

THESIS

MEANING RECALL AND RETENTION: COMPARISON BETWEEN TRANSLATION  
METHOD AND PICTORIAL METHOD IN LEARNING VOCABULARY IN SAUDIS'  
SCHOOL

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## ABSTRACT

### MEANING RECALL AND RETENTION: COMPARISON BETWEEN TRANSLATION METHOD AND PICTORIAL METHOD IN LEARNING VOCABULARY IN SAUDIS' SCHOOL

Learning vocabulary is an essential component in learning a second language. SLA researchers have argued that explicit vocabulary strategy is more effective than incidental vocabulary strategy especially for learners at the elementary proficiency level. Previous studies have shown that the translation method is an effective mode of instruction for teaching English vocabulary for ESL and EFL learners at the elementary level. This study compared the effectiveness of translation method and pictorial method in teaching English vocabulary for EFL learners at the elementary level. The total number of participants was 36. All participants were from a secondary school in Saihat, Saudi Arabia. A repeated measures ANOVA was used to compare the effectiveness of both methods. The results indicated that there was a significant difference between the translation method group ( $MS = 8.76, SD = 7.67$ ) and pictorial method group ( $MS = 11.60, SD = 10.87$ ). Pictorial method participants scored higher than translation method participants on all the immediate recall tests and the delayed post-test. The results of the study rejected the null hypothesis because they showed that the pictorial method is more effective than the translation method for EFL learners at elementary level. The author of this study suggests the use of several methods for teaching EFL and ESL learners at elementary level instead of using one method.

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# CHAPTER I

## INTRODUCTION

Vocabulary knowledge is an essential element in learning a second language. In fact, it is among the most important components in every language. However, until the mid-1980s, vocabulary had been given less attention than other components of language (Coday & Huckin, 1997; Meara, 1995; Wesche & Paribakht, 1999a, as cited in Gass & Selinker, 2001). Many researchers have pointed out that the lexicon has been neglected in second language acquisition research. However, there are many reasons for believing that vocabulary is important in language learning and it may be the most important components for learners (read more details in chapter II).

Wilkins (1972) states that "without grammar very little can be conveyed, {but} without vocabulary nothing can be conveyed" (p. 111). Wilkins' statement shows the importance of vocabulary knowledge and how it is difficult to be understood without vocabulary. Of all errors types, it was found that lexical errors are the most common among second language learners. Furthermore, native speakers find lexical errors to be more disruptive than any other errors, such as grammatical errors (Johansson, 1978, as cited in Gass & Selinker, 2001). Gass (1988b, as cited in Gass & Selinker, 2001) states that grammatical errors result in structures that usually are understood by native speakers; however, vocabulary errors may cause communication misunderstanding. A native speaker may understand an ungrammatical sentence such as, "Mom taught me how to cook", but unlikely to understand the previous example without the lexis "taught". Thus, vocabulary knowledge is essential for second language learners.

Vocabulary knowledge is an important factor in learning a second language because it mediates language production. Furthermore, language production itself helps in language

acquisition. Moreover, vocabulary knowledge is important for comprehension, especially for oral comprehension. Tyler (1990, as cited in Gass & Selinker, 2001) states that lexical information is clearly used to determine syntactic relationships. However, it is not clear whether syntactic information is used in determining lexical identity, and if so, to what degree this is common.

Comprehension is also important for second language acquisition. If second language learners cannot isolate words from the oral utterances and cannot use lexical information to predict the meaning of the speech, they will not be able to comprehend the utterances. As a result, comprehension of the input depends on vocabulary depth and knowledge. Vocabulary knowledge is not only important for oral comprehension, but also for reading comprehension. For instance, learners cannot understand a reading passage if they do not have an adequate vocabulary and do not have the skills to guess meaning from context. In summary, vocabulary knowledge is an essential component of learning a second language for several reasons. Both native speakers and learners recognize the importance of getting the words right because lexical errors are numerous and disruptive. Thus, it is important for learners to have good lexical skills in order to produce sentences and to understand them correctly (Gass & Selinker, 2001).

From the time I was an undergraduate student in Saudi Arabia, I believed that vocabulary knowledge is very necessary to perform well in a second language. After I enrolled in the graduate program at Colorado State University, I found that my belief was not wrong and significant vocabulary knowledge is an essential component that goes side-by-side with other language components that help learners to achieve a high level of language proficiency.

How many words should second language learners know? Which words should ESL and EFL teachers teach? All these questions are very important to be asked and answered in the process of preparing a self-study plan or a second language course. In order to know how many

words a learner needs to know, it is important to know what the learner’s goal is for learning. If he or she wants only to survive a short vacation conversation in a foreign country, he or she would need a list of 120 items with vocabulary for everyday activities, such as buying and bargaining, reading signs, and ordering foods (Nation & Crabbe, 1991). However, if the learner’s goal is to pursue a degree in a foreign country, then vocabulary size of 2,000 words is a good basis for him or her at the initial stages. This vocabulary size is adequate for allowing basic conversation and providing a solid basis for moving into more advanced study. Nation and Warning (1997, as cited in Schmitt, 2000) argue that vocabulary size of 3,000 to 5,000 is essential for more proficient learners to be able to read authentic texts. However, if the reading material is challenging, the vocabulary size may be closer to 10,000 word families (Hazenberg & Hulstijn, 1996, as cited in Schmitt, 2000). If a learner wants to communicate in a particular subject area, he or she may need to have a foundation of higher – frequency vocabulary along with the specialized vocabulary for that area in order to succeed. Table 1.1 below shows the vocabulary sizes that are necessary for effective communication in a second language (read more details in chapter II).

Table 1.1

*Vocabulary size and text coverage*

Level	Number of Words	Text Coverage %
High-frequency words	2,000	87
Academic vocabulary	800	8
Technical vocabulary	2,000	3
<b>Total to be learned</b>	<b>4,800</b>	<b>28</b>
Low-frequency words	123,200	2
Total	128,000	100

Nation and Newton (1997, as cited in Schmitt, 2000).

Schmitt (2000) argues that not all vocabulary can be taught through explicit instruction. However, there are some vocabulary words that can be taught through explicit instruction, and the

question becomes which words to focus upon on. Nation (1995, as cited in Schmitt, 2000) suggests that the high-frequency words are important for any real language use, thus, they are worth the effort required to teach and learn them explicitly in classroom setting. High-frequency words consist of function words and content words that are necessary for second language learners in initial stages. The classic list of high-frequency words is West's (1953) *A General Service List of English Words* (GSL) and it consists of 2,000 word families. These 2,000 word families cover almost 80% of the running words in the text (as cited in Nation, 2001).

Meara (1995, as cited in Schmitt, 2000) states that the first 2,000 words of a language are very important for second language learners; thus, he encourages ESL and EFL teachers to teach them from the beginning of a language course. He encourages teachers to focus more on vocabulary than on grammar because as it was stated earlier that a second language learner can be understood without correct grammar, but he cannot be understood without correct lexicon. Ellis (1997, as cited in Schmitt, 2000) claims that vocabulary knowledge can aid grammar acquisition because knowing the words in a text or conversation helps learners to understand the meaning of the discourse, which in turn help them to acquire the grammatical patterns. Learners can learn by themselves how certain grammatical structures and sequences of words lead to certain meaning. Moreover, knowing the first 2,000 high-frequency words should increase the learners' comprehension of the speech they are exposed to and of the written texts they are reading.

Even though that researchers, teachers, and writing materials are agreeing on the importance of vocabulary knowledge for a second language acquisition, they still do not know the best methods that help learners acquire vocabulary. Teachers of English as a second language face many difficulties while teaching vocabulary. In order to deal with these problems, they have

to develop different techniques that meet their students' needs. One of these difficulties is that learners' L1 may have a negative impact on their learning of the L2 vocabulary. For instance, Arabic learners sometimes struggle with learning some of the English vocabulary because of the lack of similarities between the two languages. There are some Arabic words that are used in English and vice versa. For instance, the English words "Television," "radio" and "helicopter" are used in Arabic; however, knowing these words won't be useful for Arabic learners because they are common to most languages. As a result, L1 Arabic learners do not learn English vocabulary as quickly as other learners whose L1 have similarities with English language such as European languages (Swan and Smith, 2001).

Even though that learners' L1 sometimes may hinder their second language learning, there are many studies that show that learners' L1 has a positive impact in their second language acquisition. There is much agreement on the benefits of using learners' L1 in learning their L2. For instance, Ellis (1985) in his study shows that 'learners' L1 may be used as a resource that learners can use for translation to overcome their limitation while learning' ( as cited in Ramachandran and Abdul Rahim, 2004). Another study conducted by Swan (1997) shows that referring back to learners' L1 is one of the best strategies of good language learners. He also argues that this strategy is effective. 'Cross-lingual comparisons at different stages of language learning' is an important stage of learning new language for any learner. Otherwise he or she might never manage to learn a new language (as cited in Ramachandran and Abdul Rahim, 2004). Auerbach (1993) argues that the use of learners' native language in the L2 classroom will have positive outcomes on learners' second language learning especially in vocabulary area (read more details about the influence of L1 in learning L1 in chapter II).

There is a debate between whether “incidental” or “incremental” vocabulary learning strategy is better for teaching a second language vocabulary. Incremental vocabulary learning focus on teaching vocabulary directly to learners, while incidental vocabulary learning focus on comprehending meaning from context rather than direct teaching (read more about incidental and incremental vocabulary learning in chapter II). The communicative approach in teaching emphasizes the incidental learning strategy. The incidental learning strategy which used to teach vocabulary includes: inferring meaning from context, using dictionary and real stimulus, and giving English synonyms or antonyms (Richards and Rodgers, 1996). However, there are a number of studies on vocabulary acquisition that have shown the ineffectiveness of using incidental vocabulary instruction only in a classroom. These studies encourage the use of both incidental and incremental vocabulary instruction. The current vocabulary acquisition instruction emphasizes both incidental and incremental learning strategy in order to promote better learning because each method has its advantages and disadvantages (Sokmen, 1997, as cited in Ramachandran and Abdul Rahim, 2004).

Explicit vocabulary teaching strategy is recommended for learners at elementary levels. It is necessary to teach them all words until they have an adequate vocabulary to start make use of different strategies (Schmitt, 2000). There are several strategies for teaching vocabulary explicitly to learners such as, real objects, pictures, translation, etc. The translation method is usually criticized as “being indirect, taking time away from the second language, and encouraging the idea that there is an exact equivalence between words in the first and second languages” (Nation, 2001, p. 85). These criticisms are all true, but they also apply to the other strategies. For instance, there is no equivalence between a second language word and its second language definition. Pictures and objects strategies take time away from the second language as

using the first language to explain word's meaning also takes time away from the second language. Thus, translation has the advantages of being quick, simple, and easy to understand (p. 86). The translation method, which uses the learners' L1 in the learning of L2, has been suggested as an explicit mode of instruction in the ESL classrooms for learners whose English proficiency at the elementary level (Carter, 1998, as cited in Ramachandran and Rahim, 2004). Prince (1996) found that less-proficient learners could recall newly learned vocabulary that taught using L1 translation better than L2 context (read more details about translation in chapter II). Translation method allows learners to relate their L2 to their L1 knowledge and transfer meaning from their L1s which means that they are using their L1 as a reference when they comprehend the meaning of words (Nation, 1997, as cited in Ramachandran and Rahim, 2004). Ellis (1985, as cited in Ramachandran and Rahim, 2004) states that learners' L1s not only shapes learners' way of thinking, but also helps them understand the influence of one language over the other, mainly in the choice of lexical items.

Research shows that more new words can be learned using L1 translations than with L2-based definitions (Laufer and Shmueli, 1997; Ramachandran and Rahim, 2004). Moreover, word forms can be problematic and using the L1 to facilitate the form-meaning linkage may allow more cognitive resources to be focused on learning the form. It is unlikely that learners will absorb much contextualized knowledge about a word at the beginning stages anyway, so there is little disadvantage to using the L1 to establish initial meaning. However, after the initial stage, the advantages of meeting the new word in L2 contexts become important to enhance contextual word knowledge, and so the value of the L1 lessens. Thus, using the L1 at the beginning stages of learning a word is most efficient, but after this, L2 context is better. This suggests that

different teaching methods may be appropriate at different stages of vocabulary learning (read more about a translation method in chapter II).

Using pictures to explain the meaning of new words is another method to explain the meaning of a new word. Using pictures is seen as one of the most valid way of communicating the meaning of a word. However, Nation (1978b) states that any ways of communicating meaning involve the changing of an idea into more observable form is likely to be misunderstood, and may not convey the exact concept of the word. However, an advantage of using pictures is that learners see an example of the meaning and this may help them to remember the meaning of the word. If using pictures to communicate meaning is combined with a verbal definition then there is chance that ‘dual encoding’ will occur (Paivio and Desrochers, 1981, as cited in Nation, 2001). Dual encoding means that meaning is stored both visually and linguistically in the learners’ brain. Some pictures have a lot of details; thus, it may be necessary to present several examples so that learners can understand the concept (read more about picture method in chapter II).

**Purpose:**

The current study will examine the effectiveness of the L1 translation method in teaching and learning vocabulary in a second language for beginners compared to the pictorial method. Data will be gathered in Saudi Arabia, an EFL setting and all participants are Saudi females. There will be three immediate tests and one post-delayed test to measure learners’ ability to recall and retention newly learned vocabulary. At the end of this study, the author hopes that the result will give a clearer picture if the translation method is effective in teaching and learning vocabulary in a second language. Furthermore, the author hopes that EFL teachers in Saudi

Arabia would benefit from the current study. Even though the answers provided in the thesis of some of the questions might need further research and different testing methods.

### **Instruments and Setting:**

A preliminary vocabulary test was developed to choose the vocabulary that the participants do not know in order to use them in the pilot study. Three treatment sessions followed the preliminary test (read more details about instruments in chapter III). The study was conducted in a secondary school in Saihat, Saudi Arabia. All participants were Saudi EFL females at 11<sup>th</sup> grade- Art section (read more details about the instruments, setting, and participants in chapter III).

### **Research Question:**

1. Is there a significant difference between translation method and pictorial method in recall and retention new vocabulary by EFL Saudi learners at the elementary level?

### **Research/ Null Hypotheses:**

1. There is a significant difference between translation method and pictorial method in recall and retention new vocabulary at the elementary level.
2. There is no significant difference between translation method and pictorial method in recall and retention new vocabulary at the elementary level.

This thesis is divided into five main chapters: chapter I is the introduction of the thesis. Chapter II is the literature review chapter. The author in chapter II will review selected studies found in the literature that are directly related to the present study. Chapter III is the methodology chapter. In chapter III, the author will describe the setting, participants, and methods used in the current study. Chapter IV will represent the results of the study. Finally,

chapter V will represent a discussion of the results, implication for teaching practice, limitations of the study, and suggestions for further research.

## **CHAPTER II**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

Chapter two begins with a discussion of the common teaching approaches that date back to the 19<sup>th</sup> century and the role of vocabulary in each approach. Then, it discusses several features of second language acquisition such as, receptive and productive learning, the different steps in vocabulary acquisition process, incidental and incremental learning, vocabulary learning strategy, the role of memory in second language acquisition, the influence of L1 in L2 learning, the use of translation and picture to facilitate vocabulary learning, and the use of pictures to facilitate vocabulary learning. Finally, a review of relevant studies in the field is represented to look at the effectiveness of translation method in teaching and learning English vocabulary and the influence of learners' first language on learning a second language in a chronological order.

#### **2.2 The History of Teaching Methods and the Role of Vocabulary**

In this section, a description of the teaching approaches which were dominant in recent centuries and the role of vocabulary in each one of them will be discussed.

The first predominant teaching methodology from the beginning of the nineteenth century was the *Grammar- Translation Method*. Grammar- Translation Method was developed based on a procedure for teaching Latin and evolved out of the need to standardize foreign language teaching for children (Howatt, 1984, as cited in Schmitt, 2000). Students were given extensive grammatical explanation in their L1 (first language), lists of bilingual vocabulary, and some practice exercises to translate from L1 into L2 (second language) or vice versa. In this method, the content focused more on reading and writing skills. Vocabulary was only used as a way of illustrating grammar rules (Zimmerman, 1997, as cited in Schmitt, 2000). Students were

expected to learn new vocabulary themselves by using bilingual word lists; thus, the bilingual dictionaries became an important reference tool. Steinberg and Sciarini (2006) state that the Grammar- Translation Method “has enjoyed and continues to enjoy acceptance in many countries around the world,” especially in countries where language teachers are not fluent and the classes are very large (p. 114). Despite its advantages, there are many problems associated with the Grammar- Translation Method. One of the main problems with Grammar- Translation Method was that it focused on language analysis instead of language use. It also focused on reading and writing skills which did not help to develop the ability to communicate orally in the target language (Schmitt, 2000).

As the Grammar-Translation Method became increasingly sophisticated, a new pedagogical direction was needed. By the end of the 19<sup>th</sup> century, a new movement emphasizing listening and pronunciation appeared. This movement was known as the *Reform Movement* and one of its great achievements was the development of phonetics and the recognition of it as a science (Zimmerman, 1997, as cited in Schmitt, 2000). Another use-based method emphasizing listening skill was also developed by the end of the nineteenth century. This new method was known as the *Direct Method*. In this method, explicit grammar teaching and translation were set aside. Students were supposed to learn English through the same process as native speakers do, with listening first, then speaking, and only in later stages they would learn to read and write. Direct Method focused only on the use of the second language and students would be punished if they used their L1 in the classroom. Vocabulary was thought to be generally acquired through interaction in the classroom by asking and answering questions. Concrete words were taught by using pictures, mimic, and *realia* (real objects), while association of ideas was used to teach abstract words. However, like all other approaches, the Direct Method has its weakness. Schmitt

(2000) stated that foreign language teachers were not always proficient in the target language; thus, they were not able to provide students the sufficient input. It imitated L1 learning; however, it did not take into account the differences between L1 and L2 acquisition. One of the main differences is that L1 learners have abundant exposure to language, while learners of a second language have a limited exposure to the target language. Learners usually have a few hours per week for a year or two. This limited time for instruction was one of the factors that taken into account by the 1929 Coleman Report in the United States. This report concluded that this limited time for instruction was not adequate for to development of comprehensive language proficiency. Thus, it was recommended to teach secondary students how to read in a foreign language. The result of this stress was an approach called the *Reading Method* which was held along with Grammar-Translation and Direct Method, until World War II.

During World War II, it became clear that the Grammar-Translation Method and the Direct Method did not manage to form fluent users of the target language. The American military lacked people who are fluent in foreign languages and good teaching programs that could train soldiers quickly in oral and aural skills. Structural American linguistics developed a program based on behaviorist principals and on the Direct Method. This method was first called the *Army Method* and then it was known as *Audiolingualism* (p. 13). In this method, new words were introduced in drills, and vocabulary was thought to be acquired naturally through language formation habits. Students were expected to learn the language through drills rather than through an analysis of the target language. A similar method was used in Britain from 1940s to 1960s and it was called the *Situational Approach*. The name came from the idea of teaching language in sentence patterns replicating real situations. Vocabulary was chosen to illustrate and practice the sentence pattern and was presented as lists in substitution tables.

By the 1970s, the *Audiolingualism* fell out of favor after the publication of Chomsky's challenge to behaviorist theories of language learning. Chomsky claimed that language was partly innate and governed by abstract rules. He also claimed that students, who learned by the *Audiolingualism* method, would have difficulty moving from memorized dialogues and drills to real-life communications (Wright, 2010). In reaction to Chomsky's claim, Hymes (1972, as cited in Schmitt, 2000) developed the concept of *communicative competence*, which emphasized the importance of social interaction in language teaching (Zimmerman, 1997, as cited in Schmitt, 2000). A new approach was developed from this idea and became known as *Communicative Language Teaching* (CLT). Communication and cultural knowledge are emphasized in this approach. However, it is a meaning-based approach; vocabulary is given a secondary status. The communicative approach emphasizes the incidental vocabulary learning. Students are encouraged to guess meaning from context, use monolingual dictionaries, and avoid translation (Sokmen, 1997, as cited in Schmitt, 2000). CLT does not give enough guidance about how to handle vocabulary because it assumes that learners would learn L2 vocabulary as they learned vocabulary in their L1 (Coady, 1993, as cited in Schmitt). It has been now realized that little exposure to the target language and practice with functional communication will not ensure the acquisition of an adequate grammar or vocabulary. Thus, teachers are encouraged to teach students the high-frequency words and use different approaches in their teaching to encourage meaningful engagements with words over a number of exposures.

In the 1980s, Terrell developed the *Natural Approach*. Later, Terrell and Krashen worked together to elaborate the approach and provided it with a theoretical base. The Natural Approach applies Krashen's five hypotheses to the communicative language learning in the classroom. It emphasizes the use of comprehensible and meaningful input rather than grammar correction.

Terrell and Krashen claim that there is no need for direct instruction and practice for grammar and vocabulary because students acquire them naturally (Wright, 2010).

Although that grammar and vocabulary are treated separately in most teaching method, recent evidence from large *corpora* (language database) shows that grammar and vocabulary are fundamentally linked. Thus, it is difficult to think of them as separate entities. On the other hand, one should think of them as one entity without discrete boundaries, which is referred to as *lexicogrammar* (Schmitt, 2000).

This section represented the history of teaching methods and the role of vocabulary in each one of them. Then, it discussed the importance of grammar and vocabulary in language learning and teaching. In the present study, the author will evaluate the effects of two teaching/learning methods by investigating English vocabulary acquisition in native Arabic adult attending 11<sup>th</sup> grade. The present study may help clarify which method is better for teaching/learning vocabulary in a second language.

### **2.3 Second Language Vocabulary Acquisition**

This section will highlights features of second language acquisition; for instance, receptive and productive learning, the different steps in vocabulary acquisition process, incidental and incremental learning of vocabulary, vocabulary learning strategies, the role of memory in second language acquisition, the influence of L1 in L2 learning, the use of translation and picture to facilitate vocabulary learning, and the use of pictures to facilitate vocabulary learning.

The main reason behind learning a second language in general and vocabulary in specific is to achieve the ultimate goal, which is to know and understand information similar to that of native speakers of a language (Gass and Selinker, 2001). As a consequence, that would lead to

the need to know the vocabulary size of native speakers. Nation and Waring (1997, as cited in Schmitt, 2000), in their literature review of vocabulary size studies, concluded that a native speaker's vocabulary size is around 20,000 word families, and it is anticipated that a native speaker will add around 1,000 word families every year to his or her vocabulary size. A person will continue to learn new vocabulary throughout his or her lifetime.

Furthermore, Nation (2006) claims that second language learners need to know around 98% of the written or spoken words in discourse in order to understand it very well. In order to reach this percentage in written texts, learners need to know around 8,000 to 9,000 word families. On the other hand, learners need to know around 5,000 to 7,000 in order to understand a spoken discourse. However, Nation and Waring (1997, as cited in Schmitt, 2000) argued that learners can cope with small vocabulary size of 2,000 to 3,000, but if they want to function in English without any unknown vocabulary, the vocabulary sizes which were stated above are necessary.

### **2.3.1 Receptive and Productive Learning**

Receptive and productive knowledge are two of the main elements of knowing a word. Therefore, it is important to know the distinction between them before investigating some of the strategies which are used in learning vocabulary. The receptive knowledge has to do with reading and listening skills, while the productive knowledge has to do with speaking and writing skills (Palmer, 1921: 118; West, 1938; Crow, 1986, as cited in Nation, 2001). The receptive knowledge carries the idea that learners receive vocabulary input through reading and listening and try to comprehend it, while the productive knowledge carries the idea that learners produce vocabulary by speaking and writing in order to convey their messages to others. The terms passive and active are used to refer to productive and receptive vocabularies. Corson's

description of active and passive vocabulary is based on the idea of vocabulary usage and not on degrees of knowledge. He states that some vocabulary items are very well known, but never used; thus, they are not active anymore (Corson, 1995, as cited in Nation, 2001).

Studies have shown that learners are able to demonstrate more receptive than productive vocabulary knowledge; however, the difference between the two may be less than commonly assumed. Melka (1997) conducted several studies that claim that the difference between productive and receptive vocabulary knowledge is really small. One of Melka's studies estimates that 92% of receptive vocabulary is known productively (as cited in Schmitt, 2000).

Nation states that the terms receptive and productive apply to different kinds of language use and knowledge. However, when they are applied to vocabulary, they cover all aspects of what is involved in knowing a word. The process of knowing a word means knowing the form, meaning and use. The following is a table which lists the aspects using a model presented by Nation (2001).

Table 2.1

*What is involved in knowing a word?*

Form	Spoken	R	What does the word sounds like?
		P	How is the word pronounced?
Meaning	Written	R	What does the word look like?
		P	How is the word written and spelled?
	Word parts	R	What parts are recognisable in this word?
		P	What word parts are needed to express the meaning?
use	Form and meaning	R	What meaning does this word form signal?
		P	What word form can be used to express this meaning?
	Concept and referents	R	What is included in the concept?
		P	What items can the concept refer to?
	Associations	R	What other words does this make us think of?
		P	What other words could we use instead of this one?
Grammatical functions	R	In what patterns does the word occur?	
	P	In what patterns must we use this word?	
Collocations	R	What words or types of words occur with this one?	
	P	What words or types of words must we use with this	

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		one?
Constraints on use (register, frequency...)	R P	Where, when, and how often would we expect to meet this word? Where, when, and how often can we use this word?

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*Note:* In column 3, R= receptive knowledge, P= productive knowledge.

### 2.3.2 Vocabulary Acquisition Process

Studies have shown that the average educated adult native speaker of English knows around fifteen to twenty thousand word families. Many L2 learners of English also know thousands of word families. This section will explore the question of how English language learners can acquire such a large amount of vocabulary. Native English speakers learn vocabulary through simple exposure during the course of language use which called *incidental learning* and through formal education which called *explicit learning* (read more about incidental and explicit learning in section 2.3.3). Second language learners also acquire English words through the same processes, but in different contexts.

Regarding the way in which new vocabulary words are acquired, Hatch and Brown (1995) explain the five steps in the vocabulary acquisition process: (1) encountering new words, (2) getting the word form, (3) getting the word meaning, (4) consolidating word form and meaning in memory, and (5) using the word. In the first step of the vocabulary acquisition process, learners will meet new words in different contexts such as, on television, music, books, movies, etc. Then, they will connect the sound with the word form and this can be done by reading the word out-loud. Then, in order to get the word meaning students can use bilingual or monolingual dictionaries or guess the meaning from context. After that, to combine the word form and meaning in memory, students can complete a number of exercises such as, matching or translating words, filling in gaps, crossword puzzles, memory games, etc. Finally, to learn the

uses of a word, students might be asked to write sentences or texts, answer questions that require the use of the word.

In the current study, learners will encounter new words in the treatment sessions. They will connect the word form with the sound when they see the target words on the PowerPoint along with its pronunciation. Students in the translation group will get the word's meaning from the Arabic translation and students in the pictorial group will hopefully get the word's meaning from the picture which illustrates the meaning of the word. Finally, they will use the word when they will be asked to write the correct English word for the Arabic word or the picture at the delayed-post test (read more about methodology in chapter III).

### **2.3.3 Incidental and Explicit Learning of Vocabulary**

One of the major controversial issues within the field of second language vocabulary acquisition, which motivates the present study, is incremental versus incidental vocabulary learning and teaching. Some studies have shown that incidental learning is the main way of acquiring vocabulary in L1. Children acquire most of the vocabulary in their first language from their parents without direct instruction. They enter school at the age of 5 with vocabularies of around four to five thousand word families. Some studies have shown that children are exposed to their first language even before their born in their mothers' womb (Schmitt, 2000). Other studies have shown that the average educated adult native speaker of English knows between fifteen to twenty thousand word families. Thousands of word families are probably too many to be learned solely from formal education; thus, most L1 vocabulary knowledge has to be acquired through simple exposure during the course of language use. This suggests two main processes of vocabulary acquisition: *explicit learning* through the formal education and *implicit learning* through exposure when one's focused on language use, rather than the learning itself. Second

language learners acquire vocabulary through these same processes, but their learning context is different from children learning their native language.

Explicit vocabulary learning focuses on teaching vocabulary directly to learners in order to enhance the chance of new vocabulary acquisition. Even though that explicit teaching strategy is time consuming, it is worth the time to teach second learners the most frequent words in a language and technical vocabulary that learners will need in order to succeed in their education field. Elley (1989) and Brett, Rothlein, and Hurley (1996) found that vocabulary learning increased dramatically if the teacher explains a word when it occurs in the story (as cited in Nation, 2001).

On the other hand, incidental vocabulary learning can occur when learners focused on comprehending meaning rather than focusing on learning new vocabulary (Wesche and Paribakht, 1999b, as cited in Gass and Selinker, 2001). Incidental learning can occur from reading or from having conversations with others who speak the language. Words that not explicitly taught can be learned incidentally from exposure. It is necessary to increase the amount of exposure in order to enhance the incidental vocabulary learning because the lack of exposure is one of the problems facing the incidental approach (Schmitt, 2000).

A learner can start learning vocabulary incidentally from conversation from the beginning, but when it comes to reading, a certain amount of explicit instruction is necessary. Written language usually uses more low frequency vocabulary than spoken language; thus, teaching these infrequent words explicitly for second language learners is necessary especially for learners at elementary levels. Thus, explicit teaching is necessary for low proficiency learners until they reach a vocabulary size threshold that allows them to learn words incidentally from reading (Schmitt, 2000). In order for a second language learner to be able to read authentic texts

which is meant for adult native speakers, he or she needs to know around three to five thousands word families (Nation & Waring, 1997, as cited in Schmitt, 2000).

Sokmen (1997) states that “the pendulum has swung from direct teaching of vocabulary (the grammar translation method) to incidental (the communicative approach) and now, laudably, back to the middle: implicit and explicit learning” (as cited in Schmitt, 2000, p. 120). Even though that these approaches have developed chronologically, different views still exist. There are some educators who advocate the implicit acquisition of vocabulary mainly by guessing from context, while others have realized the importance of combining the two approaches (Coady, 1993, as cited in Schmitt, 2000). Despite its great impact on language teaching since the 1970s, Communicative Language Teaching has been criticized for prioritizing incidental vocabulary teaching. Some of these criticisms are whether beginners know enough vocabulary to guess from context, or not (Coady 1997, as cited in Schmitt, 2000) and the fact that incidental learning has not shown to be more effective than explicit learning strategies such as, the *keyword method*. The keyword method is a way of making a strong link between an unknown word and its meaning. This technique involves two steps after the learner has met the unknown word and has found its meaning. The first step is to think of a word from the first language that sounds like the beginning of the unknown word or all of it. The second step is to think of a visual image where the meaning of unknown word and the meaning of the keyword is combined (Nation, 2001). Moreover, other studies have demonstrated that although reading for meaning has increased L2 vocabulary acquisition, direct instruction has reached even better results (Paribakht & Wesche 1993; Zimmerman, 1997). These studies suggest that both explicit and incidental learning are necessary, and they should complement each other.

In conclusion, both incremental and incidental vocabulary teaching and learning are necessary for second language learners in different stages. Incremental vocabulary teaching is necessary at initial stages because learners need to build their vocabulary knowledge. Then, incidental vocabulary teaching and learning can be introduced in different context, such as an extensive reading program. Learners cannot learn all words in a language explicitly or incidentally. Thus, both incidental and explicit learning are necessary and they complement each other.

### **2.3.4 Vocabulary Learning Strategies**

Vocabulary learning strategies (VLS) is an important approach that facilitates vocabulary learning. VLS claims that learners' actions toward learning might affect their acquisition of language. Schmitt (2000) states that learners use different strategies for learning vocabulary, such as memorization, repetition, and taking notes on vocabulary. Using a variety of strategies in learning is more useful than using only one strategy.

Teachers are encouraged to consider the overall learning context before they recommend any learning vocabulary strategies to their students. There are a number of variables that determine the effectiveness of learning strategies, including L1 and culture of students, proficiency level, students' motivation and their purposes of learning the L2, the task and text being used, and the nature of the L2 itself. O'Malley and Chamot (1990) claim that students' cooperation in learning vocabulary strategy is an important factor. A study has shown that students who 'resisted strategy teaching training learned worse than those who relied on their familiar rote repetition approach.' Thus, it is important to consider the learning environment and to gain the students' cooperation (as cited in Schmitt, 2000, p. 133).

There is several vocabulary learning strategies. There is a list that contains fifty-eight different strategies (Schmitt, 1997, as cited in Schmitt, 2000). Table 2.2 below illustrates several of these strategies.

Table 2.2

*Vocabulary learning strategies*

<i>Strategy group</i>	<i>Strategy</i>
<i>Strategies for the discovery of a new word's meaning</i>	
DET	Analyze part of speech
DET	Analyze affixes and roots
DET	Check for L1 cognate
DET	Analyze any available pictures or gestures
DET	Guess meaning from textual context
DET	Use a dictionary (bilingual or monolingual)
SOC	Ask teacher for a synonym, paraphrase, or L1 translation of new word
SOC	Ask classmates for meaning
<i>Strategies for consolidating a word once it has been encountered</i>	
SOC	Study and practice meaning in a group
SOC	Interact with native speakers
MEM	Connect word to a previous personal experience
MEM	Associate the word with its coordinates
MEM	Connect the word to its synonyms and antonyms
MEM	Use semantic maps
MEM	Image word form
MEM	Image word's meaning
MEM	Use Keyword Method
MEM	Group words together to study them
MEM	Study the spelling of a word
MEM	Say new word aloud when studying
MEM	Use physical action when learning a word
COG	Verbal repetition
COG	Written repetition
COG	Word lists
COG	Put English labels on physical objects
COG	Keep a vocabulary notebook

MET	Use English-language media (songs, movies, newscasts, etc.)
MET	Use spaced word practice (expanding rehearsal)
MET	Test oneself with word tests
MET	Skip or pass new word
MET	Continue to study word over time

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The list above is categorized in two ways. First, the list is divided into two main categories: (1) strategies for the initial discovery of a word's meaning, and (2) strategies for remembering that word once it has been introduced. This reflects the different processes for learning a new word's meaning and usage, and for storing it in memory for future reference. Second, the strategies are further divided into five groupings as following: Determination strategies (DET), Social strategies (SOC), Memory strategies (MEM), and Cognitive strategies (COG), and Metacognitive strategies (MET) (Schmitt, 2000).

### **2.3.5 The Role of Memory in Vocabulary Acquisition**

Students do not necessarily learn what teachers teach them because memory has a great influence on language learning. Teachers should recognize that teaching does not necessarily cause learning. They should know that teaching can be a linear and step-by-step; however, learning is not necessarily linear, with only incremental advancement without rehearsal. Students might learn a word many weeks, months, or even years later, after he or she has met it a great number of times. Therefore, teachers should provide opportunities in which the students can frequently meet the target words. Schmitt (2000) states that students forget most of the new words after the end of the learning session, so it is important to have a review session soon after the learning session. The expanding of rehearsal could help to transfer the new words from the short-term memory to the long-term memory.

There are two different types of memory: *short-term memory* and *long-term memory*. Short-term memory is used to hold a small amount of information while it is being processed. Long-term memory stores unlimited amount of information to be used in the future. Thus, the goal of learning vocabulary is to transfer the lexical information from short-term memory to long-term memory during the process of learning. This can be done by various ways, such as the Keyword Approach and grouping the new words with already known words that are similar. Because the known words are already fixed in the mind, relating the new words to them provides a hook to remember them, so they do not forgotten easily. New words that do not have this connection are easily forgotten.

Words can be also forgotten even if a word is well known, as when a learner does not use a second language for a long time or stops a course of language study. In this case, it is called *attrition*. Studies have shown that lexical knowledge is more apt to attrition than other linguistic aspects, such as phonology and grammar. This is because vocabulary is made up of individual units rather than a series of rules, such as grammar. Studies have also shown that receptive knowledge does not decline dramatically, and when it does, it is usually affects unimportant words, such as low-frequency noncognates (Weltens & Grebdel, 1993, as cited in Schmitt, 2000). On the other hand, productive knowledge is more apt to be forgotten (Cohen, 1989; Olshtain, 1989, as cited in Schmitt, 2000). The rate of attrition is also independent of proficiency level; that is, learners who are high proficiency level will lose about the same amount of knowledge as those who are low proficiency level. Several studies have found that attrition usually occurred within the first two years, and then it decreased.

This long-term attrition is similar to short-term forgetting. For instance, when learners learn new information, they forget most of this information immediately at the end of the

learning session. After the major loss, the rate of forgetting decreases. By understanding the nature of forgetting, teachers can organize better review sessions that will help their students. They also can also indicate the importance of having a review session soon after the learning session. Learners can also understand how important it is to review new material soon after the initial exposure.

### **2.3.6 The Influence of L1 in L2 Learning**

There is no doubt that learners' L1 has a great influence on the learning and use of L2. Previous researches have shown that learners' L1 influence the learning and use of L2 vocabulary in different ways (Swan, 1997, as cited in Schmitt & McCarthy, 1997). For instance, Schachter (1974, as cited in Lightbown & Spada, 2006) described the phenomenon of 'avoidance' which caused by learners' awareness that a feature in the target language is so different from their first language, so they prefer to avoid it.

Furthermore, other studies have shown that there is a relationship between learners' awareness of the differences between their first language and the target language and their unwillingness to transfer from their first language to the target language. Ringbom (1986, as cited in Lightbown & Spada, 2006) found that the interference errors made in English by both Finish-Swedish and Swedish- Finnish bilingual were most often visible in Swedish because Swedish and English are related languages that share many characteristics which led learners to think that a word or a sentence structure that worked in Swedish might work in English. On the other hand, Finnish belongs to different language family; thus, learners use their first language less often to transfer to English. Hemchua and Schmitt (2006) studied the lexical errors of EFL compositions in Tai, and found that about one-quarter of learners errors were influenced by their L1s.

Even though that there is much evidence for first language influences on second language learning in the field on SLA, the best evidence for L1 influence comes from psycholinguistic studies. In the past decades, research on bilingual language processing has found that when second language learners read, listen, or speak in a second language “information about words in their first language is active” (Dijkstra & Van Heuven, 1998; Jared & Kroll, 2001, Marian & Spivey, 2003). Wu and Thierry (2010) have also found that people who learn a second language in adolescence or later retrieve the sound of words from their L1s. Other studies have found that learners’ L1 is active during L2 lexical processing at both beginning and advanced levels (Sunderman & Kroll, 2006).

Second language learners use their L1 in learning the target language in many ways. For instance, learners sometime say ‘What is the Japanese word for ...?’, or use bilingual dictionaries to look up unknown vocabulary. Even though when this does not happen, ‘an immediate association with a mother- tongue word is likely to be set as soon as possible’. In the past, it was necessary to avoid the mother-tongue while teaching a foreign language. Teachers try to explain the meaning of a word without translating; however, after the teacher had spent several minutes trying to explain the word ‘*curtain*’ to a class of French students, one of them would say ‘Ah, *rideau*’ (Swan, 1997). Many second language learners believe that translating helps them in learning second language skills; for instance, reading, writing, and vocabulary words, phrases, and idioms (Schmitt, 1997).

### **2.3.7 The Use of Translation to Facilitate Vocabulary Learning**

As it was discussed in the previous section, learners’ L1 has a great impact in the learning of L2. Thus, we come to the question: should translation be used in teaching and testing second language vocabulary? There is a general believe that first language translation should not be used

in the teaching of vocabulary. However, translation is one of number of ways of conveying meaning and it is not better or worse than other ways, such as the use of pictures, real objects, definitions, L2 synonyms and so on. Actually, the use of learners' first language to test or convey vocabulary is very sufficient (Nation, 2001).

One of the greatest advantages of using learners' first language in vocabulary testing is that it provides an easier way to explain the meaning of second language vocabulary. The use of the learners' first language meaning is like using a simple synonym, while a second language definition usually involves a definition that includes a relative clause or reduced relative clause, and reading such sentences require greater grammatical skills.

The use of first language translation provides a useful means of testing vocabulary, both receptively and productively, and in recall and recognition of meaning. The difficulties that caused by no exact corresponding between meanings in both languages are less than the difficulties that caused by the lack of connection between L2 definitions and the meaning they are trying to convey.

Learning second language words' form – meaning can be problematic for second language learners. As a result, using learners' first language translation to establish the initial form- meaning of the new L2 words' form with the corresponding L1 words which already exist in the memory is very useful (Barcroft, 2002). Moreover, new L2 words are stored more effectively in the brain when they are linked to their L1 equivalents (Kroll and Curely, 1988, as cited in Barcroft, 2002). Thus, using first language translation is a good method to teach second language words as any other methods.

### **2.3.8 The Use of Pictures to Facilitate Vocabulary Learning**

Many studies in the field of recall and retention have shown the increased memory performance for picture stimuli over than word stimuli. It is widely known that information processing can be more effective if it engages different levels of the cognitive system. Information is retained better if processing engages deeper semantic levels rather than shallow levels ( Craik & Tulving, 1975). A study by McBirde and Doshier (2002) stated that pictures are one source of information that engages deeper level of processing. Pictures represent features of objects; as a result, meaning can be gained from pictures even if one has little or no experience with the object illustrated (Hochberg & Brooks, 1962). In contrast, words are arbitrary symbols and processing them semantically takes a long time (Clark, 1995).

When word and pictorial information are contrasted in an explicit verbal recall task usually retention favors picture as it was stated earlier. This effect called the picture-superiority effect which had been extensively discussed in the literature (McBirde & Doshier, 2002).

Many theorists have tried to provide explanations for the picture- superiority effect. Two early theories suggested that picture superiority reflects a difference in the way that the pictures are encoded. The first theory is Paivio's dual-coding theory (DCT) (Paivio, 1991). The dual coding theory developed from several experiments on the role of imagery in associative learning (Paivio, 1963; 1965). "The theory assumes an orthogonal relation between symbolic systems and specific sensorimotor systems" (Paivio, 1991). Verbal system represents the structural and functional properties of language, while the nonverbal system represents the nonlinguistic features of language.

The dual coding theory distinguishes three different levels of processing: *Representational processing*, which refers to the direct activation of "longogens by linguistic

stimuli and images by nonverbal stimuli” (p. 259); *referential processing*, which refers to cross-system activation that required imaging words and naming objects; and *associative processing*, which requires “activation of representations within either system, accounting for spread of association among words or among images” (p. 259). All cognitive tasks require one or two of the representational processing and some may involve all three. For instance, the word *dog* activates the corresponding image and could activate the verbal associate *cat* and then create a new image of a cat and dog.

Dual coding theory claimed that verbal and visual information are processed differently in separate channels. Visual and verbal codes for representing information are used to organize new information into knowledge that can be store and retrieved for future use. Paivio claimed that pictures held an advantage over words because they are processed through two different routes, whereas verbal processed only through one route. While words processed only through a verbal pathway, pictures access an image code and a verbal code. That is, when processing an image, people attend to its visual features and verbalize its label internally. Having two types of codes connected to the pictures allow more chances of retrieval during a memory task (McBird & Doshier, 2002). One implication of this dual-code hypothesis is that the superiority effect should be eliminated when the pictures are not labeled or verbally encoded.

The second encoding theory of picture superiority is the sensory-semantic theory which suggested by and his colleagues (Nelson, 1979; Nelson, Reed, & McEvoy, 1977, as cited in McBird & Doshier, 2002; Nelson, Reed, & Walling, 1976). Nelson (1979, as cited in McBird & Doshier, 2002) claims that pictures have two encoding advantages over words. The first advantage, according to Nelson’s theory, is that pictures are more distinct than words. As a

result, each picture is encoded more uniquely which increase its chances for retrieval. The second advantage is that pictures access meaning more directly than words.

Although both theories have different advantage(s) for pictures, the dual-coding and sensory-semantic theories both provide explanations for picture superiority based on differences in encoding between words and pictures. However, neither the dual-encoding theory nor the sensory-semantic theory directly predicts differences in word and picture memory due to differences in retrieval task. These two theories emphasized more on encoding than on retrieval differences. Thus, these theories do not compare between automatic and conscious memory.

Many studies have investigated the effects of picture method on vocabulary acquisition of a second language. Tonzar, Lotto, and Job (2009) compared two learning methods (picture and word mediated learning) in order to evaluate the vocabulary acquisition of two foreign languages in children. The study results showed that picture-based method leads to a better performance than the word-based method.

The same two learning methods were compared by Chen and Lung (1989). In their study, Chen and Lung contrasted children (aged about 7) and adult in learning vocabulary. The results showed that child beginners named pictures in the L2 faster than they translated words from the L1 into the L2. On the other hand, adult beginners translated L1 words into L2 faster than naming pictures in L2.

#### **2.4 Empirical Studies on the Effects of Translation Method**

The following table includes several empirical studies which investigated the effectiveness of using translation method and learners' L1 in learning a second language in general and vocabulary in specific. The author thought it would be useful if studies that investigate the effectiveness of the translation method and the use of learners' L1 in learning a

second language are listed. Table 2.3 below represents a summary of some of the important studies in a chronological order, and it includes the source, participants, procedures, and the overall findings.

Table 2.3

*Summary for empirical studies on the effectiveness of translation method*

Study	Participants	Procedures	Overall findings
Chen and Leung (1989)	54 Chinese students from the Chinese University of Hong Kong. They were divided into three groups, with 18 in each group. The first group consisted of proficient college learners. The second group consisted of child beginners from second grader. The third group consisted of adult beginners.	Participants were tested individually. They were shown several drawings and they were asked to name and translate them.	For adults at low levels of L2 proficiency, translating from L1 to L2 is more sufficient than picture naming in L2. On the other hand, naming pictures was faster than translating for the child beginners.
Prince (1996)	48 college students from a French university. They were divided into weak and advance groups based on their TOFEL scores. Each group then was divided into two groups; one received translation instruction and the other context instruction.	Preliminary test; worksheet post-test. In the translation group, the students were given 22 words and were asked to translate them. In the context group, the students were given 22 English sentences with a blank, and they were asked to fill out the blank with the target word.	Advance group performed far better than the weaker group in both translation condition and context condition. The weaker group performed better in the translation condition than in the context condition.
Laufer and Shmueli (1997)	128 high school students from Israeli. The students' mother tongue is Hebrew. The students were divided into 5 groups. Four experimental groups	Treatment session; immediate test; delayed post-test. The 'list' and 'sentence' group was given 20 target words and were asked to study them in	The results showed that the best scores obtained when students' L1 is used.

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	and one control group. Each group had different teaching techniques with different modes of vocabulary presentations.	10 minutes. The ‘text’ and ‘elaborated text’ was given a passage to read and answer some comprehension question in 55 minutes. At the end of the treatment session the four groups were given 15 minutes to complete a close exercise test. The control group was asked to check the meaning of the 20 words without any instruction.	
Lotto and de Groot (1998)	56 first-year psychology students from the University of Amsterdam, with Dutch as their L1. The participants divided randomly into 4 groups of 14.	Two pretests and posttest. The pretests involved a picture naming in students’ L1 and assessment of the cognate relation between Dutch words and their equivalent in Italian. In the posttests, the participants received a picture or a Dutch word and they were asked to provide the Italian word; ANOVA were used to analyze the data.	The results showed that L2-L1 word pairs lead to better learning than L2-picture pairs, at least for elementary foreign language learners.
Ramachandran and Rahim (2004)	60 elementary ESL learners from a Malaysian secondary school. 30 of them were assigned for the translation group and the other 30 for the non-translation group.	60-item MC preliminary test, worksheets immediate test, worksheets delayed post-test; SPSS was used to analyzed the data.	Translation group scored higher than the non-translation group.
Liao (2006)	351 Taiwanese students from a five-year junior college in central Taiwan.	Three questionnaire; one interview guide.	Most participants believe that translation helps them to acquire English language skills.

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Hemchua and Schmitt (2006)	20 Thai English major students in third year of study at a university in Bangkok.	Writing an argumentative composition.	Nearly one-quarter of students' errors were judged to be influenced by learners' L1.
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A study by Chen and Leung (1989) investigated the patterns of lexical processing for beginning and proficient learners of a nonnative language to examine what factors are responsible for the pattern. The study was designed into three different experiments to investigate the possible effects of L2 proficiency and age of initial acquisition of L2 on an individual's pattern of lexical processing.

The first experiment was conducted to investigate the possible effects of nonnative language proficiency and age of acquisition of L2 on lexical processing. Participants in this study were three groups of native Cantonese speakers, with 18 subjects in each group. These three groups are: 1) adult proficient who were students in the Chinese University of Hong Kong and had studied English as a foreign language for over 12 years; 2) child beginners who were second year graders of the Christian Alliance H. C. Chan Primary School and had studied English as a foreign language for 2 years; and 3) Adult beginners who were students of the Chinese University of Hong Kong and had studied French for 2 to 3 years.

The materials used in this study consisted of 60 concepts, such as line drawings of concrete objects and their corresponding names on Chinese. The 60 concepts, divided into four cards of 15 stimuli in each card, were presented to all participants. Each participant saw two cards in line-drawing form and two in Chinese and was asked to response in his or her first language on the first half of the trails and in his or her second language on the second half of the trails. The participants were tested individually. They were instructed to name and translate the items as accurately as quickly as possible. The response time and number of errors for each card were recorded.

The authors analyzed the data using ANOVA with one between-subjects factor (groups: adult proficient, adult beginners and child beginners) and two within-subjects factors (response language: first or second language; and stimuli type: Chinese or pictures). Post hoc comparisons were conducted using t-test. The standard error for these values was 2.3%. The results revealed that when subjects responded in their native language, Chinese items ( $M = 1308$  ms) were found to be faster than pictures ( $M = 1505$  ms) for subjects of all three groups,  $t(51) > 3.5$ ,  $p < .01$ . In contrast, when participants responded using their second language, each group showed different results. For adult proficient, Chinese items and pictures produced similar results ( $M = 1034$  and  $1034$  ms, respectively),  $t(51) < 1$ . For adult beginners, Chinese items produced faster responses than pictures ( $M = 2165$  and  $2591$  ms, respectively),  $t(51) = 4.14$ ,  $p < .01$ . For child beginners, pictures produced faster responses than Chinese items ( $M = 2212$  and  $2653$ , respectively),  $t(51) = 4.23$ .

The results of the first experiment revealed that the patterns of results for adult beginners are different than adult proficient learners. The results for the adult beginners revealed that translating from L1 is faster than picture naming in L2. The results also showed that picture naming in L2 was easier than translating L1 into L2 for child beginners.

The second experiment was conducted to replicate findings in the first experiment for child beginners. The results for child beginners in the first experiment revealed that participants responded faster to pictures than to L1 words when using L2 as the response language. However, participants made more errors with regard to L1 words than to pictures. Thus, in this experiment, items that most child beginners missed were excluded from the stimuli, and two different groups of child beginners participated in the experiment. The participants were 64 native Cantonese speakers from second and fourth grades, and none of them participated in the first experiment.

They all had learned Chinese as their first language and had studied English for 2 to 4 years as a foreign language. The material was consisted of 48 items of two types, such as line drawing and their corresponding names in Chinese. These stimuli were selected from the first experiment, but excluded the items that most children missed in the first experiment. The procedure was the same.

The mean response time per item was computed for all items. The data were analyzed using ANOVA with one between-subjects factor (group: second and fourth graders) and two within-subjects factor (response language: native vs. nonnative); and stimuli type (Chinese or picture). Post hoc comparisons were conducted using *t-test*. The standard error was 50.90. The results revealed that the fourth graders were faster than the second graders,  $F(1, 62) = 7.59$ . The participants were faster when using L1 than L2 as the response language,  $F(1, 62) = 216.04$ . The results also revealed that when participants responded in L1, Chinese words were faster than pictures ( $M = 788$  and  $1123$  ms, respectively), while when the responded in L2, pictures were faster than Chinese words ( $M = 1780$  and  $2123$  ms, respectively).

The standard error was 1.8% as it was determined by ANOVA. The results revealed that the second graders had higher error rates for Chinese items than the fourth graders ( $M = 17\%$  and  $7\%$ , respectively),  $t(62) = 3.85$ ,  $p < .05$ , while no similar difference was found for pictures ( $M = 10\%$  and  $7\%$ ). Moreover, when participants responded in L2, the second graders had higher error rates than did the fourth graders ( $M = 25\%$  and  $14\%$ ),  $t(62) = 3.67$ ,  $p < .05$ , whereas no similar difference was found when the participants responded using their L1.

The second experiment showed that both the second and the fourth graders were faster in naming picture in L2 than translating L1 into L2. Furthermore, when the response was in L1, reading was faster than picture naming. This pattern of data is consistent with the concept-

mediation hypothesis. This hypothesis claims that child beginners might have used the concept-to-L2 link to produce L2 responses. However, it is possible that these children were not proficient in reading L1 words. As a result, the children may have needed more time to understand an L1 written word than a picture. This explains why child beginner responded faster in picture naming rather than L1 words when they responded in L2.

The third experiment was conducted to test two proposed explanations for the second experiment findings. The present experiment adopted the original naming and translating tasks for Potter, So, Von Eckardt, & Feldman (1984) to test how child beginners process words in their nonnative language.

Forty eight participants from fourth graders participated in this experiment. All of them had the same language as the subject in the second experiment. The stimuli consisted of 32 items of two types just as in the first and second experiment. An additional 6 items were used for practice. These stimuli were selected from the stimuli that used in the second experiment; however, items that most subjects missed in the second experiment were excluded.

Participants were divided into two groups of 24 subjects in each group. The subjects were tested individually like the first and second experiment. Subjects in the first group participated in the naming and translating conditions. The subjects were asked to name or translate the word or line drawing as soon as possible using different response language each time. In the second group, subjects were participated in category- matching task. In this task, participants were asked to decide whether the presented item 'was a member of the specified superordinate category' (p. 322).

The data analysis revealed that subjects were faster when they responded in L1 rather than L2. The interaction between response language and stimulus was significant,  $F(1, 23) =$

35.56,  $p < .001$ . The analysis for error data revealed that subjects made more errors when they responded in L2 rather than L1,  $F(1, 23) = 10.83$ ,  $p < .005$ .

The category-matching task was performed to measure semantic-access times for pictures and L1 words. The analysis revealed that the response to pictures was about 55 ms faster than that to L1 items,  $F(1, 23) = 2.79$ ,  $p = .11$ . The results this task reveals that for the child beginners, “the relative time needed to understand an L1 written word and a picture was not statistically different, although pictures seemed to be faster than words” (p. 323).

The major concern of the current study was whether proficient and beginning users of a second language use a similar way to process words in the new language. The results revealed that when required to respond in L1, all participants were more efficient in reading words than naming pictures. However, when participants asked to answer in their second language, they use different process. For adult proficient, translating from L1 to L2 and picture naming in L2 were equally efficient. For adult beginners, translating was faster than picture naming in L2. For child beginners, picture naming in L2 was faster than translating.

Another study is by Prince (1996) to investigate learners’ recall of newly learned words to determine the advantages and disadvantages of both context learning (CL) and translation learning (TL).

Forty eight students, enrolled at the Pharmacy Faculty of the University of Montpellier, volunteered to participate in the study. All of the subjects had been studying English as a foreign language for 5 to 8 years. For the purpose of the study, the participants were divided into two groups, weak and advanced, based on their TOFEL scores.

The material was composed of 44 average frequency English words. Each word has an equivalent translation in French, which was clear. All of the words were concrete, either

referring to actions or to objects. In order to form a list of words unknown to the participants, a pretest was administered involving three phases. At the first phase, the participants received a sheet of 100 words in L1 (French) and they were asked to translate them to the L2 (English). Forty four of the words were assumed to be unknown to the subjects, and the others were fillers. The sheets were collected, and then the subjects received another sheet with 100 English words and they were asked to translate them into French. Finally, the participants received a list of 44 sentences in English in which the words presumed to be unknown were replaced by a blank. The participants were asked to fill in the blanks with an English word, and if they could not find one in English, they could put in a French word instead.

The study phase and the recall phase took a place a week after the pretest phase. The participants were divided into two groups during the study phase. One group received a list of 44 English words and their translation and was asked to learn them. The other group received a list of 44 sentences that had been used in the pretest; however, this time with the target words appearing in the place of the blanks. The participants were asked to read the sentence and guess the meaning of the unknown words and then learn them. The study phase was the same for both groups, which was around 20 to 25 minutes. After the study phase, the participants did a different activity for about 40 minutes. During this activity, the participants did not encounter any of the 44 words they had studied. Then the recall phase took place for around 40 minutes. For the recall test, each participant received a sheet containing 22 to translate and 22 English sentences with a blank to be filled in. In the translation condition, half of the participants received French words to translate into English; the other half received English words to translate into French. In the context condition, the participants were given different sentences from those seen in the study phase.

Prince analyzed data by calculating the percentages of correct answers by group, learning condition, and recall condition. The results showed that the advanced learners had a higher rate of correct answers than the weaker group (67.33% vs. 48.73%). The results revealed that there is no interaction between the learning condition and group. Both groups performed better in translation condition than in the context condition which was surprising. Participants found it easier to recall words in a translation context than in the context condition (64.43% vs. 50.64). The results revealed that the translation condition gave rise to better performance than the context condition (80.2% vs. 50.7%). However, the direction of translation did not prove to be significant factor.

In another study, Laufer and Shmueli (1997), sought answers for the following questions:

1. Is short and long term memorization of new words affected by the quantity of context used in presentation?
2. Is short and long term memorization of new words affected by the language of presentation?
3. Is short and long term memorization of new words affected by the interaction of the quantity of context and language presentation?

The subjects who participated in this study were 128 from a high school in Israeli. The participants' mother tongue is Hebrew. The participants were in the highest level English classes with a normal average with a grade range from 'satisfactory' (60-70) to 'excellent' (90-97). The subjects were divided into five groups as following: the list group, sentence group, text group, elaborated text group, and the control group.

The material was consisted of twenty English low frequency words. The words were checked for previous knowledge before the experiment. The list group had a list of twenty

words. Ten words were translated into Hebrew and the other ten were paired with English definitions or synonyms. The sentence group had a list also with 20 words either translated or defined as for the list group, but with the addition of a sentence for each word. The text group had to read a passage from a British course book that is not use in Israeli high school. All 20 words appeared in the text and were glossed either in English or Hebrew. No clear contextual clues were supplied by the text; thus, learners cannot guess the meaning from context. The materials for the elaborated text group consisted of the original text which had lexical elaboration which facilitate participants' understating of the text and the meaning of the target words while reading the passage. The material of the control group consisted of the list of the 20 target words without translation or definitions.

At the study phase, the participants of the list group were asked to study the word pair list for 10 minutes. The sentence group was asked to focus on the words and read the sentences; and they were also given 10 minutes. Both the text group and the elaborated text group were asked to read the passage and answer the comprehension exercises. At the end of the study phase, the four groups were asked to complete a cloze exercise focusing on the 20 target words in 15 minutes. None of the four groups were told that they would be tested. On the other hand, the control group was asked to check the meaning of the 20 target words and prepare for a quiz that would be administered at the following day. At the retention test, all groups were given a multiple-choice test with English synonyms or definitions only. The English answers were not identical to the original English glosses that the participants had at the study phase. The test was given to all groups twice: immediately after the study phase and again after five weeks.

Laufer and Shmueli analyzed the data using descriptive statistics in order to answer the first question of the study which addresses whether the presentation method affects participants'

long and short-term retention scores or not. The results revealed that there is a significant difference between methods. The least effective method was the control group (non-teaching group) and the most effective method for long-term retention was sentence and list presentation. The second question of the study addresses the issue of the language used in presentation. The results showed that the best results were gained when glossing in the participants' L1 (Hebrew). Short-term L1 gloss ( $M = 8.30$ ) vs. L2 gloss ( $M = 7.24$ ) and long-term L1 ( $M = 7.60$ ) vs. L2 ( $M = 6.22$ ). The third question addresses the issue of the interaction effect. The results also revealed that the best scores gained when glossing on participants' L1.

Another study is by Lotto and de Groot (1998) to examine the roles of learning method, word frequency, and cognate status in learning unfamiliar vocabulary.

The participants who participated in the study were 64 first-year psychology students from the University of Amsterdam. The participants' first language is Dutch. All of them claimed not to have any prior knowledge of Italian; however, all of them had enough knowledge of English.

The material consisted of 80 pictures and the corresponding words which were selected from the 2 pretests. The 80 words consisted of four different groups: high-frequency cognates, high-frequency non-cognates, low-frequency cognates, and low-frequency non-cognates. In order to form the list, the authors performed two pretests before the actual experiment. The first pretest involved a picture-naming-in-L1 task that was to produce picture-agreement norms. In this pretest, the authors presented 224 pictures. The participants were asked to name the pictures in their L1, Dutch. The second pretest involved the assessment of the cognate relation between Dutch words and their translations in Italian. In this pretest, the authors presented the corresponding 224 Dutch-Italian word pairs and asked the participants to rate each

pair on 7-point scale on how similar the words in that pair were. The 20 participants who participated in these two pretests were not the same participants who participated in the main experiment, but were drawn from the same population.

The participants were randomly divided into 4 groups. Each participant was run individually in 2 experimental sessions. Each experimental session included a learning session and a test session. In the learning phase, each participant in the 4 groups first received 3 times to go over the same set of the 80 stimuli. For the 2 of 4 groups of participants, these stimuli consisted of the 80 Dutch-Italian words pairs selected from the pretests. The other two groups received the corresponding 80 picture-word stimuli, each including of a picture and its name in Italian. After all the stimuli had appeared three times, the test phase took place. In the test phase, one of the 2 word-learning groups and one of the 2 picture-learning groups was presented with stimuli similar to what they had in the learning phase. On the other hand, the remaining 2 groups received stimuli different than to what they had in the learning phase. All participants in all 4 groups had to produce the equivalent Italian words in response to each of the stimuli, picture or Dutch word. The participants were encouraged to produce their answers as quickly and as accurately as possible. Responses time were registered by a microphone. All participants came at the next day and went through the same procedure.

Lotto and de Groot analyzed their data using an analysis of variance (ANOVA). The factors included were: congruency, session, cognate status, and frequency. The results revealed that four of the main factors were significant by both participants and items. These were congruency, session, cognate status, and frequency. The participants in the congruent condition were faster than those in the incongruent condition; they were faster in the second session than on the first session; subjects responded faster to cognates than non-cognates; and they responded

faster to high-frequency words than to low-frequency words. The fifth variable, learning method, was also statistically significant. The word-learning condition produced a shorter retrieval time than the picture-learning condition. For the recall scores dependent variable, the participants had higher recall scores in the second session than in the first; recall was better with cognates than with non-cognates (86.47% vs. 71.96%); and recall was better with high-frequency stimuli than with low-frequency stimuli (82.59% vs. 75.85%).

Another study is by Ramachandran and Abdul Rahim (2004) to investigate the effectiveness of the translation method in teaching vocabulary to elementary level ESL learners. The authors sought answers to the following questions:

1. Do Malaysian elementary level ESL learners who learn words through translation method recall the meaning of the words learnt more effectively?
2. Are the translation methods effective for lasting word meaning recall?

The participants who participated in this study consisted of 60 ESL learners from a secondary school in Penang, Malaysia. Subjects who participated in this study was chosen because they met the requirements of the study, which includes similar first language (Malay) and elementary level ESL learners. The subjects were divided into two different groups. One group was assigned as the control group and the other as the experimental group. The experimental group received the translation method as the treatment; and the control group received the non-translation method as the treatment.

Three instruments were used in the study: testing instruments, reading materials, and teaching instruments. In order to choose the study's materials, the authors conducted a preliminary test to select 20 unknown lexical items from 60 lexical items which was taken from the 'Word List for the English Language Programme for the Secondary Schools- Form IV'. The

preliminary test was a multiple choice question format. In the test, each of the 60 lexical items was supplied with four options which were the possible definitions for a given lexical item. From the set of the 60 multiple choice questions, 20 lexical items which had the highest percentage of inaccurate response were chosen to be used in the main study.

In the treatment sessions, the experimental group was taught the lexical items using the translation method, while the control group was taught using a non-translation method. Each of the treatment sessions for the experimental and the control group lasted for 70 minutes, once a week for four weeks. English and Malay were used to teach the experimental group, and only English was used to teach the control group. For the experimental group, the meaning of the new lexical item was given in English and Malay and in English only for the control group. After teaching the new lexical items, reading materials were given to the subjects. The reading materials for the experimental group were simplified and the occurrence of the lexical items in context was emphasized. However, the reading materials for the control group were not simplified. At the end of each treatment session, the participants were given an immediate test in which they had to provide meanings for the lexical items learnt in the class. Subjects in both groups were allowed to give their answer either in English or Malay. One month later, the subjects were given a delayed post-test. In the delayed post-test, all the 20 lexical items were tested using the same format that was used in the immediate test.

The authors analyzed the data using the Statistical Package for the Social Science (SPSS). Recall the meaning of the lexical items was measured in terms of percentage and mean of correct answers. The results revealed that the subjects in the experimental group outperformed in both the immediate recall test and the delayed post-test of the meaning of lexical items. The results of the study show two characteristics of the translation method that may have contributed to the

translation method participants outperformed in word meaning recall. First, given that participants' L2 lexical knowledge is limited, instruction in their L1 may have made their learning of L2 lexical items more effective. Second, the subjects found learning the new lexical items using their L1 less tedious than trying to understand different explanations in English.

The findings of the study show that elementary level ESL learners recall the meaning of the words learnt effectively by using the translation method. The study also reveals that the effects of the translation method is more lasting for word meaning than recall among elementary level ESL learners. At the end, translation method seems to have positive impact on ESL elementary learners' recall and retention of meaning of vocabulary learning.

Another study is by Liao (2006) to examine learners' learning beliefs and strategies about using translation to learn English. Liao sought answers for the following questions:

1. What are Taiwanese students' beliefs about using translation to learn English?
2. What kinds of learning strategies employing translation do Taiwanese students report using?
3. What are the relationships among learners' beliefs about translation and their use of translation as a strategy?
4. To what extent do learners' background variable relate to their beliefs about and use of translation?

The participants who participated in this study were 351 Taiwanese students in a five-year junior college in central Taiwan. Most participants majored in English (51%), and the remaining majored in several majors, such as Japanese (13%), Management of Information System (14%), and International Trade (13%).

The materials used in this study included a survey which consisted of three sets of questionnaires concerning beliefs, strategy use, and personal background information. The materials also consisted of one interview guide. For beliefs measurement, the *Inventory for Beliefs about Translation (IBT)* was used; for strategy use measurement, the *Inventory for Translation as a Learning Strategy (ITLS)* was used; for background information items, the *Individual Background Questionnaire (IBQ)* was used. All of the three questionnaires and the interview guide were translated from English into Chinese, so that students with different English proficiency levels could understand the questions.

In order to collect the data, the researcher went to each class to administer the survey. At the beginning, he explained the nature and the purpose of the study to the participants and gave instructions about how to answer the questionnaires. The data of the interviews was collected after the survey was completed.

Liao analyzed the data using the SPSS and SAS system. He computed descriptive statistics, such as mean, frequencies, and standard deviation to summarize students' responses to the three sets of questionnaire. In the IBT questionnaire, the results revealed the most of the participants agreed that translation played a positive role in their current English learning experience ( $M = 3.5$ ). These findings were supported and validated by the interviews with ten participants. In the ITLS questionnaire, the results showed a medium use of translation as a learning strategy ( $M = 3.35$ ). Participants stated that they use translation to learn different skills in English, such as vocabulary, grammar, reading and writing. Liao then used MANOVA to examine the effects of participants' background on their beliefs about translation and how they use translation to learn English. The results showed that the participants' academic major had a significant effect on their beliefs of using translation in learning English. The results revealed

that subjects at foreign language majors tended to believe that translation could have negative impact on their learning; thus, they tend not to use it. However, participants at non-foreign language majors believed that translation help them to learn English faster. As a result, it appears that learners' academic background may affect their beliefs about translation and their strategy of learning.

In conclusion, most participants believe that translation a play a positive role in English learning experience and they showed a medium to high level use of translation as a learning strategy. Foreign language learners and more proficient learners tended to have negative beliefs about translation and less use of translation as a learning strategy.

Another study is by Hemchua and Schmitt (2006) to examine the various types of lexical errors and their frequency. The study addressed the following questions:

1. What lexical errors do the third-year Thai university students make in their English compositions?
2. Which of the errors are most frequent?
3. How many of the errors are attributes to L1 transfer?

The participants who participated in the study were 20 Thai students in their third year of study in a university in Bangkok. They learned English as a foreign language for ten years for three to five hours a week. The participants' average age was from 19 to 20 years old. They did not have enough experience in writing English composition.

Students were asked to write an argumentative composition of about 300-350 words in order to examine the type and amount of lexical errors in their English writing. Students were given 90 minutes to finish their writings and they were advised not to use their dictionaries while writing. The writing topic was about the advantages of urban or country living.

In order to determine what types of lexical errors were made by the participants, their English compositions were corrected by two native English teachers who are experienced in teaching English for Academic purposes. The lexical errors were classified into 24 sub-categories under two main categories: formal and semantic features. Formal errors are classified into three types: formal misselection, misformation, and distortions. Semantic errors are classified into two types: confusion of sense relations and collocation errors.

As for formal errors, the formal misselection of words was the most problematic error for participants in the data (15.33%), followed by distortions (14.56%), and L1-influenced errors 'misformations' (6.90%). These findings revealed that the similarity of form and parts of speech are the most serious problem in the Thai students' writing. For the four main semantic types of error, 'collocation' errors were the most frequent (26.05%), followed by 'confusion of sense relations' (24.9%), 'stylistic errors' (8.04%), and 'connotative meaning' (4.21%). Overall, semantic errors were about twice as frequent as formal errors (63.22% vs. 36.78%). These findings revealed that semantic errors are more problematic for Thai learners than formal errors. However, formal errors made up a considerable percentage of the total errors, and this implies that the students would benefit from developing their morphological and formal knowledge.

For error frequency, 'near synonyms' was the most frequent type of error (19.54% of the total errors). The second and the third most frequent errors were 'preposition partners' and 'suffix type' (12.64% and 9.2% of the total correspondingly).

For L1 transfers in lexical errors, nearly (23.75%) of Thai learners are attributed to L1 influence. Errors of L1 transfer mainly involve clauses and phrases. As a result, sentences tended to be longer and redundant. Moreover, the Thai language structure was frequently adopted when writing English. Even though that L1 transfer is not the only cause for learners' errors, it might

be useful to point out some differences between L1 and L2, such as divergent polysemy, cultural differences, and false friends. Introducing vocabulary learning strategies can be also effective so that the students can find their ways to cope with problems. For instance, students can learn how to use monolingual dictionary to find synonym. In conclusion, the results of this study can inform ESL/EFL teachers working with students from different backgrounds to highlight the range of lexical errors that need their attention.

## **2.5 Research Questions and Hypotheses**

### **Research Question:**

1. Is there a significant difference between translation method and pictorial method in recall and retention new vocabulary by EFL Saudi learners at the elementary level?

### **Research/ Null Hypotheses:**

1. There is a significant difference between translation method and pictorial method in recall and retention new vocabulary at the elementary level.
2. There is no significant difference between translation method and pictorial method in recall and retention new vocabulary at the elementary level.

## **2.7 Chapter Conclusion**

Chapter two included explanation of the different teaching approaches that have been evolved since the 19<sup>th</sup> century. That followed by discussion of the aspects of second language vocabulary acquisition and how learners' L1 affects the learning of L2. Then, the advantages of first language translation method in teaching L2 are explored. That followed by a review of selected empirical studies was included. Then, a description of how vocabulary is treated in Saudi curriculum. Finally, the research questions and hypotheses are stated. Chapter III will

include a description of the participants, setting, instruments, and procedure of administering the study.

Since many researchers suggest that the translation method is useful for teaching and learning vocabulary for elementary level learners, this study was carried out to investigate the effectiveness of the translation method compared with the picture method in teaching vocabulary to EFL and ESL learners.

## **CHAPTER III**

### **METHODOLOGY**

This chapter will present a description of the subjects who participated in the study, a description of the setting in which the study took place, the instruments, the procedure of the study, and the scoring. It will also present the research questions and hypotheses at the end of the chapter.

#### **3.1 Participants**

The initial sample of study consisted of fifty EFL learners; however, only those with a complete dataset were finally included in the study, for a total of thirty-six participants. All participants were female. The majority of the participants volunteered to take part in the study. All participants were from a secondary school in Saihat, Saudi Arabia. All subjects were at 11<sup>th</sup> grade, Art section. The participants' native language is Arabic. The two classes were of a comparable level because all of them were in the same grade and in the same public system school. According to the Department of Academic Affairs, participants are considered to be at low to intermediate level of their English language proficiency based on their English midterm exam with a grade range in each class from 'unsatisfactory' (40-50) to 'satisfactory' (60-70). All participants have learned English for 5 years, 3 years at middle school and 2 years at secondary school. Participants did not have writing, listening, or speaking practice in their English class. Nearly all participants were young adults with an average age of 17.

The subjects of the study were from two different classes. One class was randomly assigned to be the experimental group and the other class was assigned to be the control group. The experimental group (n= 25) received translation method as the treatment, whereas the

control group (n= 25) received pictorial method as the treatment. All data were collected within one week and a half in May 2011. Descriptive statistics for the sample are shown in Table 3.1.

Table 3.1

*Descriptive statistics for age for the translation and picture group*

Group	<i>N</i>	<i>MS</i>	<i>SD</i>
Translation group	21	17.05	.22
Pictorial group	15	17	0

### 3.2 Setting

The study was carried out in a secondary school in Saihat, Saudi Arabia. The school is a public school and it's under the supervision of Saudi Ministry of Education. English is taught as foreign language for four times a week, each class for about 45 minutes. The teacher for both classes which participated in the study is the same and she is Arabic native speaker from Saudi Arabia.

### 3.3 Instruments

This study used five instruments, one works as a preliminary test, three immediate tests to assess participants' ability to recall and retention new words after the treatment, one delayed test assess participants' ability to recall and retention the new words after 4 days from the treatment sessions. Thus, each participant completed a total of five different protocols.

#### a Preliminary Test

Before the actual learning experiment, the researcher performed a preliminary test in order to select 45 words to be used in the study. The preliminary test consisted of 80 English words. These words were tested using a multiple – choice format test. Each of the 80 English

words was provided with four different Arabic words. The participants were asked to choose one answer from the four choices given. From the 80 multiple – choice questions, 45 words which had the highest percentage of incorrect answer were chosen to be used in the main experiment. The 45 words are as follow: *beans, flour, bowl, goat, pan, road, sword, hammer, army, bird, desk, dish, forest, sand, wheat, castle, tower, anchor, kangaroo, crocodile, pear, rifle, broom, electricity, blanket, hen, grave, kite, ax, penguin, swan, mattress, crown, mill, rolling pin, pitcher, ginger, wheelchair, dairy, fetus, blender, rocket, stroller, skull, and eggplant*. The immediate test and delayed test for the main experiment did not have the same format as the preliminary test.

### **b Immediate Test**

Three immediate tests were held during this study. For the translation group, the participants were given the Arabic words that were taught at that particular session and they were asked to write the English association. For the pictorial method, the participants were given the pictures of the words that were taught at that particular session and they were asked to write the English association. The aim of this test was to assess the participants' ability to recall and retain the new words which were taught at each session.

### **c Delayed Post-test**

The picture – association group and the translation – association group had the same immediate test that they took before after each treatment sessions. The picture- association group had a delayed test where they were given the picture and they were asked to write the English word that goes with each picture. The translation-association group had a delayed test where they were given the Arabic word and they were asked to write the English word. The delayed test consisted of all 45 words that were taught before at the treatment sessions.

### 3.4 Procedure

All participants in both groups met with the researcher in five sessions each lasting for 45 minutes. At the first session, the participants received an introduction to the study and took a preliminary test. The purpose of the preliminary test is to form a list of words unknown to the participants to take part in the study. The participants received a sheet of 80 English words and they were asked to circle the correct Arabic word from the four choices given. The instruction of the test was written in English and Arabic to ensure that the participants understand what they were supposed to do. Moreover, an example was provided to ensure that the participants understand how to answer the test. The following is an example that was given to the participants. This example also illustrates the design of the test (See Appendix I).

#### 1. Arm

a) يد

b) نراع

c) مسطرة

d) ورق

The next three sessions were the treatment sessions. The treatment sessions took place after two days from the preliminary test because the author needed enough time to correct the preliminary test and choose the words which were going to be used in the study. Each of these treatment sessions lasted for about 45 minutes. At these three sessions, the new lexical items, which were chosen from the preliminary test, were taught to the participants. Fifteen words were taught per session. The words which were taught over the three sessions are presented in Table 3.2.

Table 3.2

*The Division of New Words Taught Per Session*

Session	New Words				
Session 1	Hammer	Army	Pan	Beans	Wheat
	Flour	Bird	Sword	Road	Sand
	Bowl	Goat	Desk	Dish	Forest
Session 2	Castle	Axe	Hen	Kangaroo	Anchor
	Grave	Blanket	Penguin	Electricity	Kite
	Pear	Rifle	Broom	Tower	Crocodile
Session 3	Skull	Crown	Rolling Pin	Dairy	Stroller
	Eggplant	Swan	Mattress	Ginger	Wheelchair
	Blender	Rocket	Mill	Pitcher	Fetus

During these three sessions, the experimental group was taught the vocabulary using the translation method, while the control group was taught using the pictorial method. Each treatment session for both the experimental and control group lasted for 45 minutes as it was stated above. At the beginning of each session, the researcher presented the vocabulary using Power Point and a projector. Each slide lasted for 10 seconds. In the experimental group, each English word was presented with its equivalent Arabic word with the English pronunciation of the word. In the control group, the English word was presented with a picture which represents the meaning of the word along with the English pronunciation of the word. The presentation was repeated for three times because repetition is necessary for elementary learners in order to master the oral and form of the lexical items (Gairns & Redman, 1986, as cited in Ramachandran & Rahim, 2004).

At the end of each treatment session, the participants in both groups were given an immediate test. In the experimental group, the participants were given the Arabic word and they were asked to provide the English words (See Appendix II). In the control group, the participants

were given the picture and they were asked to provide the English word that represents the picture (See Appendix III).

At the last session, the delayed post-test was administrated. In the delayed post-test, all of the 45 words which were taught at the treatment sessions were tested using the same format which was used in the immediate tests (See Appendix V). The delayed post-test was held four days after the last treatment session. See Table 3.3 below for clear picture.

Table 3.3

*Time line for the treatment sessions and tests*

Session	Procedure	
1 <sup>st</sup> session	Preliminary test	
2 <sup>nd</sup> session	1 <sup>st</sup> Treatment session for both groups	1 <sup>st</sup> immediate test
3 <sup>rd</sup> session	2 <sup>nd</sup> treatment session for both groups	2 <sup>nd</sup> immediate test
4 <sup>th</sup> session	3 <sup>rd</sup> treatment session for both groups	3 <sup>rd</sup> immediate test 3
5 <sup>th</sup> session	Delayed post-test	

*Note.* The treatment sessions started two days after the preliminary test and the delayed post-test took place after four days from the last treatment session

### 3.5 Scoring

For the immediate test, the total score for the test was 15. Each correct answer was considered one point. Each immediate test included all of the 15 words that were taught at that particular session.

For the delayed post-test, the total score for the test was 45. Each correct answer was considered one point. The delayed post-test included all of the words that were taught at the

treatment sessions in order to measure how much did the participants learned during the treatment sessions.

### **3.6 Research Questions and Hypotheses**

The study examined the effectiveness of translation method as compared to pictorial method in the recall and retention of new vocabulary by EFL learners at the elementary level in a secondary school in Saudi Arabia. The questions that the research aims to address are:

1. Is there a significant difference between translation method and pictorial method in recall and retention new vocabulary by EFL Saudi learners at the elementary level?

The hypotheses of the study are as following:

1. There is a significant difference between translation method and pictorial method in recall and retention new vocabulary at the elementary level.
2. There is no significant difference between translation method and pictorial method in recall and retention new vocabulary at the elementary level.

### **3.7 Chapter conclusion**

This chapter presented the research questions and hypotheses. It also presented the participants, setting, instruments, procedure and the scoring. The following chapter is chapter VI, and it will discuss the result of the study.

## CHAPTER IV

### STATISTICAL ANALYSIS AND RESULTS

Chapter IV represents the results of the study reported in chapter three. Descriptive statistics were calculated and compared. A repeated measure ANOVA was conducted to discover if there are a significant difference between-subjects and within-subjects.

#### 4.1 Statistical Analysis

Statistical analyses were conducting using IBM SPSS Statistics 19. The level of significance was set to be .05. Descriptive statistics was calculated and conducted to discover if there is any difference between the translation method group and the pictorial method group in recalling newly learned vocabulary in the three immediate tests and the delayed post-test. Repeated measure ANOVA was also conducted to assess the impact of translation method and pictorial method on participants' scores on the recall test, across three times periods (1<sup>st</sup> immediate test, 2<sup>nd</sup> immediate test, 3<sup>rd</sup> immediate test, and delayed post-test).

#### 4.2 Results

Descriptive statistics such as, means and standard deviations were computed to summarize the participants' scores on the three immediate tests and the delayed post-test. These descriptive analyses can help identify the overall patterns of students' scores in both groups in order to address the first and the second research questions.

Table 4.1 represents the descriptive statistics with regard to the three immediate tests and the delayed post-test for both groups.

Table 4.1

*Descriptive statistics for the three immediate tests and the delayed post-test scores*

	<i>MS</i>	<i>SD</i>	<i>N</i>
<b>Translation Method</b>			
Immediate test 1	6.48	3.09	21
Immediate test 2	8.19	2.91	21
Immediate test 3	8.67	3.79	21
Delayed post-test	8.76	7.67	21
<b>Pictorial Method</b>			
Immediate test 1	9.93	3.10	15
Immediate test 2	11.40	3.62	15
Immediate test 3	9.67	4.79	15
Delayed post-test	11.60	7.67	15

*Note.* The maximum score for the immediate test is 15 points and 45 points for the delayed post-test.

A repeated measure ANOVA analysis was conducted to assess if there is a significant difference within-subjects regarding the three immediate tests and the delayed post-test scores.

Table 4.2 below represents the scores of with-subjects effects.

Table 4.2

*Score of within-subjects effects*

	<i>SS</i>	<i>SD</i>	<i>MS</i>	<i>F</i>	<i>P</i>	$\eta^2$
<b>Tests</b>	49.16	1	49.16	1.61	.214	.045

The repeated measure ANOVA was also conducted to assess if there is a significant difference between-subjects scores. Table 4.3 below indicates the between-subjects effects.

Table 4.3

*Between-subjects effects*

	<i>SS</i>	<i>SD</i>	<i>MS</i>	<i>F</i>	<i>P</i>	$\eta^2$
<b>Groups</b>	241.39	1	241.39	4.41	.043	.115

### **4.3 Chapter Conclusion**

This chapter introduced statistical procedures, and sought answer to the study's hypotheses. Descriptive statistics were calculated and conducted to discover which group outperformed. Then, repeated measure ANOVA was conducted to discover if there are a significant difference between-subjects and within-subjects. The next chapter will include discussion and interpretations of the study's results.

## CHAPTER V

### DISCUSSION AND CONCLUSION

This chapter discusses the results of the study which were presented in the previous chapter. This chapter begins with interpretations of the results. Then, it discusses potential pedagogical implications for EFL and ESL teachers. Followed by limitations of the study, and lastly, it concludes with suggestions for further research and vocabulary teaching.

#### 5.1 Results Interpretation

The aim of this study was to examine whether there is a significant difference between translation method and pictorial method in recall and retention of newly learned vocabulary by EFL learners at their elementary stages of English language proficiency or not. Moreover, it aims to examine if learners are able to recall and retain new words better by using translation method than using picture method. The results of the study revealed that participants at the pictorial method group showed better recall of newly learned words than participants at the translation method; therefore, the results demonstrated the picture superiority effect which was discussed in chapter II. This finding contrasts with the assumption that the translation method will be more effective than the picture method for learners at elementary level of English proficiency.

As shown in Table 4.1, the means of the delayed post-test for the translation method group was ( $MS = 8.76$ ) vs. ( $MS = 11.60$ ) for the pictorial method group (See figure 5.1). The means of both groups revealed that participants at the pictorial method scored higher than participants at the translation method. However, taking into consideration that the total score for the delayed-post test for both groups was 45 points showed that all participants in both groups manifested weak performance. The participants at both groups were supposed to score higher than that; however, the results were disappointing. The results revealed that the participants in

both groups did not learn that much from the treatment sessions. This lack of learning, in the author's opinion, was the results of participants' lack of motivation to learn English as a subject. Learners did not know the reason of learning English as a subject in school. Some of them said that they do not want to continue their education abroad; thus, they do not know why they should take English classes. The author believed that EFL teachers should motivate their students to learn English and ask them several questions that lead them to think of the importance of learning English or any other foreign language. As it was stated above, the mean of the picture group was higher than the translation method, which was surprising because the author was expecting the translation group to score higher than the pictorial method.

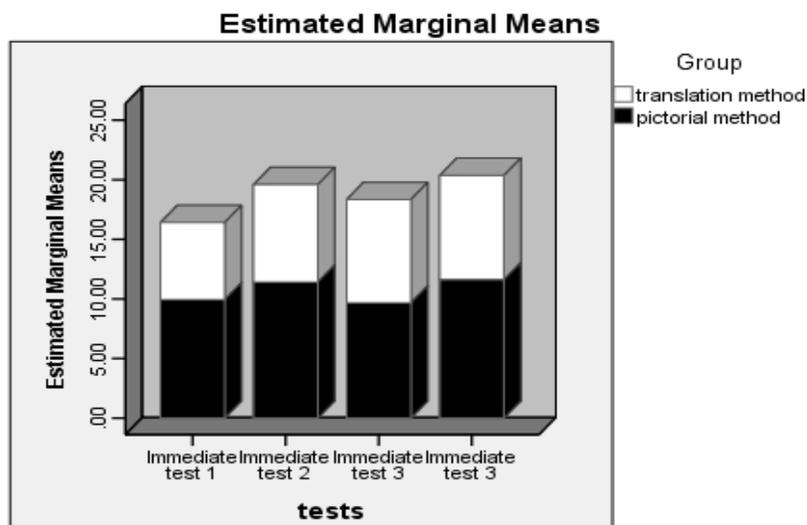


Figure 5.1

*Means for delayed post-test for both translation and pictorial Groups*

As shown in Table 4.1, the standard deviation of the delayed post-test for both the translation and pictorial group was ( $SD = 7.67$ ). This high standard deviation showed that the participants' scores are spread out over a large range of values.

The author considered the possibility that the results are due to the participants' lack of motivation to learn English as a foreign language. Even though that all participants volunteered

to participate in the study, they showed lack of interest to learn especially the participants at the translation group. Some of the participants at the translation group were not paying attention to the main researcher during the treatment sessions. Some of them were sleeping or doing their homework for other classes. On the other hand, participants at the pictorial method were more motivated. Some of them were taking notes during the treatment sessions and asking questions for clarification. The author believed if participants at both groups had the same level of motivations, the results will be slightly different because learners' internal or external motivation to affects their learning.

Moreover, as shown in Table 4.3, the results revealed that there was a significant difference in the effectiveness of translation method and the pictorial method in recall and retain newly learned words,  $F(1,35) = 4.41, p = .043$ , partial eta squared = .115. These results rejected the null hypothesis which stated that there is no a significant difference in the effectiveness of both groups.

## **5.2 Implications for Teaching Practice**

Many EFL and ESL teachers believe that it is necessary for language learners to use different strategies to learn new vocabulary in a second language. For instance, translation method can be used at the initial stages of learning. Using translation strategy is an effective strategy especially for learning vocabulary for EFL and ESL learners who are at the elementary levels of English proficiency, as it was discussed in chapter two. Ellis (1985) states that learners' L1 works as a resource that learners can use for translation to overcome their limitation in learning a second language (as cited in Ramachandran and Abdul Rahim, 2004). The use of L1 in the learning of L2 does not interfere with the learning of the second language in any way as some people thought (Sridhar, 1981, as cited in Ramachandran and Abdul Rahim, 2004).

Similarly, Corder (1968) claims that the use of L1 can facilitate the development process of learning the L2 by helping one progress rapidly along the route when L1 is similar to L2. Furthermore, the reliance on the L1 knowledge is basically relying on previous knowledge to facilitate new learning. This fits the aims of the Communicative approach which states that the new learning can be linked to previous knowledge in order for meaningful learning to take place.

Picture method is another method that can be used in classroom to teach new vocabulary. Picture method was found to be produced a better performance than the translation method in some cases. This superiority is due to the fact that this method allows direct link with the conceptual system; as a result, connecting directly the L2 word with the corresponding concept. For the picture- method participants of the present study, this superiority is obvious in the three immediate tests and the delayed post-test because they performed better than the translation- method participants. Participants who looked at the pictures may also make their own L1 translation then there is a chance that what Paivio calls “dual encoding” will occur (Paivio, 1991) (read more details about dual encoding on chapter II). Using pictures will also fits the aims of the Communicative approach because learners will link new knowledge with their previous knowledge to learn new concepts.

Teachers of English as a second or a foreign language should teach vocabulary explicitly to elementary level ESL and EFL learners by using different strategies. Even though that guessing from context is necessary for understating word meaning, it is a very slow process because learners usually have limited time for the English subject in class (Hunt and Beglar, 1999; Sokmen, 1997, Ramachandran and Abdul Rahim, 2004, p. 174). Furthermore, recent studies have shown that elementary level learners are often frustrated by guessing word meaning

from context, and that damage caused by it is difficult to overcome (Sokmen, 1997, as cited in Ramachandran and Abdul Rahim, 2004, p. 174).

From this study, teachers may gain insights into the role of both translation and picture methods in the learners' learning process and ways to integrate these methods in their teaching. Teachers should not prohibit students' use of translation, and they should be aware of situations when translation can be beneficial as students try to develop their English language system. English teachers might suggest the use of translation for some learners than others, based on their learning strategies and cognitive system. Teachers may also raise students' awareness about the advantages and disadvantages of translating, and to encourage them to use it with caution. They should also advise students to stay away from doing word-for-word translation. Teachers should also encourage students to use different strategies, such as guessing from context and Keyword method to learn new vocabulary.

### **5.3. Limitations of the Study**

As in all classroom studies, there are obvious limitations of this study. The first restriction is the sample size of this study. The sample size was very small even though it was large at the beginning of the study. Another limitation is the length of the treatment sessions which was very short (approximately 45 minutes for each treatment session). During this time, the author prepared the laptop to play the presentation for the participants, played the presentation for three times, and distributed the immediate test to the participants and collected them back from the participants. It is possible that with a longer treatment sessions, the participants would benefit more. Another limitation of this study was that the author tested only the productive learning, even though that receptive learning is a common technique for testing vocabulary acquisition at the early stages of learning. Furthermore, the author tested only one

group of learners, young adult high school students. Finally, participants' lack of motivation to learn English as a foreign language had a great impact on the study's results.

#### **5.4. Suggestions for Further Research**

The author suggests further research investigating the effectiveness of both translation-learning method and picture-learning method in teaching and learning vocabulary for low proficiency EFL learners in Saudi Arabia. There is a possibility that results might reveal different findings from the current study and may prove otherwise. The author suggests conducting further research with larger sample size from different schools because English teachers may have great impact on participants' motivation to learn English as a foreign language. The author also suggests testing students from different ages in order to do comparison between learners from different ages. It could be also valuable if a motivation questionnaire given to participants after the delayed post-test to know if participants' motivation to learn English impacts the results, which hopefully will result in better and more accurate data.

#### **5.5 Chapter Conclusion**

The present study investigated two hypotheses: first, there is a significant difference between translation method and pictorial method in recall and retention of newly learned vocabulary by EFL Saudi learners at the elementary level of English language proficiency. Second, there is no significant between the two methods in recall and retention of newly learned vocabulary. The results confirmed the first hypothesis and rejected the second hypothesis. Thus, the author suggested further research with larger sample size and different environments in order to get better and more accurate results.

In conclusion, EFL and ESL teachers should teach vocabulary by using different methods instead of focusing on one method only. For instance, teachers can teach vocabulary using both

the translation and pictorial method at the same time. Sometime using the pictorial method only can lead to confusion because the learners cannot interpret the correct meaning of the picture, so supporting it with learners' L1 translation can be beneficial for the learners.

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APPENDIX I

الفئة العمرية: 18-16 □ 25-19 □

Choose the right Arabic meaning to go with each English word.

اختراري الكلمة العربية الصحيحة التي تتوافق مع كل كلمة إنجليزية

The first one is an example for you:

الفقرة الأولى مثال على الاسئلة:

<p>1. Arm</p> <p>a. يد</p> <p>b. ذراع</p> <p>c. مسطره</p> <p>d. ورقه</p> <p>2. Cloud</p> <p>a. تقاحه</p> <p>b. باب</p> <p>c. غيم</p> <p>d. نجمه</p> <p>3. Candle</p> <p>a. شمعه</p> <p>b. أرض</p> <p>c. كوره</p> <p>d. طابعه</p> <p>4. Coin</p> <p>a. ملعقة</p> <p>b. قروش</p> <p>c. طاوله</p> <p>d. حاسب إلي</p> <p>5. Hammer</p> <p>a. سيارة</p> <p>b. مطرقة</p> <p>c. مسمار</p> <p>d. منشار</p> <p>6. Shore</p> <p>a. شاطئ</p> <p>b. بحر</p> <p>c. نجمه</p> <p>d. شمس</p> <p>7. Eggplant</p> <p>a. باذنجان</p> <p>b. ثوب</p> <p>c. ليمون</p> <p>d. بيض</p> <p>8. Bone</p> <p>a. ورق</p> <p>b. عظم</p> <p>c. أسنان</p> <p>d. جمجمة</p>	<p>9. Army</p> <p>a. يد</p> <p>b. فم</p> <p>c. جيش</p> <p>d. ضابط</p> <p>10. Wheelchair</p> <p>a. مرآة</p> <p>b. كرسي للمقعدين</p> <p>c. طاولة</p> <p>d. عود</p> <p>11. Blender</p> <p>a. رمال</p> <p>b. طاولة</p> <p>c. خلاط</p> <p>d. طحين</p> <p>12. Mattress</p> <p>a. مفرش</p> <p>b. حفل زواج</p> <p>c. سياحة</p> <p>d. مسرحيه</p> <p>13. Swan</p> <p>a. بطريق</p> <p>b. محرك</p> <p>c. يجعه</p> <p>d. ورقة</p> <p>14. Basket</p> <p>a. سله</p> <p>b. ملعقة</p> <p>c. ورقة</p> <p>d. كأس</p> <p>15. Flour</p> <p>a. ورد</p> <p>b. طحين</p> <p>c. شوكة</p> <p>d. خبز</p> <p>16. Mill</p> <p>a. نجمه</p> <p>b. طاحونه</p> <p>c. طحين</p> <p>d. تلفزيون</p>	<p>17. Bird</p> <p>a. صبورة</p> <p>b. حائط</p> <p>c. عصفور</p> <p>d. بطه</p> <p>18. Ginger</p> <p>a. ثوم</p> <p>b. طائرة</p> <p>c. زنجبيل</p> <p>d. خنجر</p> <p>19. Leader</p> <p>a. قائد</p> <p>b. جندي</p> <p>c. مدرس</p> <p>d. شرطي</p> <p>20. Forest</p> <p>a. شجرة</p> <p>b. غايه</p> <p>c. طاولة</p> <p>d. مرجع</p> <p>21. Pan</p> <p>a. بخور</p> <p>b. مقلاة</p> <p>c. عطر</p> <p>d. صحن</p> <p>22. Hen</p> <p>a. موز</p> <p>b. دجاجه</p> <p>c. ممرضه</p> <p>d. دكتور</p> <p>23. Stroller</p> <p>a. شارع</p> <p>b. عربة أطفال</p> <p>c. حجر</p> <p>d. كرسي</p> <p>24. Rocket</p> <p>a. مشط</p> <p>b. صاروخ</p> <p>c. طاوله</p> <p>d. العاب ناربه</p>
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25. bag	35. Rifle	45. Pitcher
a. طابعه	a. فأس	a. تفاح
b. كتاب	b. شجرة	b. إبريق
c. ميزان	c. بندقية	c. كأس
d. حقيبة	d. زبدية	d. سلم
26. Bear	36. Garden	46. Lamp
a. دب	a. طاولة	a. منشفة
b. بطه	b. مطعم	b. صحن
c. ورق	c. حديقة	c. مصباح
d. مناديل	d. سوق	d. كرسي
27. Beans	37. Grave	47. Leaf
a. محفظة	a. ملعب	a. شجرة
b. نقود	b. قبر	b. ورقه نبات
c. فاصوليا	c. تلفون	c. صندوق
d. كهرباء	d. مطرقة	d. سيارة
28. Bowl	38. Hat	48. Electricity
a. هاتف	a. عطر	a. كهرباء
b. زبدية	b. قبة	b. شمعه
c. ملعقة	c. قلم رصاص	c. شفاه
d. مسجل صوتي	d. مسطره	d. نور
29. Bottle	39. Castle	49. Machine
a. قنينة	a. منزل	a. حافلة
b. دفتر	b. قلب	b. قطار
c. شجرة	c. قلعة	c. آله
d. رمال	d. قبر	d. مسطره
30. Cup	40. Library	50. Axe
a. نافذة	a. متجر	a. طفل
b. كوب	b. مكتبة	b. فأس
c. شطرنج	c. مقهى	c. دراجة ناربيه
d. حاسب إلي	d. همبرجر	d. ورقة
31. Desk	41. Pear	51. Broom
a. منشفه	a. تفاحه	a. مكنسة
b. شريط	b. باخرة	b. طاولة
c. مكتب	c. كمثرى	c. أم
d. جدار	d. سيارة	d. نقود
32. Duck	42. Juice	52. Medicine
a. مكتب	a. مياه غازيه	a. طماطم
b. بطه	b. عصير	b. ديك رومي
c. عصفور	c. تفاح	c. دواء
d. نافذة	d. طابعه	d. قهوة
33. Dish	43. Tower	53. Map
a. مفروش	a. قصر	a. هاتف
b. وردة	b. كنز	b. حاسوب
c. صحن	c. ذهب	c. خريطة
d. سله	d. برج	d. ورقة
34. Crocodile	44. Ladder	54. Liquid
a. ورقة	a. منزل	a. عصير
b. تمساح	b. غرفة	b. سوائل
c. أظافر	c. سلم	c. مروحة
d. بطريق	d. سجادة	d. قهوه

<p>55. Penguin</p> <p>a. مطر b. البطريق c. نملة d. كرسي</p> <p>56. Sword</p> <p>a. سهم b. شمس c. سيف d. نجوم</p> <p>57. Yard</p> <p>a. حديقة b. شجره c. مسطره d. حاسوب</p> <p>58. Loaf</p> <p>a. نور b. قمر c. رغيف خبز d. كابتشينو</p> <p>59. Wheat</p> <p>a. سكر b. قمح c. مجفف شعر d. مخدة</p> <p>60. Anchor</p> <p>a. يبكي b. منزح c. متحمس d. المرسي</p> <p>61. Newspaper</p> <p>a. كتاب b. دفتر c. جريده d. قلم</p> <p>62. Needle</p> <p>a. خيط b. إبره c. قماش d. ورقة</p> <p>63. Fetus</p> <p>a. طفل b. بحر c. جنين d. ورقة</p> <p>64. Queen</p> <p>a. ملك b. ملكه c. طفل d. رجل</p>	<p>65. Dairy</p> <p>a. بيض b. مشوي c. منتجات الحليب d. ربيان</p> <p>66. Rain</p> <p>a. نجمه b. مطر c. حاسب إل d. قهوة</p> <p>67. Rolling pin</p> <p>a. سكين b. خاتم c. مرقاق العجين d. حذاء</p> <p>68. Road</p> <p>a. قطار b. طريق c. إشارة مرور d. رصيف</p> <p>69. Goat</p> <p>a. معطف b. ماعز c. قميص d. تنورة</p> <p>70. Salt</p> <p>a. نخله b. شاي c. ملح d. سكر</p> <p>71. Sand</p> <p>a. رمال b. ورقه c. بحر d. بحيرة</p> <p>72. Skull</p> <p>a. طابع b. مسطره c. جمجمه d. قلب</p> <p>73. Skirt</p> <p>a. طاولة b. تنوره c. سله d. تفاح</p> <p>74. Parents</p> <p>a. طفل b. الوالدين c. طابعه d. ورقة</p>	<p>75. Signature</p> <p>a. كتابه b. قلم c. توقيع d. مسطرة</p> <p>76. Blanket</p> <p>a. دكتور b. بطانية c. طالب d. جندي</p> <p>77. Mud</p> <p>a. قمامه b. طين c. نهر d. صبورة</p> <p>78. Kangaroo</p> <p>a. حجر b. ورقة c. الكنغر d. عصفور</p> <p>79. Crown</p> <p>a. قلاده b. سرير c. تاج d. حقيبة</p> <p>80. Kite</p> <p>a. مستطيل b. حاد c. قوس d. طائرة ورقية</p>
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## APPENDIX II

### First immediate test for the translation group:

Write the right meaning of the English word in Arabic.

أكتبني مرادف الكلمة الإنجليزية بالعربي.

1. مطرقة _____	6. طحين _____	11. زبدية _____
2. جيش _____	7. عصفور _____	12. ماعز _____
3. مفلاة _____	8. سيف _____	13. مكتب _____
4. فاصوليا _____	9. طريق _____	14. صحن _____
5. قمح _____	10. رمال _____	15. غابة _____

### Second immediate test for the translation group:

Write the right meaning of the English word in Arabic.

أكتبني مرادف الكلمة الإنجليزية بالعربي.

1. قلعة _____	6. قبر _____	11. كمثرى _____
2. فأس _____	7. بطانية _____	12. بندقية _____
3. دجاجة _____	8. بطريق _____	13. مكنسة _____
4. كنغر _____	9. كهرياء _____	14. برج _____
5. مرسى _____	10. طائرة مروحية _____	15. تمساح _____

**Third immediate test for the translation group:**

Write the right meaning of the English word in Arabic.

أكتبني مرادف الكلمة الإنجليزية بالعربي.

1. جمجمة _____	6. باننجان _____	11. خلاط كهربائي _____
2. تاج _____	7. بجعة _____	12. صاروخ _____
3. محور _____	8. مفرش أو مرتبه _____	13. طاحونه _____
4. منتجات الالبان _____	9. زنجبيل _____	14. إبريق _____
5. عربة أطفال _____	10. كرسي معاقين _____	15. جنين _____

APPENDIX III

First immediate test for the pictorial method:

Write the English word for each picture.

أكتبني الكلمة الانجليزية المناسبة لكل صورة.

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**Second immediate test for the pictorial group:**

Write the English word for each picture.

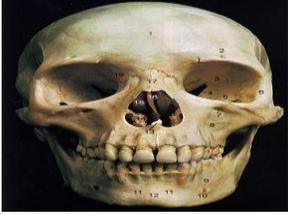
أكتبني الكلمة الانجليزية المناسبه لكل صورة.

**Third immediate test for the pictorial group:**

Write the English word for each picture.

أكتبني الكلمة الانجليزية المناسبة لكل صورة.

APPENDIX V

Translation group delayed post-test

Write the English word for each Arabic word.

أكتبني الكلمة الانجليزية التي تتوافق مع كل كلمة عربية.

-----	زنجبيل	-----	عصفور
-----	قمح	-----	قلعة
-----	فاصوليا	-----	تمساح
-----	منتجات الألبان	-----	مكنسة
-----	بطانية	-----	مقلاة
-----	طريق	-----	بأذنجان
-----	مفرش أو مرتبة	-----	مكتب
-----	جيش	-----	مرسى
-----	خلاط	-----	زبدية
-----	صحن	-----	فأس
-----	طحين	-----	كهرباء
-----	تاج	-----	غابه
-----	قبر	-----	جنين
-----	ماعز	-----	دجاجة
-----	طاحونة	-----	مطرقة
-----	كنغر	-----	إبريق
-----	طائرة مروحية	-----	صاروخ
-----	كمثرى	-----	محور
-----	بطريق	-----	جمجمة

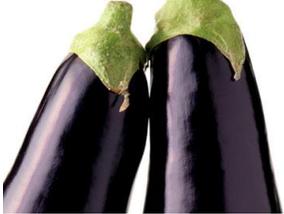
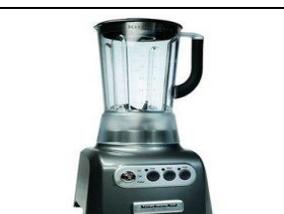
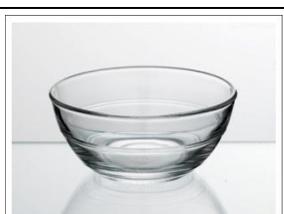
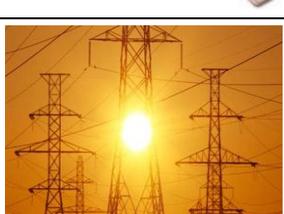
-----	بنديقة	-----	عربة أطفال
-----	برج	-----	بجعة
-----	كرسي معاقين	-----	رمال
		-----	سيف

### Pictorial group delayed post-test

Write the English word matching with the picture on the blank:

أكتبني الكلمة الانجليزية التي تتوافق مع الصورة.

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