now exist?"

(A) Option A (B) Option B (C) Option C (D) Option D

30. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the **THREE** answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. This question is worth 2 points. Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice or you can copy the sentence.

| |
|--|
| The Roman world drew its strength from several important sources. |
| |
| |
| |

Answer Choices

(A) Numerous controls imposed by Roman rulers held its territory together.

(B) The Roman military was organized differently from older military organizations.

(C) Romans valued sea power as did the Latins, the original inhabitants of Rome.

(D) Roman values were rooted in a strong attachment to the land and the stability of rural life. (E) Rome combined aspects of ancient Greek civilization with its own contributions in new areas.

(F) Educated Romans modeled their own literature and philosophy on the ancient Greeks.

Appendix B: Vocabulary Breadth Test (Vocabulary Levels Test- VLT)

Name: _____
Sex: _____

Section:

The Vocabulary Levels Test: Version 2 (Norbert Schmitt)

Student instruction sheet for the Levels Test

This is a vocabulary test. You must choose the right word to go with each meaning. Write the number of that word next to its meaning. Here is an example.

- 1 Business
- 2 Clock _____ part of a house
- 3 Horse _____ animal with four legs
- 4 Pencil _____ something used for writing
- 5 Shoe
- 6 Wall

You answer it in the following way.

- 1 business
- 2 clock 6 part of a house
- 3 horse 3 animal with four legs
- 4 pencil 4 something used for writing
- 5 shoe
- 6 wall

Some words are in the test to make it more difficult. You do not have to find a meaning for these words. In the example above, these words are *business*, *clock* and *shoe*.

If you have no idea about the meaning of a word, do not guess. But if you think you might know the meaning, then you should try to find the answer.

The 2000 word level

- | | | | | | |
|----------|-------|----------------|------------|-------|---------------|
| 1 copy | _____ | end or highest | 1 accident | _____ | loud deep |
| 2 event | _____ | Point | 2 debt | _____ | Sound |
| 3 motor | _____ | this moves a | 3 fortune | _____ | something you |
| 4 pity | _____ | Car | 4 pride | _____ | must pay |
| 5 profit | _____ | thing made to | 5 roar | _____ | having a high |
| 6 tip | _____ | be like | 6 thread | _____ | opinion of |
| | | Another | | | Yourself |

- | | | | | | |
|-----------|-------|---------------|-----------|-------|----------------|
| 1 coffee | _____ | money for | 1 arrange | _____ | Grow |
| 2 disease | _____ | Work | 2 develop | _____ | put in order |
| 3 justice | _____ | a piece of | 3 lean | _____ | like more than |
| 4 skirt | _____ | Clothing | 4 owe | _____ | Something |
| 5 stage | _____ | using the law | 5 prefer | _____ | Else |
| 6 wage | _____ | in the right | 6 seize | _____ | |
| | | Way | | | |

- | | | | | | |
|-----------|-------|---------------|---------------|-------|-------------|
| 1 clerk | _____ | a drink | 1 blame | _____ | make |
| 2 frame | _____ | office worker | 2 elect | _____ | choose by |
| 3 noise | _____ | Unwanted | 3 jump | _____ | voting |
| 4 respect | _____ | Sound | 4 threaten | _____ | become like |
| 5 theater | _____ | | 5 melt | _____ | water |
| 6 wine | _____ | | 6 manufacture | _____ | |

- | | | | | | |
|---------------|-------|------------|-------------|-------|----------------|
| 1 dozen | _____ | chance | 1 ancient | _____ | not easy |
| 2 empire | _____ | twelve | 2 curious | _____ | very old |
| 3 gift | _____ | money paid | 3 difficult | _____ | related to God |
| 4 tax | _____ | to the | 4 entire | _____ | |
| 5 relief | _____ | government | 5 holy | _____ | |
| 6 opportunity | _____ | | 6 social | _____ | |

- | | | | | | | | |
|---|-----------|-------|-----------------------|---|-------------|-------|---------------|
| 1 | admire | _____ | make wider or | 1 | slight | _____ | beautiful |
| 2 | complain | | longer | 2 | bitter | _____ | small |
| 3 | fix | _____ | bring in for | 3 | lovely | _____ | liked by many |
| 4 | hire | | the first time | 4 | merry | | people |
| 5 | introduce | _____ | have a high | 5 | popular | | |
| 6 | stretch | | opinion of someone | 6 | independent | | |

The 3000 word level

- | | | | | | | | |
|---|----------|-------|-------------------|---|------------|-------|--------------|
| 1 | bull | _____ | formal and | 1 | muscle | _____ | advice |
| 2 | champion | | serious | 2 | counsel | _____ | a place |
| 3 | dignity | | manner | 3 | factor | | covered with |
| 4 | hell | _____ | winner of a | 4 | hen | | grass |
| 5 | museum | | sporting event | 5 | lawn | _____ | female |
| 6 | solution | _____ | building where | 6 | atmosphere | | chicken |
| | | | valuable | | | | |
| | | | objects are | | | | |
| | | | shown | | | | |

- | | | | | | | | |
|---|------------|-------|---------------------------|---|----------|-------|-----------------|
| 1 | Blanket | _____ | Holiday | 1 | Abandon | _____ | live in a place |
| 2 | Contest | _____ | good quality | 2 | Dwell | _____ | follow in |
| 3 | generation | _____ | wool covering | 3 | Oblige | | order to catch |
| 4 | Merit | | used on | 4 | Pursue | _____ | Leave |
| 5 | Plot | | Beds | 5 | Quote | | Something |
| 6 | Vacation | | | 6 | Resolve | | Permanently |
| 1 | comment | _____ | long formal | 1 | Assemble | _____ | look closely |
| 2 | gown | | Dress | 2 | Attach | _____ | stop doing |
| 3 | import | _____ | goods from a | 3 | Peer | | Something |
| 4 | nerve | | Foreign | 4 | Quit | _____ | cry out loudly |
| 5 | pasture | | Country | 5 | Scream | | in fear |
| 6 | tradition | _____ | part of the body which | 6 | Toss | | |
| | | | carries feeling | | | | |

- 1 pond _____ group of
- 2 angel _____ animals
- 3 frost _____ spirit who
- 4 herd _____ serves God
- 5 fort _____ managing
- 6 administration _____ business and
Affairs

- 1 drift _____ suffer
- 2 endure _____ patiently
- 3 grasp _____ join wool
- 4 knit _____ threads
- 5 register _____ together
- 6 tumble _____ hold firmly
with your
hands

- 1 brilliant _____ Thin
- 2 distinct _____ Steady
- 3 magic _____ Without
- 4 naked _____ Clothes
- 5 slender
- 6 stable

- 1 aware _____ Usual
- 2 blank _____ best or most
- 3 desperate _____ Important
- 4 normal _____ knowing what
- 5 striking _____ is happening
- 6 supreme

The 5000 word level

- 1 analysis _____ Eagerness
- 2 curb _____ loan to buy a
- 3 gravel _____ House
- 4 mortgage _____ Small
- 5 scar _____ Stones
- 6 zeal _____ mixed with
Sand

- 1 artillery _____ a kind of tree
- 2 creed
- 3 hydrogen _____ system of
- 4 maple _____ Belief
- 5 pork _____ large gun
- 6 streak _____ on wheels

| | | | | | |
|-----------|-------|--------------|-------------|-------|-----------------|
| 1 cavalry | _____ | small hill | 1 chart | _____ | Map |
| 2 eve | _____ | day or night | 2 forge | _____ | large beautiful |
| 3 ham | _____ | before a | 3 mansion | _____ | House |
| 4 mound | _____ | Holiday | 4 outfit | _____ | place where |
| 5 steak | _____ | soldiers who | 5 sample | _____ | metals are |
| 6 switch | _____ | fight from | 6 volunteer | _____ | made and |
| | | Horses | | | Shaped |

| | | | | | |
|--------------|-------|--------------|---------------|-------|--------------------|
| 1 circus | _____ | musical | 1 revive | _____ | think about |
| 2 jungle | _____ | instrument | 2 extract | _____ | deeply |
| 3 trumpet | _____ | seat without | 3 gamble | _____ | bring back to |
| 4 sermon | _____ | a back or | 4 launch | _____ | health |
| 5 stool | _____ | arms | 5 provoke | _____ | make someone angry |
| 6 nomination | _____ | speech | 6 contemplate | _____ | given by a |
| | | priest in a | | | church |

| | | | | | |
|---------------|-------|----------------|--------------|-------|--------------|
| 1 shatter | _____ | have a rest | 1 decent | _____ | weak |
| 2 embarrass | _____ | break | 2 frail | _____ | concerning |
| 3 heave | _____ | suddenly into | 3 harsh | _____ | a city |
| 4 obscure | _____ | small | 4 incredible | _____ | difficult to |
| 5 demonstrate | _____ | pieces | 5 municipal | _____ | believe |
| 6 relax | _____ | make | 6 specific | _____ | |
| | | someone feel | | | |
| | | shy or nervous | | | |

| | | | | | |
|-------------|-------|---------------|------------|-------|-------------|
| 1 Correspon | _____ | Exchange | 1 adequate | _____ | enough |
| 2 embroider | _____ | Letters | 2 internal | _____ | fully grown |
| 3 lurk | _____ | hide and wait | 3 mature | _____ | alone away |
| 4 penetrate | _____ | for someone | 4 profound | _____ | from other |
| 5 prescribe | _____ | feel angry | 5 solitary | _____ | things |
| 6 resent | _____ | About | 6 tragic | _____ | |
| | | Something | | | |

Appendix C: Vocabulary Depth Test (Word Associates Test- WAT)

Name: _____ Section: _____ Sex: _____

Word Associates Test - 40 items - choose four per set (both boxes)

Instructions for taking Word Associates Test:

This is a test of how well you know the meaning of adjectives that are commonly used in English. Each item looks like this:

sudden

| | |
|---|---|
| <input type="checkbox"/> beautiful <input type="checkbox"/> quick <input type="checkbox"/> surprising <input type="checkbox"/> thirsty | <input type="checkbox"/> change <input type="checkbox"/> doctor <input type="checkbox"/> noise <input type="checkbox"/> school |
|---|---|

There are eight words in the two boxes (left & right boxes).

| | |
|--|--|
| The words here on the left side may help to explain the meaning of "sudden". | The words here on the right side are nouns that may come after "sudden" in a phrase or a sentence. |
|--|--|

| | |
|--|---|
| "Sudden" means "happening quickly and unexpectedly", so the correct answers on the left side are "quick" and "surprising". | We do not normally say "a sudden doctor" or "a sudden school", but we often say "a sudden change" and "a sudden noise", so "change" and "noise" are the correct answers on this side. |
|--|---|

From the two boxes, select four words that you think are relevant to the stimulus word (i.e., 'sudden' in this example), according to the criteria mentioned above. Put a tick mark, as done below, before each of your answers:

sudden

| | |
|---|--|
| <input type="checkbox"/> beautiful <input checked="" type="checkbox"/> quick <input checked="" type="checkbox"/> surprising <input type="checkbox"/> thirsty | <input type="checkbox"/> change <input type="checkbox"/> doctor <input checked="" type="checkbox"/> noise <input type="checkbox"/> school |
|---|--|

Note: In this example, there are two correct answers on the left and two on the right, but this is just an example. Do NOT assume there is a consistent number of correct answers on the left or on the right. Just remember: try to find four related words for each item.

1. beautiful

| | |
|--|---|
| <input type="checkbox"/> enjoyable <input type="checkbox"/> expensive <input type="checkbox"/> free <input type="checkbox"/> loud | <input type="checkbox"/> education <input type="checkbox"/> face <input type="checkbox"/> music <input type="checkbox"/> weather |
|--|---|

2. bright

| | |
|--|---|
| <input type="checkbox"/> clever <input type="checkbox"/> famous <input type="checkbox"/> happy <input type="checkbox"/> shining | <input type="checkbox"/> colour <input type="checkbox"/> hand <input type="checkbox"/> poem <input type="checkbox"/> taste |
|--|---|

3. calm

| | |
|--|---|
| <input type="checkbox"/> open <input type="checkbox"/> quiet <input type="checkbox"/> smooth <input type="checkbox"/> tired | <input type="checkbox"/> cloth <input type="checkbox"/> day <input type="checkbox"/> light <input type="checkbox"/> person |
|--|---|

4. natural

| | |
|--|---|
| <input type="checkbox"/> expected <input type="checkbox"/> helpful <input type="checkbox"/> real <input type="checkbox"/> short | <input type="checkbox"/> foods <input type="checkbox"/> neighbours <input type="checkbox"/> parents <input type="checkbox"/> songs |
|--|---|

5. fresh

| | |
|--|---|
| <input type="checkbox"/> another <input type="checkbox"/> cool <input type="checkbox"/> easy <input type="checkbox"/> raw | <input type="checkbox"/> cotton <input type="checkbox"/> heat <input type="checkbox"/> language <input type="checkbox"/> water |
|--|---|

6. general

| | |
|---|---|
| <input type="checkbox"/> closed <input type="checkbox"/> different <input type="checkbox"/> usual <input type="checkbox"/> whole | <input type="checkbox"/> country <input type="checkbox"/> idea <input type="checkbox"/> reader <input type="checkbox"/> street |
|---|---|

7. bare

| | |
|---|--|
| <input type="checkbox"/> empty <input type="checkbox"/> heavy <input type="checkbox"/> uncovered <input type="checkbox"/> useful | <input type="checkbox"/> cupboard <input type="checkbox"/> feet <input type="checkbox"/> school <input type="checkbox"/> tool |
|---|--|

8. acute

| | |
|--|---|
| <input type="checkbox"/> hidden <input type="checkbox"/> often <input type="checkbox"/> rich <input type="checkbox"/> sharp | <input type="checkbox"/> angle <input type="checkbox"/> hearing <input type="checkbox"/> illness <input type="checkbox"/> stones |
|--|---|

9. common

| | |
|---|---|
| <input type="checkbox"/> complete <input type="checkbox"/> light <input type="checkbox"/> ordinary <input type="checkbox"/> shared | <input type="checkbox"/> boundary <input type="checkbox"/> circle <input type="checkbox"/> name <input type="checkbox"/> party |
|---|---|

10. complex

| | |
|---|---|
| <input type="checkbox"/> angry <input type="checkbox"/> difficult <input type="checkbox"/> necessary <input type="checkbox"/> sudden | <input type="checkbox"/> argument <input type="checkbox"/> passengers <input type="checkbox"/> patterns <input type="checkbox"/> problem |
|---|---|

11. broad

| | |
|---|--|
| <input type="checkbox"/> full <input type="checkbox"/> moving <input type="checkbox"/> quiet <input type="checkbox"/> wide | <input type="checkbox"/> night <input type="checkbox"/> river <input type="checkbox"/> shoulders <input type="checkbox"/> smile |
|---|--|

12. conscious

| | |
|---|---|
| <input type="checkbox"/> awake <input type="checkbox"/> healthy <input type="checkbox"/> knowing <input type="checkbox"/> laughing | <input type="checkbox"/> face <input type="checkbox"/> decision <input type="checkbox"/> effort <input type="checkbox"/> student |
|---|---|

13. convenient

| | |
|---|--|
| <input type="checkbox"/> easy <input type="checkbox"/> fresh <input type="checkbox"/> near <input type="checkbox"/> suitable | <input type="checkbox"/> experience <input type="checkbox"/> sound <input type="checkbox"/> time <input type="checkbox"/> vegetable |
|---|--|

14. dense

| | |
|--|--|
| <input type="checkbox"/> crowded <input type="checkbox"/> hot <input type="checkbox"/> noisy <input type="checkbox"/> thick | <input type="checkbox"/> forest <input type="checkbox"/> handle <input type="checkbox"/> smoke <input type="checkbox"/> weather |
|--|--|

15. curious

| | |
|---|--|
| <input type="checkbox"/> helpful <input type="checkbox"/> interested <input type="checkbox"/> missing <input type="checkbox"/> strange | <input type="checkbox"/> accident <input type="checkbox"/> child <input type="checkbox"/> computer <input type="checkbox"/> steel |
|---|--|

16. distinct

| | |
|---|--|
| <input type="checkbox"/> clear <input type="checkbox"/> famous <input type="checkbox"/> separate <input type="checkbox"/> true | <input type="checkbox"/> advantage <input type="checkbox"/> meanings <input type="checkbox"/> news <input type="checkbox"/> parents |
|---|--|

17. dull

| | |
|--|--|
| <input type="checkbox"/> cloudy <input type="checkbox"/> loud <input type="checkbox"/> nice <input type="checkbox"/> secret | <input type="checkbox"/> colour <input type="checkbox"/> knife <input type="checkbox"/> place <input type="checkbox"/> rock |
|--|--|

18. direct

| | |
|--|--|
| <input type="checkbox"/> honest <input type="checkbox"/> main <input type="checkbox"/> straight <input type="checkbox"/> wide | <input type="checkbox"/> fence <input type="checkbox"/> flight <input type="checkbox"/> heat <input type="checkbox"/> river |
|--|--|

19. favorable

| | |
|--|---|
| <input type="checkbox"/> helpful <input type="checkbox"/> legal <input type="checkbox"/> possible <input type="checkbox"/> positive | <input type="checkbox"/> habit <input type="checkbox"/> response <input type="checkbox"/> teacher <input type="checkbox"/> weather |
|--|---|

20. secure

| | |
|---|--|
| <input type="checkbox"/> confident <input type="checkbox"/> enjoyable <input type="checkbox"/> fixed <input type="checkbox"/> safe | <input type="checkbox"/> game <input type="checkbox"/> job <input type="checkbox"/> meal <input type="checkbox"/> visitor |
|---|--|

21. tight

| | |
|--|--|
| <input type="checkbox"/> close <input type="checkbox"/> rough <input type="checkbox"/> uncomfortable <input type="checkbox"/> wet | <input type="checkbox"/> bend <input type="checkbox"/> pants <input type="checkbox"/> surface <input type="checkbox"/> wood |
|--|--|

22. violent

| | |
|---|--|
| <input type="checkbox"/> expected <input type="checkbox"/> smelly <input type="checkbox"/> strong <input type="checkbox"/> unlucky | <input type="checkbox"/> anger <input type="checkbox"/> death <input type="checkbox"/> rubbish <input type="checkbox"/> storm |
|---|--|

23. chronic

| | |
|---|--|
| <input type="checkbox"/> continuing <input type="checkbox"/> local <input type="checkbox"/> serious <input type="checkbox"/> unplanned | <input type="checkbox"/> accident <input type="checkbox"/> examination <input type="checkbox"/> illness <input type="checkbox"/> shortage |
|---|--|

24. compact

| | |
|---|--|
| <input type="checkbox"/> effective <input type="checkbox"/> small <input type="checkbox"/> solid <input type="checkbox"/> useful | <input type="checkbox"/> group <input type="checkbox"/> kitchen <input type="checkbox"/> medicine <input type="checkbox"/> string |
|---|--|

25. crude

clever fair rough
 valuable

behaviour drawing oil
 trade

26. domestic

home national regular
 smooth

animal movement policy
 speed

27. profound

bright deep exact
 great

effect machine taste
 thought

28. fertile

dark growing private
 special

business egg mind
 soil

29. formal

fast loud organised
 serious

bomb education growth
 statement

30. independent

changed equal important
 separate

child country ideas
 prices

31. original

careful closed first
 proud

condition mind plan
 sister

32. sensitive

feeling interesting sharp
 thick

clothes instrument skin
 topic

33. professional

paid public regular
 religious

advice manner musician
 transport

34. critical

| | |
|--|--|
| <input type="checkbox"/> clear <input type="checkbox"/> dangerous <input type="checkbox"/> important <input type="checkbox"/> rough | <input type="checkbox"/> festival <input type="checkbox"/> illness <input type="checkbox"/> time <input type="checkbox"/> water |
|--|--|

35. synthetic

| | |
|---|--|
| <input type="checkbox"/> artificial <input type="checkbox"/> electronic <input type="checkbox"/> expensive <input type="checkbox"/> simple | <input type="checkbox"/> drug <input type="checkbox"/> meal <input type="checkbox"/> radio <input type="checkbox"/> sound |
|---|--|

36. liberal

| | |
|--|--|
| <input type="checkbox"/> free <input type="checkbox"/> moderate <input type="checkbox"/> plenty <input type="checkbox"/> valuable | <input type="checkbox"/> crops <input type="checkbox"/> furniture <input type="checkbox"/> parents <input type="checkbox"/> transport |
|--|--|

37. dramatic

| | |
|---|--|
| <input type="checkbox"/> exciting <input type="checkbox"/> official <input type="checkbox"/> surprising <input type="checkbox"/> worried | <input type="checkbox"/> adventure <input type="checkbox"/> change <input type="checkbox"/> patient <input type="checkbox"/> salary |
|---|--|

38. conservative

| | |
|--|--|
| <input type="checkbox"/> cautious <input type="checkbox"/> hopeful <input type="checkbox"/> traditional <input type="checkbox"/> warm | <input type="checkbox"/> clothes <input type="checkbox"/> estimate <input type="checkbox"/> meeting <input type="checkbox"/> signal |
|--|--|

39. coherent

| | |
|---|---|
| <input type="checkbox"/> clear <input type="checkbox"/> normal <input type="checkbox"/> recent <input type="checkbox"/> together | <input type="checkbox"/> crime <input type="checkbox"/> health <input type="checkbox"/> speech <input type="checkbox"/> theory |
|---|---|

40. ample

| | |
|--|---|
| <input type="checkbox"/> heavy <input type="checkbox"/> large <input type="checkbox"/> plentiful <input type="checkbox"/> windy | <input type="checkbox"/> amount <input type="checkbox"/> climate <input type="checkbox"/> feelings <input type="checkbox"/> time |
|--|---|

Appendix D: Vocabulary Learning Strategies Questionnaire

Addis Ababa University

College of Humanities, Language Studies, and Journalism and Communication

Department of Foreign Languages and Literature

Students' Questionnaire

Name: _____ Section _____ Sex _____

This questionnaire is intended to collect data on students' use of the learning strategies of vocabulary. It isn't related to any kind of evaluation. The success of this research depends on your actual responses to this questionnaire. Please read carefully and respond to the items honestly. The help received from you will be gratefully acknowledged in the thesis. Thank you for your cooperation.

Listed in the Table below are 55 strategy items.

Please answer the questions in Part A and Part B.

For each strategy, circle the response that best fits you.

Frequency: How frequently do you use the strategy? Using the rating scale below, circle the number that best describes your actual strategy use: 1 Never or almost never, 2 Seldom 3 About half the time, 4 Usually and 5 Always or almost always.

Levels of Your Own Vocabulary Learning Actions

“Always” means that you use the action 100% of the time. “Often” means that you use the action 75% of the time. “Sometimes” means that you use the action 50% of the time. “Seldom” means that you use the action 25% of the time. “Never” means that you use the action 0% of the time.

| Strategy Item | Part A (Frequency) |
|--|-----------------------|
| 1. I analyze part of speech (e.g. noun, verb, adverb, adjective...). | 1 2 3 4 5 |
| 1 I analyze affixes (prefix and suffix) and roots. | 1 2 3 4 5 |
| 3. I check for first language equivalence. | 1 2 3 4 5 |

| | |
|---|-----------|
| 4. I analyze any available pictures or gestures (movements of hands). | 1 2 3 4 5 |
| 5. I guess from textual context (by looking at the words that appear before and after a new word). | 1 2 3 4 5 |
| 6. I use Bilingual dictionary (from one language to another language e.g. English- Amharic). | 1 2 3 4 5 |
| 7. I use monolingual dictionary (word meanings within one language e.g. English-English). | 1 2 3 4 5 |
| 8. I write word lists with their meanings. | 1 2 3 4 5 |
| 9. I ask my teachers to translate an English word to my mother tongue. | 1 2 3 4 5 |
| 10. I ask my teachers for paraphrase (another expression) or synonym (similar) of a new word. | 1 2 3 4 5 |
| 11. I ask my teachers to include a new word in a sentence. | 1 2 3 4 5 |
| 12. I ask my classmates for meaning. | 1 2 3 4 5 |
| 13. I discover new meaning through group work activity. | 1 2 3 4 5 |
| 14. I study and practice the meanings of words in a group. | 1 2 3 4 5 |
| 15. I interact with native (mother tongue) speakers. | 1 2 3 4 5 |
| 16. I study word with a pictorial representation of its meaning. | 1 2 3 4 5 |
| 17. I try to image word's meaning in my mind. | 1 2 3 4 5 |
| 18. I connect a word to my personal experience. | 1 2 3 4 5 |
| 19. I associate the word with its coordinates (e.g. associating the word 'cherry' with 'apple', 'banana' and 'orange'). | 1 2 3 4 5 |
| 20. I connect the word to its synonyms and antonyms (Similarity or opposite). | 1 2 3 4 5 |
| 21. I use semantic maps (maps of related words). | 1 2 3 4 5 |

| | |
|---|-----------|
| 22. I use 'scales' for gradable adjectives (e.g. huge/big/medium-sized/small/tiny). | 1 2 3 4 5 |
| 23. 23. I use Peg Method (Memorizing words by associating words with numbers). | 1 2 3 4 5 |
| 24. I use Loci Method (I visualize the first item to be recalled in the first location, the second item in the second location, and so on). | 1 2 3 4 5 |
| 25. I group words together to study them (e.g. all animals first, all plants second...). | 1 2 3 4 5 |
| 26. I group words together spatially on a page in the shape of rectangles, pluses, Xs, Zs, and K. | 1 2 3 4 5 |
| 27. I use new word in sentences. | 1 2 3 4 5 |
| 28. I group words together within a storyline. | 1 2 3 4 5 |
| 29. I study the spelling of a word. | 1 2 3 4 5 |
| 30. I study the sound of a word. | 1 2 3 4 5 |
| 31. I say new word aloud when studying. | 1 2 3 4 5 |
| 32. I study how to spell a word. | 1 2 3 4 5 |
| 33. I underline the first letter of a word and try to remember it. | 1 2 3 4 5 |
| 34. I arrange new words in a sentence to study them. | 1 2 3 4 5 |
| 35. I find a word from my mother tongue which sounds like the English word I study. | 1 2 3 4 5 |
| 36. I remember the meanings of words by focusing on the prefixes, the root words and suffixes. | 1 2 3 4 5 |
| 37. I use part of speech to remember the meaning of a word. | 1 2 3 4 5 |
| 38. I study a word by expressing it in my way. | 1 2 3 4 5 |

| | |
|---|-----------|
| 39. I use origin of the word (e.g. Greece and Latin) to remember its meaning. | 1 2 3 4 5 |
| 40. I learn the words of an idiom (expression that cannot be understood from the individual meanings of its elements) together. | 1 2 3 4 5 |
| 41. I use physical action when learning a word. | 1 2 3 4 5 |
| 42. I use semantic feature grids (showing relationship of words by putting a tick and X mark in a table). | 1 2 3 4 5 |
| 43. I say words again and again to remember them. | 1 2 3 4 5 |
| 44. I study words by writing them repeatedly. | 1 2 3 4 5 |
| 45. I list the words and their meanings I learnt earlier to avoid forgetting. | 1 2 3 4 5 |
| 46. I take notes in class by focusing on the key words. | 1 2 3 4 5 |
| 47. I use the vocabulary section in my textbook. | 1 2 3 4 5 |
| 48. I make and listen a tape recording of word lists. | 1 2 3 4 5 |
| 49. I put English labels on physical objects. | 1 2 3 4 5 |
| 50. I keep a vocabulary notebook. | 1 2 3 4 5 |
| 51. I listen to songs and watch movies, newscasts... | 1 2 3 4 5 |
| 52. I take word tests. | 1 2 3 4 5 |
| 53. I study and practice words regularly (for example, every 24 hours, every week and every month) | 1 2 3 4 5 |
| 54. I sometimes skip or pass new word. | 1 2 3 4 5 |
| 55. I study words every day in my life. | 1 2 3 4 5 |

Appendix E: Vocabulary Learning Strategy Material

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| | Erro |
| r! Bookmark not defined. | |
| 2.10.1. Use English-language media (songs, movies, newscasts, etc.) and testing oneself with word tests | |
| | Erro |
| r! Bookmark not defined. | |

2.10.2. Use spaced word practice and continue to study word over time

Erro

r! Bookmark not defined.

2.10.3. Skip or pass new word

Erro

r! Bookmark not defined.

| | | | |
|-----------------|--------------------------|-----|-----|
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Vocabulary Learning Strategies Training for First Year University Students

General objectives of the training material

After the completion of this training, learners will be able to:

- discover the meaning of words by guessing from their structural knowledge of the words
- recognize how to interact with other people to improve their vocabulary knowledge
- identify how to relate the word to be retained with some previously learned knowledge
- recognize the strategies of repetition and using mechanical means to study vocabulary
- decide which words are worth studying
- choose the most efficient methods of vocabulary study
- test themselves on vocabulary knowledge to measure improvement

Unit One: Strategies for the Discovery of a New Word's Meaning

1.1 Determination Strategies

Analyze parts of speech

Objectives of the lesson

At the end of this lesson, students will be able to:

distinguish the definition of parts of speech

give examples of each part of speech

identify parts of speech in sentences

construct sentences employing each part of speech

What are parts of speech? They are eight categories of words defined in terms of their purpose, place, meaning, and use within sentences. The categories are: nouns, pronouns, verbs, adjectives, adverbs, prepositions, conjunctions, and interjections.

| Part of Speech | Definition | Examples |
|----------------|--|--|
| Nouns | Names persons, places, things, ideas, or qualities. | teacher, Albany, basketball, proposal, pride |
| Pronouns | Words that replace a noun that has already been mentioned. | I, you, him, her, me, this, that, they, which, she, he |
| Verbs | Words that convey action, a state of being, or existence. | walk, go, sing, are, seem, sleep |
| Adjectives | Words that describe nouns and pronouns. | beautiful, green, angry, necessary |
| Adverbs | Words that modify verbs, adjectives, or other adverbs. They answer the questions: "When?", "Where?", "Why?", "How?", "How much?", and "In what way?" | gracefully, very, too, loudly, finally |
| Prepositions | Words that link nouns or pronouns | on, in, over, under, within |

| | | |
|---|---|-----------------------------------|
| | to other words within a sentence | |
| Conjunctions | Words that link other words, phrases, or clauses in a sentence. | |
| a. Coordinating Conjunctions | Words that link independent clauses. | for, and, nor, but, or, yet, so |
| b. Subordinatin g Conjunctions | Words that link dependent clauses with independent clauses. | although, because, whether, while |
| Interjections | Words that are used as exclamations or to express feeling. | Hey! Oh! Darn! Wow! |

Source: The College of Saint Rose Writing Center, 2008, www.strose.edu/writingcenter

The same word may be different parts of speech, depending on the word's use in the sentence.

Examples: I have a part in the play. ("part" is a noun.)

I part my hair on the left. ("part is a verb.)

My dog is part collie. ("part" is an adjective.)

My love gave me a ring. ("ring" is a noun.)

I will ring the doorbell. ("ring" is a verb.)

Have you a ring holder? ("ring" is an adjective.)

This is the fast lane. ("fast" is an adjective.)

The man runs very fast. ("fast" is an adverb.)

Source: <https://www.molloy.edu/Documents/English/GrammarNotes.pdf>

Exercise

Underline the nouns in the following sentences.

1. The dog jumped on the sofa.

2. A monkey is smarter than a cow.

Underline the pronouns in the following sentences.

1. He was afraid that he had lost it.

2. Did you tell them about it?

Underline the verbs in the following sentences.

1. The girls opened the door.

2. She is a very pretty baby.

Underline the adjectives in the following sentences.

1. The cute little bunny was hopping around in our garden.

2. Jennifer's first doll lost her head in a terrible accident.

Underline the adverbs in the following sentences.

1. Bob shouted loudly and ran quickly across the driveway.

2. The very sad dog headed home.

Underline the prepositions in the following sentences.

1. My house is at the end of this street.

2. The car drove through the woods and into the valley.

Underline the conjunctions in the following sentences.

1. Byron likes to think in terms of dollars and cents.

2. She lives near the bridge but far from the pond.

Underline the interjections in the following sentences.

1. My gosh! That's a huge pumpkin!

2. I can't go to school today, alas!

Source: http://www.sqecanada.org/wp-content/uploads/2016/07/INTRO_STGPart1.pdf

1.1.2 Analyze affixes (prefix and suffix) and roots

Objectives of the lesson

At the end of this lesson, students will be able to:

- describe word elements
- identify the meanings of common prefixes
- distinguish the origin of common prefixes
- match words with prefix with their definitions
- complete sentences with words with prefixes
- use suffixes to complete sentences

There are three kinds of word elements: prefixes, roots, and suffixes. A prefix is a group of letters that is attached to the beginning of a word root. A root is the central, or main, portion of a word. A suffix is a group of letters that is attached to the end of a root. An example of a word that contains all three elements is *impolitely*: *im-* is the prefix, *polite* is the root, and *-ly* is the suffix. Now let us look at each element separately.

A prefix such as *im-* attaches to the beginning of a root. The hyphen at the end of *im-* shows where the root attaches. When a prefix joins a root, the result is a new word with a different meaning. In the word *impolite*, for example, the prefix *im-* means “not.” When *im-* is joined to the root *polite*, the new word formed by the prefix and root means “not polite.” Next, we can see what happens when the prefix *co-*, which means “together,” is joined to two familiar word roots.

co- (together) *exist* *coexist* (to exist together)

co- (together) *operate* *cooperate* (to work or operate together) In both of these examples, the prefix *co-* changes the meaning of the root word.

A root is the central portion of a word, and it carries the basic meaning. There are two types of roots: base word and combining root. A base word is simply an English word that can stand alone, such as *polite* or *operate*, and may be joined to a prefix or a suffix. Combining roots cannot stand alone as English words; they are derived from words in other languages. For example, the combining root *ject* is derived from the Latin word *iacere*, which means “to throw.” Although the root *ject* is not an English word by itself, it can combine with many prefixes to form words. Two examples are *reject* and *eject*.

e- (a prefix meaning “out”) *ject* (a root meaning “throw”) *eject*

re- (a prefix meaning “back”) *ject* (a root meaning “throw”) *reject*

How do a prefix and a root create a word with a new meaning? Sometimes the new word’s meaning is simply the combination of its root and prefix. Thus, *eject* means “to throw out.” At other times the meaning of a word is somewhat different from the combined prefix and root. *Reject* does not mean “to throw back”; rather, it means “not to accept.” These two meanings are related; we could imagine that someone who did not accept something might throw it back. In fact, “to throw back” gives an imaginative picture of *reject*. Prefixes and roots often give an image of a word rather than a precise definition. This image can help you remember the meaning of a word. The

formation of several words from ject is illustrated below.

A suffix, such as *-ly*, is added to the end of a root. The hyphen at the beginning shows where the root attaches. Most suffixes change a base word from one part of speech to another. (See the table on pages 5 and 6.) For example, *-able* changes a verb (reach) to an adjective (reachable). Suffixes may also indicate a plural, as in *boys*, or a past tense, as in *reached*. A few suffixes extend the basic meaning of a word root. The root *psych* (“mind”) and the suffix *-logy* (“study of”) are joined to form *psychology* (“the study of the mind”).

One dictionary lists over four hundred words that use *ex-* and more than six hundred formed from *in-* or *im-*.

| <i>Prefix</i> | <i>Meaning</i> | <i>Origin</i> | <i>Chapter Words</i> |
|---------------------|--------------------------|---------------|---|
| <i>anti-, ant-</i> | against; opposite | Greek | antidote, antipathy, antithesis |
| <i>equi-, equa-</i> | equal | Latin | equilibrium, equitable, equivocal |
| <i>re-</i> | back; again | Latin | reconcile, resilient, revelation, revert |
| <i>sub-</i> | below, under, less; part | Latin | subconscious, subvert, subdue, subside |
| <i>auto-</i> | self | Greek | autobiography, autocratic, autonomous |
| <i>ex-, e-, ec-</i> | out of; former | Latin | eccentric, exorbitant, exploit, extricate |
| <i>im-, in-</i> | not; in | Latin | impartial, incongruous, ingenious, interminable, invariably, invincible |

Exercise

■ □ *Definitions*

Match the word and definition. Use each choice only once.

- | | |
|----------------|---|
| 1. equitable | a. conquer |
| 2. revert | b. doubtful |
| 3. resilient | c. beneath awareness |
| 4. subdue | d. return to a former habit |
| 5. equilibrium | e. something that acts against a poison |
| 6. antithesis | f. hatred |
| 7. antipathy | g. surprising news |
| 8. equivocal | h. fair |
| 9. revelation | i. balance; stability |

Complete the words that describe the pictures below. Use the suffixes from the list.

-able -ful -less

1. The first woman is very tired. She wants to rest! The second woman can't stay still. She always wants to move! She is rest_____.



2. The first dog isn't cute. He's a little scary! The second dog is very cute! He's ador_____!



3. Jemal writes lots of lists, so he always remembers what he has to do. He never forgets! But Melat can't remember anything! She's very forget_____!



Source: <https://www.really-learn-english.com/prefixes-and-suffixes-worksheets.html>

1.1.3 Check for first language equivalence

Objectives of the lesson

At the end of this lesson, students will be able to:

- define the term 'translation'
- summarize the advantage of translation for vocabulary learning
- discuss the criticism against translation for vocabulary learning

- translate an English text into their mother tongue

First language equivalence is another phrase for translation. Oxford (1990, p. 46) defined translating as, “Converting the target language expression into the native language (at various levels, from words and phrases all the way up to whole texts); or converting the native language into the target language; using one language as the basis for understanding or producing another”.

Translation Equivalence is a cognitive strategy used by learners for lexical processing and vocabulary enriching. Indeed, vocabulary learning strategies are part of language learning strategies used by second/foreign language learners in order to acquire new words and develop a lexicon (Boustani, 2010: p. 5).

Referring to the native language (L1) while learning a new language (L2), some educators (e.g., Weschler, 1997) argue against the common belief that thinking in the mother tongue might deter thinking directly in the target language, that excessive use of the first language will lead to the emergence of odd combinations of the native and second languages that students could not use in daily life, and that the class time spent on the first language would have been spared for learning the new language. (Al-Musawi, N. M. (2014) Strategic use of translation in learning English as a Foreign Language (EFL) among Bahrain university students. Innovative Teaching, 3, 4.)

To summarize, finding first language equivalence to a word of target language is necessary in some situations, especially for beginners; however, it isn't recommended to be usually used.

Exercise

1. Define the term ‘translation’.
2. Summarize the advantage of translation for vocabulary learning.
3. Discuss the criticism against translation for vocabulary learning.
4. Translate the following English text into your mother tongue.

The Hazards of Movie going

Although I love movies, I've found that there are drawbacks to movie going. One problem is just the inconvenience of it all. To get to the theater, I have to drive for at least fifteen minutes, or more if traffic is bad. It can take forever to find a parking spot, and then I have to walk across a huge parking lot to the theater. There I encounter long lines, sold-out shows, and ever-increasing prices. And I hate sitting with my feet sticking to the

floor because of other people's spilled snacks. Another problem is my lack of self-control at the theater. I often stuff myself with unhealthy calorie-laden snacks. My choices might include a bucket of popcorn, a box of Milk Duds, a giant soda, or all three. The worst problem is some of the other moviegoers. Kids run up and down the aisle. Teenagers laugh and shout at the screen. People of all ages drop soda cups and popcorn tubs, cough and burp, and talk to one another. All in all, I would rather stay home and watch a DVD in the comfort of my own living room.

Source: Langan, J. (2011). *College Writing Skills with Readings*. New York: McGraw-Hill

1.1.4. Using Dictionaries

Objectives of the lesson

At the end of this lesson, students will be able to:

- put words in alphabetical order
- find common collocations that go together with given words
- identify words written in American English and British English
- read texts and find definitions of words in texts
- find synonyms for words in texts
- recognize the consonants that are not pronounced in various words

Different types of dictionaries (monolingual and bilingual) have their own distinct advantages. Although a monolingual dictionary generally provides more in-depth explanations pertaining to the function of vocabulary in context (Albus et al., 2005), it requires a large amount of vocabulary and grammatical knowledge to understand the meaning of an unknown word. On the other hand, a bilingual dictionary supplies meaning in an accessible fashion, which can be bi-directional (i.e., English to first language and first language to English) (Nation, 2001). Some studies (Qian, 2004; Wei, 2007) reveal that English-language learners prefer a bilingual dictionary to a monolingual dictionary. For example, Qian's (2004) study found that the majority of students with intermediate language proficiency consulted a bilingual dictionary when confronted with unfamiliar words. Wei's (2007) study also showed that the use of an English-Chinese dictionary was more favored than that of English-English dictionaries by Chinese college students. Even though many prefer bilingual dictionary use, some researchers (Baxter,

1980; Nation, 2001) point out that this type of dictionary has several drawbacks. A bilingual dictionary tends to lead students to depend on a one-to-one correspondence of words between the meaning of an unknown word in the second language and translation in their first language (Baxter, 1980; Nation, 2001). Baxter's (1980) study showed that Japanese learners rely greatly on bilingual dictionaries, which may discourage them from using communication strategies in oral activities. Unlike monolingual dictionaries that supply conversational definitions, bilingual dictionaries tend to provide a single lexical item for meaning.

Source: Huang S. & Eslami, Z. (2013). *English Language and Literature Studies*; Vol. 3, No. 3;2013

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Another way of initially finding a word's meaning is through reference materials, primarily dictionaries (see Scholfield, this volume). Even though they are prone to certain shortcomings (Scholfield, 1982), bilingual dictionaries seem to be used much more extensively than monolingual dictionaries by L2 language learners (Tomaszczyk, 1979; Baxter, 1980). This is despite the finding that Tomaszczyk's subjects generally felt the information available in bilingual dictionaries was inferior to that available in their monolingual counterparts. One way around this contradiction is to include more and better information in future bilingual dictionaries. A move in this direction is the *Word Routes* series of bilingual dictionaries (1994-), which presents words in a succession of semantic fields instead of the normal alphabetical ordering. Monolingual learners dictionaries themselves have been much improved by a careful consideration of the kinds of information learners need and also the use of large corpora to ensure natural usage.

(Source: Schmitt, 1997)

Exercise

1. Put the words in each row in alphabetical order:

- a) handy hard hand heat heart
- b) photography photographic photograph photographer photogenic
- c) shoulder school scholar should solid
- d) strange study student studious stranger
- e) gorilla great grand gorgeous group

2. How many common collocations can you make using these words?

| Head | Paper | School | work |
|-----------|-------|--------|------|
| head ache | | | |
| Headline | | | |
| Headphone | | | |

3. Are these words American English or British English?

- a) biscuit _____ b) vacation _____ c) lorry _____
d) pavement _____ e) high school _____

4. Go to <http://learnenglishteens.britishcouncil.org/magazine/life-aroundworld/staycations> or read the text your teacher gives you. Find the words in the text for these definitions:

- a) _____: Continuing for longer than usual
b) _____: Being true (without a doubt)
c) _____: The place where someone is going
d) _____: One-day journeys for pleasure
e) _____: Famous building or objects that you can recognize

5. Use the same text as (4). Find synonyms in the text for these words:

- a) holidays _____
b) area _____
c) thrilling _____
d) brothers and sisters _____
e) companies _____

(Source: www.teachingenglish.org.uk)

6. Underline the consonant that is not pronounced in the following words.

A. comb B. honour C. receipt D. write E. know G. palmtop H. debt I. castle J. psychology

i. Word lists

Objectives of the lesson

At the end of this lesson, students will be able to:

- recognize high frequency words
- identify academic words
- identify technical words
- find the meanings of common words in geography, history and government and politics

High-frequency words: How should teachers and learners deal with these words? The high frequency words of the language are so important that considerable time should be spent on these words by both teachers and learners. The words are a small enough group to enable most of them to get attention over the span of a long-term English programme. This attention can be in the form of direct teaching, direct learning, incidental learning, and planned meetings with the words. The time spent on them is well justified by their frequency, coverage and range, and by the relative smallness of the group of words. The classic list of high frequency words is Michael West's (1953) *A General Service List of English Words*, which contains 2,000 word families. Almost 80% of the running words in the spoken language and reading text are high frequency words. The updated General Service List (GSL) is a list of approximately 2300 words published by Michael West in 1953. The words were selected to represent the most frequent words of English and were taken from a corpus of written English. The target audience was English language learners and ESL teachers.

For the full list of high frequency words, refer appendix 'A'.

Academic words: There is a very important specialized vocabulary for second language learners intending to do academic study in English. This is the Academic Word List. It consists of 570 word families that are not in the most frequent 2,000 words of English but which occur reasonably frequently over a very wide range of academic texts. That means that the words in the academic vocabulary are useful for learners studying humanities, science or commerce. The list is not restricted to a specific discipline. The academic vocabulary has sometimes been called sub-technical vocabulary because it does not contain technical words but it contains rather formal vocabulary.

Refer appendix B for the full list of academic words.

Technical words: These words include indigenous, regeneration, podocarp, beech, rimu (a New Zealand tree), timber. These words are reasonably common in this topic area but

are not so common elsewhere. As soon as we see them we know what topic is being dealt with. Technical words like these typically cover about 5% of the running words in a text. They differ from subject area to subject area. If we look at technical dictionaries, such as dictionaries of economics, geography, electronics, we usually find about 1,000 entries in each dictionary.

Source: Nation (2001) Learning Vocabulary in Another Language

History

Boost your knowledge of the past by learning some common historical terms.

Write a letter to match each boldface term with its meaning. If you need help, check a dictionary.

- | A | B |
|---------------------|---|
| 1. _____ century | a. 10 years |
| 2. _____ civil war | b. 100 years |
| 3. _____ colony | c. a fight for a change in government |
| 4. _____ decade | d. a settlement that is ruled by another country |
| 5. _____ revolution | e. a ruler who has complete power |
| 6. _____ dictator | f. a war in which two parts of a country fight each other |

Government and Politics

All citizens should understand the workings of their government. Do you know the language of government? Write a letter to match the boldface term with its meaning. If you need help, check a dictionary.

- | A | B |
|--------------------|--|
| 1. _____ election | a. a list of choices on which people mark their pick |
| 2. _____ candidate | b. those who live in a community and have rights and |

responsibilities

- | | |
|-----------------------|---|
| 3. _____ ballot | c. the process of choosing candidates by voting |
| 4. _____ citizens | d. to show your choice; to say what you think should happen |
| 5. _____ constitution | e. a planned effort to get people to choose a certain candidate |
| 6. _____ vote | f. an official, written plan of government |
| 7. _____ campaign | g. a person running for office |

Geography

Here are some words you'll need to know when you're talking about geography. Write a letter to match each boldface term with its meaning. If you need help, check a dictionary.

- | A | B |
|---------------------|---|
| 1. _____ border | a. a place with water deep enough for ships to dock |
| 2. _____ climate | b. a round model of the earth |
| 3. _____ population | c. the typical kind of weather in a certain place |
| 4. _____ port | d. the land bordering the sea |
| 5. _____ globe | e. the total number of people who live in a place |
| 6. _____ coast | f. line on a map that divides one state or country from another |

Source: Suter J. (2004). Building Vocabulary Skills and Strategies. Three Watson: Saddleback Educational Publishing

1.2. Social Strategies- Strategies for the Discovery of a New Word's Meaning

1.2.1. Ask teacher for paraphrase (another expression) or synonym (similar) of new word

Objectives of the lesson

At the end of this lesson, students will be able to:

- discover a new meaning employing the social strategy of asking someone who knows
- recognize rules of paraphrasing
- identify the advantages and disadvantages of asking for L1 translation of words
- paraphrase paragraphs and show the words they changed

A second way to discover a new meaning employs the Social Strategy of asking someone who knows. Teachers are often in this position, and they can be asked to give help in a variety of ways: giving the L1 translation if they know it, giving a synonym, giving a definition by paraphrase, using the new word in a sentence, or any combination of these. L1 translations have the advantage of being fast, easily understood by students, and make possible the transfer of all the knowledge a student has of the L1 word (collocations, associations, etc.) onto the L2 equivalent. The disadvantages are that the teacher must know the learners' mother tongue, and that most translation pairs are not exact equivalents, so that some erroneous knowledge may be transferred. Likewise, though synonyms have similar meanings, students need to know collocational, stylistic, and syntactic differences in order to use them effectively in a productive mode (Martin, 1984). Paraphrasing well involves similar kinds of complexities (Scholfield, 1980). Of course classmates or friends can be asked for meaning in all of the above ways, but to condense the taxonomy, only the general item 'Ask classmates for meaning' is listed. In addition, learners can be introduced to new words and discover their meanings through group work.

Source: Schmitt (1997). *Vocabulary Learning Strategies*

THESE ARE THE RULES FOR PARAPHRASING:

DO these things:

- Work hard to understand the original passage—it's only when you understand the original that you can put it into new words effectively
- Put the text in your own words
- use a citation every time, even when you've put the source in your own words
- use the correct form of in-text (parenthetical) citation and bibliography entry
- use credible sources—a good paraphrase of a bad source is still bad writing

DON'T make these common mistakes:

don't change the meaning of the original text

- don't use the exact words—unless you use a direct quotation, and put them inside quotation
- marks don't copy and paste the passage and then make some minor changes—you need to change
- a source's words, structure, and order into your own work

Source:<https://www.potsdam.edu/sites/default/files/documents/support/tutoring/cwc/paraphrasing>.

Look at how following paragraph is paraphrased and the words which are changed.

The United States, Germany, Japan and other industrial powers are being transformed from industrial economies to knowledge and information based service economies, whilst manufacturing has been moving to low wage countries. In a knowledge and information based economy, knowledge and information are the key ingredients in creating wealth.

There has been a dramatic change in economies such as the United States, Japan and Germany from industrial to service economies involved in knowledge and information. As manufacturing shifts to countries where wages are low, economic growth and information economies must focus on knowledge and information production (Laudon & Laudon 2002).

other industrial powers = economies such as

transformed = dramatic change

whilst = as

has been moving = shifts to

low wage countries = countries where wages are low

key ingredients = focus on

Exercise: Based on the above example, paraphrase the following paragraph and show the words you changed.

Information systems make it possible for business to adopt flatter, more decentralised

structures and more flexible arrangements for employees and management. Organisations are trying to become more competitive and efficient by transforming themselves into digital firms where nearly all core business process and relationships with customers, suppliers and employees are digitally managed (Laudon & Laudon 2002).

Source: <https://www.uts.edu.au>

Unit Two:Consolidation Strategies

2.1. Social Strategies

Objectives of the lesson

At the end of this lesson, students will be able to:

- identify the benefits of group work to practice vocabulary
- recognize how to interact with native-speakers to gain vocabulary
- name words of common fruits
- distinguish how to pair L2 words with pictures

Besides the initial discovery of a word, group work can be used to learn or practice vocabulary (Nation, 1977). Dansereau (1988) lists some of the benefits various researchers have attributed to cooperative group learning: it promotes active processing of information and cross modelling/imitation, the social context enhances motivation of the participants, cooperative learning can prepare the participants for 'team activities' outside the classroom, and because there is less instructor intervention, students have more time to actually use and manipulate language in class. Another Social strategy, probably infrequently used, involves students enlisting teachers to check their work for accuracy (Kramsch, 1979), especially flash cards and word lists, since these are commonly used for independent learning outside of class.

If input is a key element in language acquisition (Krashen, 1982), then it would seem that

interacting with native-speakers would be an excellent way to gain vocabulary.

Although it would be hard to prove this empirically, there is indirect evidence to support this intuitive assumption. Milton and Meara (1995) found that one group of non-native-speakers enrolled in a British university (presuming a reasonably large amount of native-speaker interaction) averaged vocabulary gains of 1325 words per six months, compared to an average 275 word gain previously in their home countries.

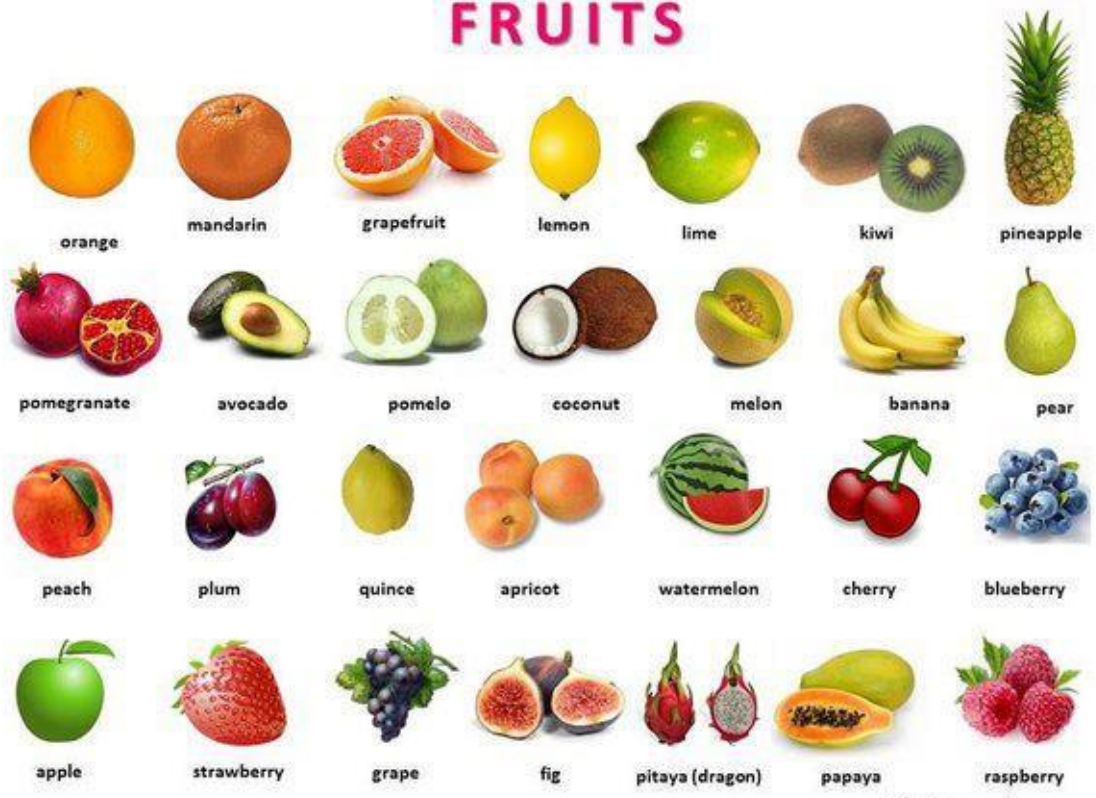
Source: Schmitt (1997). *Vocabulary Learning Strategies*

2.2. Study word with a pictorial representation of its meaning

New words can be learned by studying them with pictures of their meaning instead of definitions. Pairing L2 words with pictures has been shown to be better than pairing them with their L1 equivalents in Russian (Kopstein and Roshal, 1954) and Indonesian (Webber, 1978). Alternatively, learners can create their own mental images of a word's meaning. Imagery has been shown to be more effective than mere repetition for reading passages (Steingart and Glock, 1979) and sentences (Saltz and Donnenwerth-Nolan, 1981), suggesting it could well be more effective for vocabulary too. New words can also be associated with a particularly vivid personal experience of the underlying concept, for example, a learner mentally connecting the word *snow* to a memory of playing in the snow while a child.

Source: Schmitt (1997). *Vocabulary Learning Strategies*

FRUITS

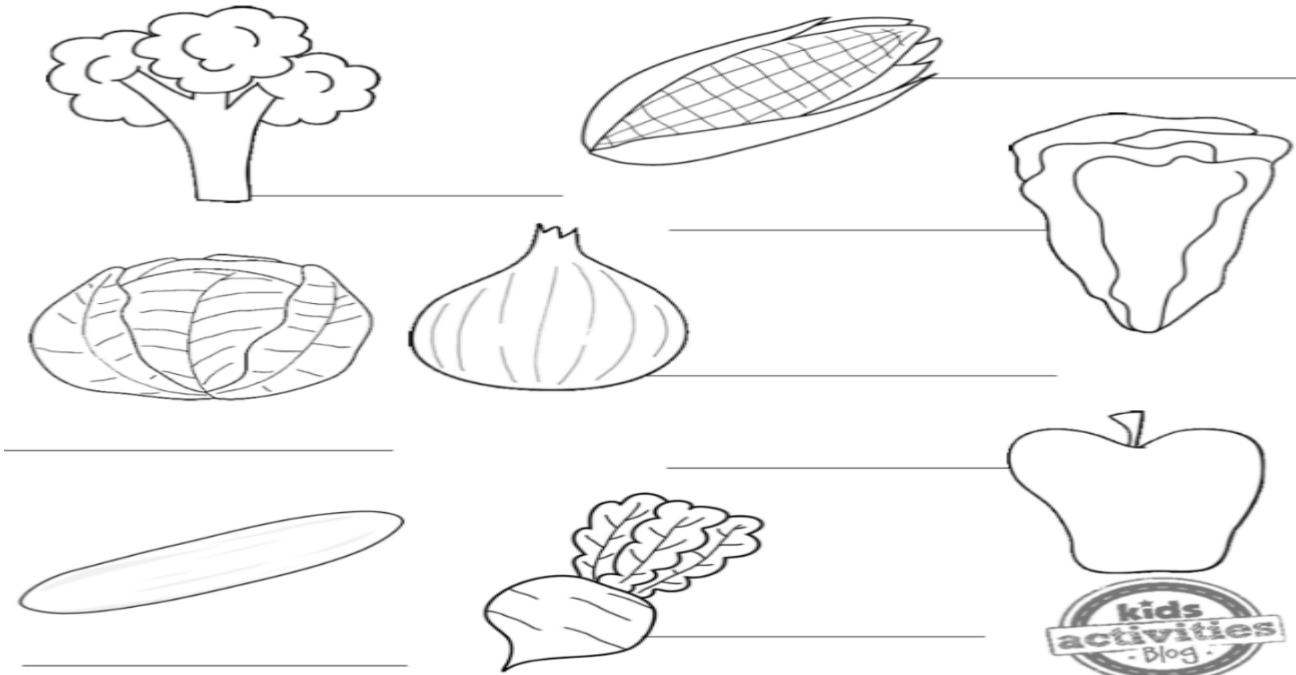


©My two cents...

Vegetable Matching

Write the name of the correct vegetable and then color in the vegetables

- broccoli cucumber onion corn
pepper lettuce cabbage beet



Source: <https://kidsactivitiesblog.com/47225/printable-vegetable-coloring-pages>

2.3. Memory Strategies

Objectives of the lesson

At the end of this lesson, students will be able to:

- relate the words to be retained with some previously learned knowledge using the strategy of mnemonics
- tell whether a pair of words is synonyms or antonyms
- identify the hyponyms and the superordinate among the given list

Most Memory Strategies (traditionally known as mnemonics) involve relating the word to be retained with some previously learned knowledge, using some form of imagery, or grouping. As Thompson (1987: 43) explains, "... 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." This integration also involves the kind of elaborative mental processing that the Depth of Processing Hypothesis (Craik and Lockhart, 1972; Craik and Tulving, 1975) suggests is necessary for long term retention (Ellis, this volume). A new word can be integrated into many kinds of existing knowledge (ie. previous experiences or known words) or images can be custom-made for retrieval (ie., images of the word's form or meaning attributes).

Source: Schmitt (1997). Vocabulary Learning Strategies

2.4. Associate the word with its coordinates

Likewise, new words can be linked to L2 words which the student already knows. Usually this involves some type of sense relationship, such as coordination (*apple* □ other kinds of fruit like *pears*, *cherries*, or *peaches*), synonymy (*irritated* □ *annoyed*), or antonymy (*dead* □ *alive*). Word association research has shown that coordinates in particular have very strong connective bonds (Aitchison, 1987). These and other sense relationships (e.g. hyponymy) can be illustrated with semantic maps, which are often used to help consolidate vocabulary (Oxford, 1990).

Some words, particularly gradable adjectives, have meanings relative to other words in their set. For example, in any given situation, *big* is larger than *medium-sized*, but smaller than *huge*. A helpful way to remember these words is to set them in a scale (*huge/big/medium-sized/small/tiny*) (Gairns and Redman, 1986).

Source: Schmitt (1997). Vocabulary Learning Strategies

Exercise 1

Antonyms are words that have opposite meanings.

Example: Warm is an antonym for cool. Strong is an antonym for weak.

Synonyms are words that have similar meanings.

Examples: Huge is a synonym for gigantic. Soft is a synonym for quiet.

Tell whether each pair of words is synonyms or antonyms. Write “synonyms” or “antonyms” on each line.

1. unusual / odd _____
2. bright / dim _____
3. happy / unhappy _____
4. soaked / dry _____
5. ancient / old _____
6. fast / speedy _____
7. icy / freezing _____
8. remember / forget _____
9. illness / sickness _____
10. delicious / yummy _____
11. draw / sketch _____
12. friend / enemy _____

Exercise 2

A hyponym contains the meaning of a more general term (the superordinate term).

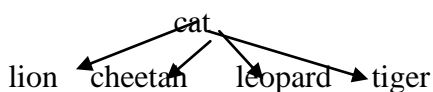
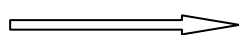
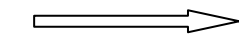
Hyponymy is the vertical relation in taxonomy.

The more general or more inclusive term = superordinate

The more specific term = hyponym

superordinate

hyponym



Lion, cheetah, leopard and tiger are hyponyms (types) of cat.

Identify the hyponyms and the superordinate.

cat/ dog/ horse/ domestic animals

fork/ knife/ spoon/ utensil

cricket/ football/ hockey/ game

eagle/ peacock/ sparrow/ bird

Africa/ Ethiopia/ Sudan/ Egypt

2.5. Peg Method (Memorizing words by associating words with numbers) and Loci Method (visualizing familiar environment)

Objectives of the lesson

At the end of this lesson, students will be able to:

- link words together that have no sense relationships with 'peg' method
- associating unrelated words in the Loci Method
- employ grouping strategy to recall meanings of words

The learner can also link words together that have no sense relationships. One way of doing this is with 'peg' or 'hook' words. One first memorizes a rhyme like 'one is a bun, two is a shoe, three is a tree etc'. Then an image is created of the word to be remembered and the peg word. If the first word to be remembered is *chair*, then an image is made of a bun (peg word) resting on a chair. Recitation of the rhyme draws up these images, which in turn prompt the target words. English-speaking learners of French, studying the same number of words for both methods, remembered twice as many using peg words than rote memorization (Paivio and Desrochers, 1979).

Similarly, a spatial mnemonic can be used to memorize unrelated words. In the Loci Method, one recalls a familiar place, such as a street, and mentally places the first item to be recalled in the first location, the second item in the second location, and so on. To recall the items, one mentally proceeds along the landmarks and retrieves the items which have been associated with each location. Subjects could recall more L1 words after one and five weeks using this method than other subjects using rote memorization

(Groninger, 1971). In an L2 study, subjects using this method remembered twice as many words (Bower, 1973).

Source: Schmitt (1997). *Vocabulary Learning Strategies*

2.6. Group words together to study them and use new word in sentences

Grouping is an important way to aid recall, and people seem to organize words into groups naturally without prompting. In free-recall studies, L1 subjects were given lists of words to study and then recall in any order. Typically, words belonging to each meaning category are recalled together, for example, all animals first, before moving on to another category like names (Bousfield, 1953). If the words are organized in some way before memorization, recall is improved (Cofer, Bruce, and Reicher, 1966; Craik and Tulving, 1975). The above L1 studies show grouping works for native-speakers, and there is no reason to believe it does not do the same L2 learners. It may work better for more proficient learners, however, as they favoured grouping strategies more than beginners did (Chamot, 1984, cited in Thompson, 1987).

Words can also be grouped spatially on a page in some sort of pattern. Belleza (1983) found that L1 words grouped on the page in the shape of rectangles, pluses, Xs, Zs, and Ks, were better recalled both immediately and after one week than words arranged in columns. Listing L1 words diagonally down the page resulted in better recall than listing them in a single column (Decker & Wheatley, 1982).

Words can be grouped together in a very natural way by using the target word in sentences. Similarly, words can be grouped together in a story. The narrative chain method has been shown to be highly effective with L1 undergraduates, who recalled six-to-seven times as many words with this method than with rote memorization (Bower and Clark, 1969).

Source: Schmitt (1997). *Vocabulary Learning Strategies*

Discuss, with a nearby student, the meanings of the following academic words arranged in the shapes of Z, L and X. Refer dictionary if you find them difficult.

Theory/approach

accommodate

index

recover

Concept

commence

inhibit X scope

Convene *compatible* *initiate X initiate*
Negate/revenue *distort/pose/encounter* *subsidy* *rational*

2.7. Other memory strategies (Affixes and roots-remembering, parts of speech (remembering), paraphrase the word’s meaning

Objectives of the lesson

At the end of this lesson, students will be able to:

- identify how affixes, root, and word class are potentially useful as a way of consolidating a word’s meaning
- recognize how paraphrasing can also be used as a memory strategy which improves recall of a word
- familiarise themselves about the advantage of using phrases, idioms, and proverbs to study vocabulary
- recognize the use of physical action to vocabulary recall
- identify how to use semantic feature grids to illustrate the meaning or collocational differences between sets of similar words

Just as a structural analysis of words can be useful for determining their meaning, studying a word's affixes, root, and word class is potentially useful as a way of consolidating its meaning. Paraphrasing can be used to teach the meanings of new words (Scholfield, 1980), or it can be used as strategy to compensate for a limited productive vocabulary, especially when a word is temporarily inaccessible (Baxter, 1980). But it can also be used as a Memory Strategy which improves recall of a word by means of the manipulation effort involved in reformulating the word's meaning.

Source: Schmitt (1997). Vocabulary Learning Strategies

2.8. Chunking, Using physical action and Semantic feature grids

Some of the vocabulary people know is originally learned as parts of multiword 'chunks', often as phrases, idioms, or proverbs, which are later analyzed into the component words (Nattinger and DeCarrico, 1992; Peters, 1983). One way of increasing one's vocabulary is to analyze and learn the individual words of these chunks, and then use the whole chunk (if it is transparent enough) as a mnemonic device for remembering the individual word meanings.

The use of physical action when learning has been shown to facilitate language recall (Saltz and Donnenwerth-Nolan, 1981). Asher (1977) has made it the basis for a whole methodology, the Total Physical Response Method (TPR), which seems to be especially amenable to the teaching of beginners. Indeed, learners sometimes use physical actions spontaneously while learning (O'Malley et al., 1983, cited in Thompson, 1987).

Semantic feature grids have often been used in vocabulary materials. It seems their main strength is in illustrating the meaning or collocational differences between sets of similar words (Channell, 1981; Gairns and Redman, 1986; McCarthy, 1990).

Source: Schmitt (1997). Vocabulary Learning Strategies

Teachers may use SFA (Semantic Feature Analysis) grids before reading the lesson, during reading, and after reading. They may use the KWL (Know, Want to know, Learned) reading strategy. Before reading a science unit for example, on mammals, the teacher begins by activating learners' prior knowledge about the concept. The teacher may draw an empty SFA grid on the board and let them brainstorm what they know about the topic with reference to the two dimensions of the grid (i.e., types and features of mammals). The teacher at this stage just guides learners and should not provide any information. Learners gradually fill the grid. Then the teacher asks them to read the unit to (a) verify what they have included in the grid, and (b) to complete the grid

This activity is based on a Science unit. The objective is to teach the academic vocabulary of mammals as shown in Grid 1.

| | Has hair Hair | Vertebrate | Lives on land | Lives at sea | Able to fly | Herbivore | Carnivore | Omnivore | Marsupial | Produces milk | Marsupial |
|--------------------------------------|------------------|------------|---------------|--------------|-------------|-----------|-----------|----------|-----------|------------------|-----------|
| B e a r | + | + | + | - | - | - | - | + | - | + | |
| B a t | + | + | + | - | + | + | + | - | - | + | |
| L i o n | + | + | + | - | - | - | + | - | - | + | |
| S e a l | + | + | - | + | - | - | + | - | - | + | |
| K a n g a r o o | + | + | + | - | - | + | - | - | + | + | |
| W h a l e | + | + | - | + | - | - | + | - | - | + | |
| F e r r e t | + | + | + | - | - | - | + | - | - | + | |

Source: Amer, A. 2019. Teaching/Developing Vocabulary Using Semantic Feature Analysis. The TESOL Encyclopedia of English Language Teaching. Published by John Wiley & Sons, Inc.

Phrasal Verbs

Objectives of the lesson

At the end of this lesson, students will be able to:

- explain the term 'phrasal verb'
- recognize how phrasal verbs are formed
- identify types of phrasal verb
- complete sentences with phrasal verbs

A phrasal verb is a verb formed from two (or sometimes three) parts: a verb and an adverb or preposition. These adverbs and prepositions are often called particles when they are used in a phrasal verb. Most phrasal verbs are formed from a small number of verbs (for example, get, go, come, put and set) and a small number of particles (for example, away, out, off, up and in). Phrasal verbs sometimes have meanings that you can easily guess (for example, sit down or look for). However, in most cases their meanings are quite different from the meanings of the verb they are formed from. For example, hold up can mean 'to cause a delay' or 'to try to rob someone'. The original meaning of hold (for example, to hold something in your hands) no longer applies.

There are five main types of phrasal verb. These are:

1. Intransitive phrasal verbs (= phrasal verbs which do not need an object). For example: You're driving too fast. You ought to slow down.
2. Transitive phrasal verbs (= phrasal verbs which must have an object) where the object can come in one of two positions: (1) Between the verb and the particle(s). For example: I think I'll put my jacket on. or (2) After the particle. For example: I think I'll put on my jacket

However, if the object is a pronoun (he, she, it, etc), it must usually come between the verb and the particle. For example: I think I'll put it on. (NOT I think I'll put on it.)

3. Transitive phrasal verbs where the object must come between the verb and the particle. For example: Our latest designs set our company apart from our rivals.
4. Transitive phrasal verbs where the object must come after the particle. For example: John takes after his mother. Why do you put up with the way he treats you?
5. Transitive phrasal verbs with two objects, one after the verb and one after the particle. For example: They put their success down to good planning.

Source: Wyatt R. (2006). Phrasal verbs and idioms. London: A & C Black Publishers Ltd

A. Complete with one of these phrasal verbs: be through, go on, fill in, take off, stay

out, and speak up.

1. Could you this application form, please?
2. I'll never talk to you again. We!
3. If you don't, we can't hear you.
4. I'm tired because I too late last night.
5. The plane late because of the bad weather.

B. Complete with one of these phrasal verbs: go off, put off, see off, take off, and turn off.

1. Let's go to the airport to them
2. The plane doesn't till 5 o'clock.
3. He was sleeping soundly when the alarm clock
4. The meeting has been till next month.
5. Don't forget to all the lights when you leave.

C. Complete with: carry on, get on, hold on, put on and try on.

1. Hi! Is Mr. Knight in?, I'll call him.
2. Excuse me, could I this dress, please?
3. How are you at college?
4. Are you still with your tennis lessons?
5. It was a bit chilly, so she her jacket.

Source: <http://www.english-area.com/paginas/phrasalE1.pdf>

What is an idiom?

Objectives of the lesson

At the end of this lesson, students will be able to:

- define the term 'idiom'
- recognize how idioms are formed
- complete incomplete sentences with appropriate idioms

An idiom is an expression where the meaning is different from the meaning of the individual words. For example, to have your feet on the ground is an idiom meaning 'to be sensible': "Tara is an intelligent girl who has both her feet firmly on the ground." A lot of idioms are formed using phrasal verbs. For example: After he left me, it took me a long time to pick up the pieces (= It took me a long time to return to a normal life). Many idioms are colloquial, which means that they are used in informal conversation rather

than in writing or formal language. For example: "I won't tell anyone your secret. My lips are sealed."

Exercise

The words and expressions in the box can all be used informally to describe different kinds of people. Use them to complete sentences 1 – 10. Note that many of the words / expressions have a negative connotation and are not very polite, so you should be careful how you use them!

| | | | |
|----------------------------|----------------|--------------|-------------|
| pain in the neck | moaning minnie | couch potato | wet blanket |
| life and soul of the party | eager beaver | smart cookie | |
| anorak | happy camper | chatterbox | |

1. Nobody likes Peter very much because he's so annoying. He's a right _____!
2. Andy is so boring. Did you know that his idea of a perfect day is going to the station to collect train registration numbers? What a / an _____!
3. I know that you don't like your job very much, but I wish you would stop complaining about it all the time. Don't be such a / an _____!
4. Imelda loves working here: she's a real _____.
5. Alan is an excellent and intelligent manager who runs the department well and deals effectively with any problems that come up. Everyone agrees that he's a / an _____.
6. You've been sitting in front of the television for almost four hours. Why don't you turn it off and go for a walk? You're turning into a / an _____.
7. We were having a wonderful evening until Anne joined us. Why does she have to be so negative about everything all the time? She's such a / an _____!
8. Don't be such a / an _____! If you concentrated instead of speaking all the time, you would get more work done.
9. If you want some help, ask Imelda. She's always happy and willing to help out: she's a real _____!
10. I hope Rick comes out with us tonight. He's such good fun, always the _____.

Proverbs

Objectives of the lesson

At the end of this lesson, students will be able to:

- define the term ‘proverb’
- explain the role of proverb
- recognize the meanings of some common English proverbs
- complete incomplete proverbs with words

A proverb is a short saying that gives advice or expresses truth. Proverbs aren’t usually literal sayings; proverbs use figurative language to make a statement about life. Usually a proverb is very well known because of its popular use in colloquial language. Proverbs play many roles in society. The first, possibly, most common role that a proverb plays is to educate. Most often tossed around as expert advice in conversation, the innate role is to educate people on what might happen if they do something. They also reinforce a community’s values and colloquial language. Proverbs can inspire someone in need of a kind word and help them make decisions for their lives.

Some examples of English proverbs include:

“Early to bed and early to rise, makes a man healthy, wealthy and wise.”

Meaning: Taking care of yourself leads to success and productivity.

“It’s no use locking the stable door after the horse has bolted.”

Meaning: Fixing a mistake won’t help after the consequences have happened.

“Laugh and the world laughs with you, weep and you weep alone.”

Meaning: People prefer sharing good news over bad news.

“Tis better to have loved and lost, than never to have loved at all.”

Meaning: The experience of having loved someone is more valuable than being alone.

“People who live in glass houses shouldn’t throw stones.”

Meaning: Don’t criticize others for something you also do.

“The poor carpenter blames his tools.”

Meaning: Take ownership of your mistakes instead of finding blame elsewhere.

“When you want to make an omelet, you need to break a few eggs.”

Meaning: Reaching a goal requires sacrifice.

Source: <https://examples.yourdictionary.com/examples-of-proverbs.html>

Test your knowledge of proverbs with the following quiz. What you need to do is to complete the proverb using a suggested answer.

1. A leopard can't change its _____ a) Tail b) Stripes c) Spots d) Nature
2. Every cloud has a silver _____ a) Color b) Hue c) Lining d) Finish
3. One man's _____ is another's poison. a) Food b) Medicine c) Meat d) Drink
4. Familiarity _____ contempt. a) Makes b) Breeds c) Generates d) Produces
5. Think before you _____ a) Leap b) Jump c) Run d) Act
6. Don't look a gift horse in the _____ a) Face b) Head c) Tummy d) Mouth
7. People in glass houses should not _____ stones. a) Toss b) Throw c) Hurl d) Collect
8. You can't have your _____ and eat it too. a) Pudding b) Cake c) Meat d) Ice cream
9. When in Rome _____ as Romans do a) Act b) Behave c) Do d) Think
10. Paddle your own _____ a) Boat b) Yacht c) canoe d) rift

Source: <https://www.englishpractice.com/quiz/proverbs-quiz/?pdf=658>

Repetition, listen to tape of word lists and put English labels on physical objects

Objectives of the lesson

At the end of this lesson, students will be able to:

- identify how to study the meanings of words using written and verbal repetition
- recognize how to employ word lists to review the meanings of words
- recognize how flash cards are important to review the meanings of words
- familiarize themselves with taking notes strategy to review the meanings of words
- identify how a vocabulary notebook is important to study vocabulary

Cognitive Strategies in this taxonomy are similar to Memory Strategies, but are not focused so specifically on manipulative mental processing; they include repetition and using mechanical means to study vocabulary. Written and verbal repetitions, repeatedly writing or saying a word over and over again, are common strategies in many parts of the world. They are so entrenched that students often resist giving them up to try other ones (O'Malley and Chamot, 1990). Although the Depth of Processing Hypothesis (Craik and Lockhart, 1972; Craik and Tulving, 1975) calls their utility in question, it must be admitted that there are many learners who have used these strategies to reach high levels of proficiency.

Word lists and flash cards can be used for the initial exposure to a word, but most

students continue to use them to review it afterwards. One main advantage of flash cards is that they can be taken almost anywhere and studied when one has a free moment (Brown, 1980). Another is that they can be arranged to create logical groupings of the target words (Gairns and Redman, 1986; Cohen, 1990).

Another kind of cognitive strategy is using study aids. Taking notes in class invites learners to create their own personal structure for newly learned words, and also affords the chance for additional exposure during review. Students can also make use of any special vocabulary sections in their textbooks to help them study target words. One expedient for making L2 words salient is to tape L2 labels onto their respective physical objects. Students who prefer a more aural approach to learning can make a tape recording of word lists (or any other vocabulary material) and study by listening.

Vocabulary notebooks have been recommended by a number of writers (Allen, 1983: 50; Gairns and Redman, 1986: 95-100; and McCarthy, 1990: 127-29). Schmitt and Schmitt (1995) suggest a type of notebook which incorporates the progressive learning of different kinds of word knowledge for each word, and also the use of expanding rehearsal.

Appendix F: Reading Comprehension Pre-Test Scores

| Id | Group | Score | Id | Group | Score |
|-----------|--------------|--------------|-----------|--------------|--------------|
| 1.00 | Control | 15.00 | 3.00 | Experimental | 7.66 |
| 2.00 | Control | 8.66 | 4.00 | Experimental | 16.32 |
| 3.00 | Control | 16.00 | 5.00 | Experimental | 24.32 |
| 4.00 | Control | 20.66 | 6.00 | Experimental | 11.35 |
| 5.00 | Control | 19.32 | 7.00 | Experimental | 23.99 |
| 6.00 | Control | 19.66 | 8.00 | Experimental | 13.00 |
| 7.00 | Control | 14.99 | 9.00 | Experimental | 20.99 |
| 8.00 | Control | 19.66 | 10.00 | Experimental | 25.00 |
| 9.00 | Control | 18.32 | 11.00 | Experimental | 9.99 |
| 10.00 | Control | 12.33 | 12.00 | Experimental | 6.66 |
| 11.00 | Control | 14.98 | 13.00 | Experimental | 11.66 |
| 12.00 | Control | 16.65 | 14.00 | Experimental | 16.66 |
| 13.00 | Control | 12.99 | 15.00 | Experimental | 26.00 |
| 14.00 | Control | 11.99 | 16.00 | Experimental | 16.99 |
| 15.00 | Control | 14.66 | 17.00 | Experimental | 26.33 |
| 16.00 | Control | 17.66 | 18.00 | Experimental | 20.99 |
| 17.00 | Control | 11.00 | 19.00 | Experimental | 20.32 |
| 18.00 | Control | 29.66 | 20.00 | Experimental | 14.32 |
| 19.00 | Control | 9.00 | 20.00 | Control | 11.98 |
| 1.00 | Experimental | 24.66 | | | |
| 2.00 | Experimental | 19.33 | | | |

Appendix G: Vocabulary Levels (Vocabulary Breath Knowledge) Pre-Test Scores

| Id | Group | Score | Id | Group | Score |
|-----------|--------------|--------------|-----------|--------------|--------------|
| 1.00 | Control | 88.5 | 3.00 | Control | 87 |
| 2.00 | Control | 11.00 | 4.00 | Control | 83 |

| | | | | | |
|-------|--------------|------|-------|--------------|------|
| 5.00 | Control | 79 | 5.00 | Experimental | 86 |
| 6.00 | Control | 87 | 6.00 | Experimental | 83 |
| 7.00 | Control | 81 | 7.00 | Experimental | 84 |
| 8.00 | Control | 78.5 | 8.00 | Experimental | 85.5 |
| 9.00 | Control | 86.5 | 9.00 | Experimental | 83.5 |
| 10.00 | Control | 77.5 | 10.00 | Experimental | 87.5 |
| 11.00 | Control | 89 | 11.00 | Experimental | 37 |
| 12.00 | Control | 73 | 12.00 | Experimental | 13.5 |
| 13.00 | Control | 83.5 | 13.00 | Experimental | 80.5 |
| 14.00 | Control | 88.5 | 14.00 | Experimental | 80 |
| 15.00 | Control | 80 | 15.00 | Experimental | 87 |
| 16.00 | Control | 88 | 16.00 | Experimental | 82.5 |
| 17.00 | Control | 81 | 17.00 | Experimental | 86 |
| 18.00 | Control | 81 | 18.00 | Experimental | 75.5 |
| 19.00 | Control | 77.5 | 19.00 | Experimental | 88 |
| 20.00 | Control | 85.5 | 20.00 | Experimental | 82.5 |
| 1.00 | Experimental | 85.5 | | | |
| 2.00 | Experimental | 81.5 | | | |
| 3.00 | Experimental | 75.5 | | | |
| 4.00 | Experimental | 83.5 | | | |

Appendix H: Word Associates (Vocabulary Depth Knowledge) Pre-Test Scores

| Id | Group | Score | Id | Group | Score |
|-----------|--------------|--------------|-----------|--------------|--------------|
| 1.00 | Control | 116.00 | 1.00 | Experimental | 136.00 |
| 2.00 | Control | 133.00 | 2.00 | Experimental | 107.00 |
| 3.00 | Control | 128.00 | 3.00 | Experimental | 85.00 |
| 4.00 | Control | 134.00 | 4.00 | Experimental | 110.00 |
| 5.00 | Control | 118.00 | 5.00 | Experimental | 117.00 |
| 6.00 | Control | 80.00 | 6.00 | Experimental | 134.00 |
| 7.00 | Control | 129.00 | 7.00 | Experimental | 143.00 |
| 8.00 | Control | 116.00 | 8.00 | Experimental | 90.00 |
| 9.00 | Control | 123.00 | 9.00 | Experimental | 123.00 |
| 10.00 | Control | 128.00 | 10.00 | Experimental | 117.00 |
| 11.00 | Control | 125.00 | 11.00 | Experimental | 131.00 |
| 12.00 | Control | 113.00 | 12.00 | Experimental | 140.00 |
| 13.00 | Control | 140.00 | 13.00 | Experimental | 126.00 |
| 14.00 | Control | 128.00 | 14.00 | Experimental | 132.00 |
| 15.00 | Control | 126.00 | 15.00 | Experimental | 119.00 |
| 16.00 | Control | 109.00 | 16.00 | Experimental | 146.00 |
| 17.00 | Control | 109.00 | 17.00 | Experimental | 140.00 |
| 18.00 | Control | 104.00 | 18.00 | Experimental | 118.00 |
| 19.00 | Control | 117.00 | 19.00 | Experimental | 95.00 |
| 20.00 | Control | 117.00 | 20.00 | Experimental | 124.00 |

Appendix I: Reading Comprehension Post-Test Scores

| Id | Group | Score | Id | Group | Score |
|-----------|--------------|--------------|-----------|--------------|--------------|
| 1.00 | Control | 23.46 | 4.00 | Control | 29.99 |
| 2.00 | Control | 29.00 | 5.00 | Control | 22.66 |
| 3.00 | Control | 27.00 | 6.00 | Control | 23.33 |

| | | | | | |
|-------|--------------|-------|-------|--------------|-------|
| 7.00 | Control | 7.00 | 4.00 | Experimental | 15.65 |
| 8.00 | Control | 26.33 | 5.00 | Experimental | 26.99 |
| 9.00 | Control | 28.00 | 6.00 | Experimental | 26.99 |
| 10.00 | Control | 9.32 | 7.00 | Experimental | 21.98 |
| 11.00 | Control | 9.66 | 8.00 | Experimental | 20.66 |
| 12.00 | Control | 13.55 | 9.00 | Experimental | 25.33 |
| 13.00 | Control | 17.99 | 10.00 | Experimental | 25.33 |
| 14.00 | Control | 29.33 | 11.00 | Experimental | 16.33 |
| 15.00 | Control | 18.99 | 12.00 | Experimental | 5.98 |
| 16.00 | Control | 25.99 | 13.00 | Experimental | 12.99 |
| 17.00 | Control | 27.99 | 14.00 | Experimental | 12.33 |
| 18.00 | Control | 26.00 | 15.00 | Experimental | 28.66 |
| 19.00 | Control | 22.32 | 16.00 | Experimental | 22.32 |
| 20.00 | Control | 15.32 | 17.00 | Experimental | 18.32 |
| 1.00 | Experimental | 23.66 | 18.00 | Experimental | 13.99 |
| 2.00 | Experimental | 20.66 | 19.00 | Experimental | 24.32 |
| 3.00 | Experimental | 17.66 | 20.00 | Experimental | 24.98 |

Appendix J: Vocabulary Levels (Vocabulary Breadth) Post-Test Scores

| Id | Group | Score | Id | Group | Score |
|-----------|--------------|--------------|-----------|--------------|--------------|
| 1.00 | Control | 88 | 3.00 | Control | 88 |
| 2.00 | Control | 10.5 | 4.00 | Control | 87 |

| | | | | | |
|-------|--------------|------|-------|--------------|------|
| 5.00 | Control | 85 | 5.00 | Experimental | 87 |
| 6.00 | Control | 88 | 6.00 | Experimental | 86.5 |
| 7.00 | Control | 83.5 | 7.00 | Experimental | 91 |
| 8.00 | Control | 81 | 8.00 | Experimental | 90 |
| 9.00 | Control | 84.5 | 9.00 | Experimental | 87.5 |
| 10.00 | Control | 77 | 10.00 | Experimental | 89 |
| 11.00 | Control | 85.5 | 11.00 | Experimental | 85 |
| 12.00 | Control | 25.5 | 12.00 | Experimental | 87.5 |
| 13.00 | Control | 23 | 13.00 | Experimental | 84 |
| 14.00 | Control | 84 | 14.00 | Experimental | 83 |
| 15.00 | Control | 79.5 | 15.00 | Experimental | 88.5 |
| 16.00 | Control | 88.5 | 16.00 | Experimental | 83.5 |
| 17.00 | Control | 83 | 17.00 | Experimental | 88.5 |
| 18.00 | Control | 88 | 18.00 | Experimental | 80 |
| 19.00 | Control | 80 | 19.00 | Experimental | 89 |
| 20.00 | Control | 77.5 | 20.00 | Experimental | 88 |
| 1.00 | Experimental | 88.5 | | | |
| 2.00 | Experimental | 85 | | | |
| 3.00 | Experimental | 85 | | | |
| 4.00 | Experimental | 89.5 | | | |

Appendix K: Word Associates (Vocabulary Depth) Post-Test Scores

| Id | Group | Score | Id | Group | Score |
|-----------|--------------|--------------|-----------|--------------|--------------|
| 1.00 | Control | 114.00 | 20.00 | Control | 113.00 |
| 2.00 | Control | 127.00 | 1.00 | Experimental | 138.00 |
| 3.00 | Control | 135.00 | 2.00 | Experimental | 108.00 |
| 4.00 | Control | 129.00 | 3.00 | Experimental | 143.00 |
| 5.00 | Control | 111.00 | 4.00 | Experimental | 115.00 |
| 6.00 | Control | 70.00 | 5.00 | Experimental | 125.00 |
| 7.00 | Control | 129.00 | 6.00 | Experimental | 139.00 |
| 8.00 | Control | 125.00 | 7.00 | Experimental | 146.00 |
| 9.00 | Control | 138.00 | 8.00 | Experimental | 139.00 |
| 10.00 | Control | 114.00 | 9.00 | Experimental | 124.00 |
| 11.00 | Control | 126.00 | 10.00 | Experimental | 123.00 |
| 12.00 | Control | 122.00 | 11.00 | Experimental | 138.00 |
| 13.00 | Control | 108.00 | 12.00 | Experimental | 142.00 |
| 14.00 | Control | 130.00 | 13.00 | Experimental | 132.00 |
| 15.00 | Control | 127.00 | 14.00 | Experimental | 134.00 |
| 16.00 | Control | 106.00 | 15.00 | Experimental | 109.00 |
| 17.00 | Control | 108.00 | 16.00 | Experimental | 143.00 |
| 18.00 | Control | 119.00 | 17.00 | Experimental | 140.00 |
| 19.00 | Control | 105.00 | 18.00 | Experimental | 124.00 |

19.00 Experimental 121.00

20.00 Experimental 121.00

Appendix L: Experimental and Control Groups' Scores in Vocabulary Learning Strategies

Appendix L1: Experimental and Control Groups' Scores in Determination Vocabulary Learning Strategies

Experimental 15.00 32.00 35.00

Id Pretest Posttest 16.00 27.00 27.00

1.00 29.00 30.00 17.00 25.00 26.00

2.00 25.00 24.00 18.00 31.00 32.00

3.00 30.00 28.00 19.00 19.00 22.00

4.00 38.00 36.00 20.00 35.00 36.00

5.00 35.00 36.00 **Control**

6.00 30.00 31.00 **Id Pretest Posttest**

7.00 29.00 28.00 1.00 35.00 30.00

8.00 26.00 28.00 2.00 31.00 28.00

9.00 29.00 30.00 3.00 32.00 30.00

10.00 28.00 30.00 4.00 39.00 30.00

11.00 32.00 33.00 5.00 29.00 29.00

12.00 23.00 22.00 6.00 20.00 31.00

13.00 29.00 30.00 7.00 25.00 31.00

14.00 19.00 21.00 8.00 27.00 29.00

| | | | | | |
|-------|-------|-------|-------|-------|-------|
| 9.00 | 28.00 | 29.00 | 18.00 | 35.00 | 35.00 |
| 10.00 | 22.00 | 21.00 | 19.00 | 26.00 | 24.00 |
| 11.00 | 32.00 | 22.00 | 20.00 | 20.00 | 31.00 |
| 12.00 | 26.00 | 30.00 | | | |
| 13.00 | 24.00 | 36.00 | | | |
| 14.00 | 16.00 | 29.00 | | | |
| 15.00 | 25.00 | 26.00 | | | |
| 16.00 | 26.00 | 26.00 | | | |
| 17.00 | 32.00 | 33.00 | | | |

Appendix L2: Experimental and Control Groups' Scores in Social for Discovery Strategy Experimental

| Id | Pretest | Posttest | | | |
|-----------|----------------|-----------------|-------|-------|-------|
| | | | 11.00 | 17.00 | 17.00 |
| 1.00 | 8.00 | 9.00 | 12.00 | 10.00 | 22.00 |
| 2.00 | 13.00 | 15.00 | 13.00 | 7.00 | 7.00 |
| 3.00 | 18.00 | 19.00 | 14.00 | 8.00 | 9.00 |
| 4.00 | 19.00 | 20.00 | 15.00 | 18.00 | 16.00 |
| 5.00 | 12.00 | 14.00 | 16.00 | 9.00 | 12.00 |
| 6.00 | 8.00 | 10.00 | 17.00 | 6.00 | 19.00 |
| 7.00 | 18.00 | 20.00 | 18.00 | 12.00 | 17.00 |
| 8.00 | 16.00 | 18.00 | 19.00 | 9.00 | 10.00 |
| 9.00 | 17.00 | 12.00 | 20.00 | 6.00 | 7.00 |
| 10.00 | 10.00 | 10.00 | | | |

Control

| Id | Pretest Posttest | | 11.00 | 14.00 | 16.00 |
|-----------|-------------------------|-------|-------|-------|-------|
| 1.00 | 17.00 | 18.00 | 12.00 | 14.00 | 15.00 |
| 2.00 | 14.00 | 14.00 | 13.00 | 16.00 | 16.00 |
| 3.00 | 14.00 | 14.00 | 14.00 | 11.00 | 12.00 |
| 4.00 | 13.00 | 13.00 | 15.00 | 16.00 | 15.00 |
| 5.00 | 13.00 | 14.00 | 16.00 | 12.00 | 14.00 |
| 6.00 | 12.00 | 13.00 | 17.00 | 21.00 | 20.00 |
| 7.00 | 16.00 | 15.00 | 18.00 | 15.00 | 17.00 |
| 8.00 | 14.00 | 14.00 | 19.00 | 17.00 | 16.00 |
| 9.00 | 15.00 | 17.00 | 20.00 | 18.00 | 17.00 |
| 10.00 | 15.00 | 14.00 | | | |

Appendix L3: Experimental and Control Groups' Scores in Social for Consolidation Strategy

Experimental

| Id | Pretest Posttest | | 7.00 | 4.00 | 4.00 |
|-----------|-------------------------|------|-------|------|------|
| 1.00 | 5.00 | 6.00 | 8.00 | 4.00 | 5.00 |
| 2.00 | 2.00 | 2.00 | 9.00 | 3.00 | 5.00 |
| 3.00 | 4.00 | 5.00 | 10.00 | 4.00 | 4.00 |
| 4.00 | 9.00 | 9.00 | 11.00 | 9.00 | 9.00 |
| 5.00 | 8.00 | 5.00 | 12.00 | 4.00 | 4.00 |
| 6.00 | 6.00 | 8.00 | 13.00 | 6.00 | 5.00 |

| | | | | | |
|-------|------|------|-------|------|------|
| 14.00 | 2.00 | 2.00 | 6.00 | 5.00 | 3.00 |
| 15.00 | 9.00 | 9.00 | 7.00 | 4.00 | 4.00 |
| 16.00 | 3.00 | 3.00 | 8.00 | 7.00 | 5.00 |
| 17.00 | 4.00 | 8.00 | 9.00 | 6.00 | 7.00 |
| 18.00 | 8.00 | 8.00 | 10.00 | 5.00 | 6.00 |
| 19.00 | 3.00 | 3.00 | 11.00 | 7.00 | 4.00 |
| 20.00 | 6.00 | 4.00 | 12.00 | 6.00 | 4.00 |

Control

Id Pretest Posttest

| | | | | | |
|------|------|------|-------|------|------|
| 1.00 | 8.00 | 3.00 | 13.00 | 8.00 | 8.00 |
| 2.00 | 6.00 | 5.00 | 14.00 | 4.00 | 2.00 |
| 3.00 | 4.00 | 5.00 | 15.00 | 6.00 | 6.00 |
| 4.00 | 7.00 | 4.00 | 16.00 | 3.00 | 3.00 |
| 5.00 | 6.00 | 6.00 | 17.00 | 8.00 | 6.00 |
| | | | 18.00 | 6.00 | 7.00 |
| | | | 19.00 | 6.00 | 9.00 |
| | | | 20.00 | 6.00 | 5.00 |

Appendix L4: Experimental and Control Groups' Scores in Memory Strategy

Experimental

Id Pretest Posttest

| | | | | | |
|------|-------|-------|------|-------|--------|
| 1.00 | 78.00 | 63.00 | 4.00 | 90.00 | 115.00 |
| 2.00 | 56.00 | 61.00 | 5.00 | 84.00 | 82.00 |
| 3.00 | 83.00 | 98.00 | 6.00 | 67.00 | 77.00 |
| | | | 7.00 | 82.00 | 54.00 |

8.00 76.00 103.00

3.00 75.00 79.00

9.00 57.00 82.00

4.00 82.00 88.00

10.00 69.00 78.00

5.00 70.00 74.00

11.00 94.00 101.00

6.00 67.00 75.00

12.00 67.00 109.00

7.00 71.00 66.00

13.00 52.00 60.00

8.00 84.00 68.00

14.00 59.00 67.00

9.00 72.00 85.00

15.00 102.00 111.00

10.00 54.00 82.00

16.00 71.00 72.00

11.00 101.00 83.00

17.00 63.00 92.00

12.00 74.00 73.00

18.00 70.00 86.00

13.00 99.00 100.00

19.00 58.00 50.00

14.00 43.00 84.00

20.00 70.00 87.00

15.00 83.00 78.00

Control

16.00 52.00 57.00

Id Pretest Posttest

17.00 117.00 75.00

1.00 85.00 89.00

18.00 105.00 100.00

2.00 87.00 78.00

19.00 87.00 83.00

20.00 87.00 88.00

Appendix L5: Experimental and Control Groups' Scores in Cognitive Strategy

Experimental 19.00 16.00 19.00

Id Pretest Posttest 20.00 22.00 25.00

1.00 17.00 22.00

Control

2.00 17.00 17.00

Id Pretest Posttest

3.00 25.00 27.00

1.00 32.00 33.00

4.00 35.00 31.00

2.00 33.00 32.00

5.00 23.00 22.00

3.00 28.00 29.00

6.00 25.00 21.00

4.00 23.00 24.00

7.00 22.00 18.00

5.00 23.00 25.00

8.00 25.00 29.00

6.00 18.00 17.00

9.00 22.00 25.00

7.00 23.00 20.00

10.00 29.00 30.00

8.00 27.00 30.00

11.00 29.00 25.00

9.00 12.00 16.00

12.00 22.00 31.00

10.00 17.00 19.00

13.00 16.00 17.00

11.00 24.00 25.00

14.00 15.00 16.00

12.00 20.00 21.00

15.00 33.00 32.00

13.00 26.00 29.00

16.00 15.00 10.00

14.00 13.00 15.00

17.00 18.00 26.00

15.00 20.00 18.00

18.00 35.00 22.00

16.00 16.00 15.00

17.00 35.00 38.00

18.00 30.00 31.00

19.00 25.00 25.00

20.00 21.00 23.00

Appendix L6: Experimental and Control Groups' Scores in Meta-Cognitive Strategy

Experimental

Id Pretest Posttest

1.00 15.00 19.00

2.00 11.00 12.00

3.00 15.00 17.00

4.00 20.00 22.00

5.00 16.00 14.00

6.00 9.00 11.00

7.00 11.00 13.00

8.00 19.00 17.00

9.00 12.00 17.00

10.00 16.00 21.00

11.00 14.00 19.00

12.00 14.00 13.00

13.00 13.00 14.00

14.00 9.00 10.00

15.00 19.00 15.00

16.00 13.00 13.00

17.00 16.00 17.00

18.00 8.00 20.00

19.00 15.00 14.00

20.00 16.00 16.00

Control

Id Pretest Posttest

1.00 15.00 11.00

2.00 16.00 16.00

3.00 15.00 13.00

4.00 15.00 17.00

5.00 13.00 14.00

6.00 13.00 12.00

7.00 18.00 14.00

8.00 14.00 15.00

9.00 10.00 12.00

10.00 13.00 18.00

11.00 14.00 18.00

12.00 11.00 12.00

13.00 19.00 18.00

18.00 16.00 14.00

14.00 11.00 16.00

19.00 15.00 18.00

15.00 17.00 18.00

20.00 16.00 16.00

16.00 13.00 12.00

17.00 18.00 16.00