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VOCABULARY ATTRITION IN THE DISCOURSE COMPREHENSION MODULE: THE CASE OF SECOND-YEAR EFL STUDENTS AT THE UNIVERSITY OF TLEMCEN

Thesis submitted to the Department of English in candidacy for the degree of Doctorate in Applied Linguistics and TEFL

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بسم الله الرحمن الرحيم

To the memory of

my father

and grandmother

Declaration of Originality

I hereby declare that I am the author of the present written work and that, I have compiled it in my own words. I also confirm, to the best of my knowledge, that it contains no material previously published or written by another person nor material which has been accepted for the qualification of any other degree or diploma of a university or institution. I certify, therefore, that it contains no plagiarism and it is the result of my own investigation, except where otherwise stated.

Dedications

To the loving people who enlightened my life and made the realization of this work possible:

- ✓ My dear mother, who offered me support throughout all my life, for her endless love, care, sacrifice, patience, encouragements and prayers,

- ✓ My husband for his love, patience, continuous moral support and permanent presence,

- ✓ My children, the candle of my life, Abdessamad and Meriem,

- ✓ My elder sister Amel who wholeheartedly gave me support throughout all my life,

- ✓ My parents-in-law for their patience and understanding.

Hadia HAKEM

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Abstract

Language attrition sprang out as a new field of research as regression in language performance in foreign language learners appeared. Vocabulary as one of the skills that can be forgotten gained the interest of researchers aiming at finding the rate and the causes of its attrition. The present work tries to uncover some of the variables that may have an impact on lexical attrition as a significant loss of the vocabulary learnt has been noticed on EFL students at the University of Tlemcen. The researcher opted for a longitudinal study to explore the phenomenon over a longer period (12 months) and observe the changes in vocabulary forgetting. She multiplied the instruments of research, thus she used six tests, two questionnaires and an interview with the participants to draw enough data. The results showed a considerable amount of loss in the studied lexis rather than failure to retrieve the words. As for the variables tackled, it was found out that lower proficiency level and inadequate use of vocabulary learning strategies were reliable factors having an impact on vocabulary forgetting; however, disuse over summer vacation, higher motivation and favourable attitude towards studying English, and vocabulary teaching methodology did not show influence on lexical attrition. Moreover, it was uncovered that productive vocabulary was more forgotten than receptive, and that verbs were more prone to be attritted. Yet, it can be concluded from the whole study that lexical attrition can be reduced as long as learners are highly motivated and showing a positive attitude to the language but exerting the required efforts to learn the language, notably by the use of the appropriate learning strategies, and at the same time maintaining exposure to the language to exert an unintentional learning of words and language as a whole.

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List of Acronyms

1° AM	Première Année Moyenne
2° AM	Deuxième Année Moyenne
3° AM	Troisième Année Moyenne
4° AM	Quatrième Année Moyenne
CWE	Comprehension and Written Expression
FL	Foreign Language
L2	Second Language
MHE&R	Minister of Higher Education and Research
PVT	Productive Vocabulary Test
PVLT	Productive Vocabulary Levels Test
RVT	Receptive Vocabulary Test
VKS	Vocabulary Knowledge Scale
VLS	Vocabulary Learning Strategies
VLT	Vocabulary Levels Test

GENERAL INTRODUCTION

General Introduction

Forgetting or losing language or language skills has recently been recognised as a dilemma threatening language retention. This could be noticed on immigrants returning to their mother lands after having stayed longer periods in the host country, and in students learning a foreign language. To this phenomenon the term language attrition is used.

In literature, the term attrition is used rather than loss; this is due to the consideration that the linguistic information is stored somewhere in the memory and cannot be accessed to. In cases of neurolinguistic dilemma such as aphasia or dementia the term 'loss' is the only one referred to, and this is not the concern of the present study nor that of any applied linguistics investigation.

Language attrition was firstly used to describe a decline in the foreign language performance by individuals. Lambert and Freed (1982) noticed that the students learning an Indian language experienced a loss in language skills even with the large amount of time spent to learn it. This was also widespread throughout the field of area studies. After conducting two major national surveys of university-based language and area studies, they found out that the problem of language skills loss was endemic to African, East European, Far East, Middle East, South Asian, and South East Asian studies (cited in Köpke & Schmid, 2004).

This observation on the loss of language skills inspired the researchers to organize a national conference at the University of Pennsylvania in 1980 dedicated to the theoretical background of research in the field. The papers submitted to the conference were collected in *The Loss of Language Skills* (Lambert & Freed, 1982). The publication of the book was a landmark work which has lost no importance and relevance to current research on language. Some papers were subsequently published in *Language Attrition in Progress* (Bert & De Bot Kees, 1986). The

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thirteen authors' collected papers treated first language attrition, dialect loss, and first, second and foreign language attrition. Cohen's contribution was the first one to treat foreign language vocabulary forgetting.

After the conference and *The Loss of Language Skills*, language attrition, previously known as language loss, emerged as a promising discipline with theoretical and methodological frameworks and background information from neighbouring disciplines (Köpke & Schmid, 2004). These disciplines are related to what is being lost (thus the focus of linguists), how it happened (thus the focus of psycholinguists and neurolinguists) and why it happened (thus the focus of sociolinguists, sociologists, and anthropologists) (Hansen & Reetz-Kurashige, 1999). The discipline has become a source of scientific interest and called for more research.

Throughout the last three decades following the 1980 Pennsylvenia Conference, studies on language attrition can be classified into three periods. In the first period (1980-1988), scholars concern was to draw the typology and nature of language attrition and succeeded to establish language attrition as an independent field of study different from the primarily existing field of language acquisition in applied linguistics. Subsequently, some attempts to suggest theoretical frameworks for studies in the field appeared notably, Lambert and Moore; Ginsburg; and Jaspaert, Kroon, and van Hout; all collected in *Language Attrition in Progress* (1986).

In the second period (1989-1999), the ground for attrition studies was prepared as many investigations were conducted and a methodology of research in the field had already started to reach a certain maturity. A special issue of *Studies in Language Acquisition* (1989) collected a number of empirical research already registered in the afore-mentioned books. Another collection of works in the field was edited in *First Language Attrition* (Seliger & Vago, 1991).

In the third period (2000 - up to now), no longer in its embryonic phase, language attrition is reaching maturity (De Bot, 2004). Its responsibility is to adapt

methods and theories from other fields of study that have proven their practical value, and simultaneously prove that studies in language attrition can contribute in their turn to those fields (De Bot, 2004). The publication of *First Language Attrition: Interdisciplinary Perspectives on Methodological Issues* (Kopke & Schmid, 2004), and *Language Attrition: Theoretical Perspectives* (Schmid, *et al.,* 2007) prove the great theoretical contribution to the field; besides, *Language Attrition* (Schmid, 2011) tries to show sociolinguistic features involved in language attrition and to familiarize the reader with experimental approaches to this kind of studies and provides guidelines on how to use data analysis techniques and how to apply them. Xiyangyun (2010) gives a detailed account of the three phases and the studies carried out mainly in Europe and the United States.

Studies in language attrition started also to gain interest in other countries such as Iran, China and Japan. Arab researchers as well were intrigued to know about attrition in their EFL learners, notably, Alharthi (2012, 2014, and 2015) and (Al-Hazemi, 2000). Their investigations revolved around lexical attrition in Saudi EFL learners. A similar interest motivates the present work trying to explore vocabulary attrition in the Algerian context, and more precisely, with second-year EFL students at the University of Tlemcen.

It is obvious that vocabulary items are the building blocks of any spoken language. Due to the incremental nature of vocabulary learning, EFL learners (and language learners in general) come across new words continuously and they are intended to make efforts to learn as much as possible in order to enrich their lexical store and reach a good proficiency level. Yet, second-year EFL learners suffer from vocabulary attrition. It has been noticed in the module of discourse comprehension (a module in which learners study and are supposed to develop their reading skill) that newly encountered lexis is forgotten. Sometimes it is a complete loss, other times they can't retrieve the already studied words (whether the words or their meanings).

It is evident that language learning cannot happen without backsliding, but what has been astonishing is that this happens largely and during the academic year.

What is commonly known about language attrition is that it happens as a result of disuse, but what is alarming is that the target subjects are still enrolled in their studies. What intrigues the researcher, then, is the search for the factors causing the target students' lexical attrition. Thus, the factors tackled actually are: the initial proficiency level, the inadequate or limited use of vocabulary learning strategies, disuse over summer vacation, vocabulary teaching methodology, and motivation and attitude. In addition, the type of vocabulary, be it receptive or productive, and the part of speech, whether verbs, nouns or adjectives, more prone to attrition are also studied.

The present exploratory and longitudinal investigation tries humbly to contribute to the field of second language attrition and its importance lies in finding the causes of vocabulary attrition in order to gain deeper understanding of the phenomenon. The findings may uncover considerable amount of information as regards vocabulary instruction and learning at the university level. It can elucidate the variables that may have an impact on vocabulary attrition. Besides, it aims at finding out the type of vocabulary and the part of speech more prone to be attritted.

Knowledge about the causes of forgetting help EFL teachers use materials and teaching methodologies and techniques in favour of better retention of what is presented to their learners. Textbook designers can also plan their courses in such a way that vocabulary attrition can be avoided or minimised. In the context of memory and forgetting it is important to know that most forgetting occurs soon after the learning sessions end and then slows down, so recycling and consolidating over repeated intervals is needed (Schmitt, 2000). Therefore, learning about the efficient way to present material and memorize it so that it is maintained for longer is a major concern of educators and why not autonomous learners taking in charge their own learning.

The present work aiming at investigating vocabulary attrition in second-year university students at the University of Tlemcen endeavours to answer the following research questions:

1. Do EFL learners suffer from retrieval failure or complete loss of the learnt vocabulary in discourse comprehension module at the University of Tlemcen?

2. What are the factors that have an impact on students' vocabulary attrition?

3. Are productive words attritted more than receptive words?

4. Which part(s) of speech is (are) more prone to attrition?

To these questions, the following hypotheses are suggested:

1. EFL university students suffer in some cases from retrieval failure and in most cases from complete loss of the studied vocabulary.

2. Students' vocabulary attrition may be due to: the lower initial proficiency level, the inadequate use of vocabulary learning strategies, language disuse, students' attitude and motivation, and vocabulary teaching methodologies.

3. Productive vocabulary is more prone to be forgotten than receptive.

4. Nouns undergo more attrition than verbs and adjectives.

In order to check the validity of the suggested hypotheses, a number of research tools will be used along the three intervals of the investigation. A Vocabulary Levels Test (Schmitt *et al.*, 2001) and a Productive Vocabulary Levels Tests (Laufer & Nation, 1995) will be used to know about the target students' proficiency level. A Receptive Vocabulary Test and another Productive Vocabulary Test developed by the researcher will be introduced to probe their receptive and productive vocabulary attrition in the trees phases of the study. Two Vocabulary Knowledge Scales (1 and 2) to learn about the effectiveness of the use of vocabulary learning strategies and the vocabulary teaching methodologies

introduced along the academic year. An interview and two questionnaires (version 1 and 2) will be conducted with the students at Time 1 and Time 3 to know about their motivation and attitude, the use of VLS, their opinions about the teaching methodology and the causes of their vocabulary forgetting.

The thesis consists of four interrelated chapters. The first chapter is three-fold; the first part provides an overview on language attrition and its typology and the main hypotheses. The second tries to give a brief idea about vocabulary in relation to its knowledge, memorization and forgetting shedding light on theories of forgetting. The third part depicts the factors of vocabulary attrition talked in the present work, namely, the initial proficiency level, VLS, vocabulary teaching methodologies, disuse, attriters' motivation and attitude towards English, in addition to the types of vocabulary (receptive and productive). Some already conducted investigations are presented to be compared to the present study. At the end some methodological issues still rising in language attrition research are discussed.

The second chapter revolves around the teaching/learning situation in which the study will be conducted and the study design. Then, language policy in Algeria from after the independence (1962) is presented and the ELT situation from the middle school to the university level is described. It provides also an overview of the LMD system and the English Department at the University of Tlemcen. Moreover, an account of the case study is detailed providing the aim and the steps of the study, in addition to the data elicitation tools.

The third chapter analyses the collected data through the already mentioned instruments in the three intervals of the investigation. The results will be reported separately and compared. After, they are discussed and interpreted to check the validity or rejection of the suggested hypotheses. The objectives behind this analysis are to explore the factors having an impact on vocabulary attrition, and to know about the type of vocabulary and part(s) of speech undergoing more attrition.

The last chapter is devoted to some suggestions and pedagogical implications based on the findings obtained from the analysis. They are hoped to provide some

ideas that may help EFL teachers (and language teachers in general) and learners to better learn vocabulary and commit it to the long-term memory so that it undergoes lesser attrition.

CHAPTER ONE:

REVIEW OF LITERATURE

1.1. Introduction

This theoretical chapter deals with the literature review related to vocabulary attrition. It attempts first to provide an overview on language attrition, being the background of lexical attrition, shedding light on its types and main hypotheses. Second, it is thought necessary to have an idea on vocabulary and forgetting. Therefore, the nature of vocabulary knowledge, vocabulary storage into memory, which type of memory it is stored in, the relation between memory and forgetting and the theories of forgetting, is what is presented in the second part of the chapter. The factors in relation to lexical attrition dealt with in the present study are depicted in the third part. These concern the attriters' proficiency level prior to the onset of attrition, vocabulary learning strategies used by the learners, receptive/productive vocabulary knowledge, vocabulary teaching methodology, the period of disuse and learners motivation and attitude towards the language being learnt. The last part tackles some selected investigations on the field; these are described and their results are reported to be compared to the actual study. Still some methodological issues are rising in second language attrition research. These are discussed at the end of the chapter.

1.2. Definition of Language Attrition

Foreign language attrition was used to describe the deterioration in the foreign language skills by speakers who ceased to use it. After the Pennsylvania conference (1980), and when language attrition emerged as a new field of research, many researchers attempted to provide a precise terminological framework that could serve as a base for any research on language attrition. Lambert and Freed (1982:1) in their overall definition of language attrition stated that:

> Broadly defined, language attrition may refer to the loss of any language or any portion of a language by an individual or a speech community. It may refer to the declining use of mother tongue skills by those in bilingual

situations or among ethnic minorities in (some) language contact situations where one language, for political or societal reasons, comes to replace another. Language attrition also refers to the deterioration of language skills in neurologically impaired patients and to the decline of certain types of language usage by elderly. Likewise, language attrition may be used to describe the death of an entire language. There is yet another sense in which the term language skill attrition is used which has received considerably less attention. That is the loss of language skills by those who have studied and then discontinued the use of a second language.

Three distinctions are noted in the definition. That between natural and pathological language loss, the one between individuals and a speech community and the last between the attritted languages and their environment (Xiangyun, 2010).

As for the first, natural language attrition refers to the non-pathological loss of language skills such as first language replaced by a second, whereas, pathological language attrition, refers to aphasia (the decline in language skills as a result of brain damage) or dementia (the pathological loss of language skills as a result of organic brain disorder).

As for the second distinction made between individuals and a speech community, this can be referred to as intergenerational and intragenerational. The former concerns language attrition across generations of some groups of people in a speech community and the latter refers to language attrition within individuals. The third distinction made refers to the languages (whether L1 or L2) which are lost and the environment in which they are lost. This distinction calls for the typology of language attrition which will be discussed below.

Many other scholars defined the concept. De Bot and Weltens (1991: 43) stated that foreign language loss "occurs with people who have learned a foreign language (FL) in an instructional degree after the courses has finished, and consequently lose it again." The definition is related to the previously cited

definition in its last part in the sense that attrition occurs after a period of instruction of an L2. However, it seems to be more appropriate to the concern of the present study and will be adopted as it refers to the FL setting, being English, with a close reference to vocabulary studied in the classroom but which was forgotten either during the period of instruction or after the end of formal instruction.

1.3. Types of Language Attrition

In what follows, research taken into account are restricted to natural language attrition. The types of language attrition are divided by Van Els (1986) into four categories which he thought of as "more helpful categorization ... than the division into two main sub-fields ... viz. that between 'intergenerational' and 'intragenerational' language attrition" (p.4). The taxonomy is based on what is lost (L1 or L2) and the environment in which it is lost resulting in four types.

1. loss of L1 in an L1-environment, e.g. dialect loss within the dialect community;
2. loss of L1 in an L2-environment, e.g. loss of native language by migrant workers;
3. loss of L2 in an L1-environment, e.g. foreign-language loss;
4. loss of L2 in an L2-environment, e.g. second-language loss by aging migrants.

(Adopted from, Van Els, 1986: 4)

The following figure represents the aformentioned types.

Language   L1   L2

Environment   L1-env.   L2-env.   L1-env.   L2-env.

Type   1   2   3   4
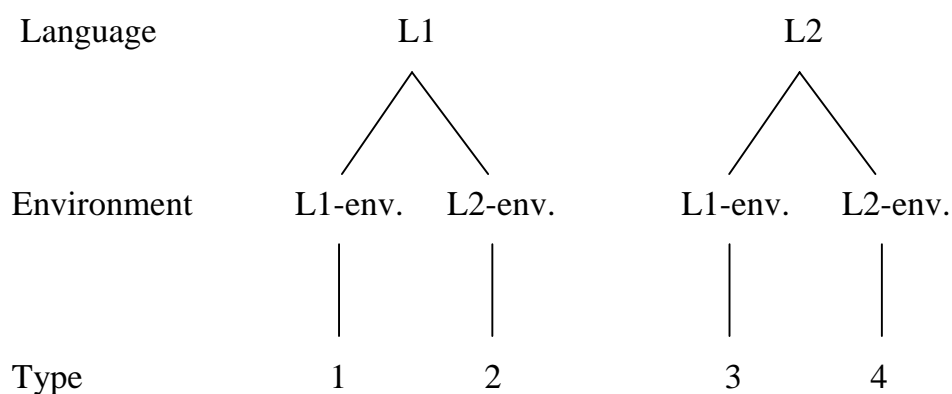
Figure 1.1: Types of Attrition Research. (Adopted from, Van Els, 1986: 4)

- The first type refers to attrition of a first language in the native language environment, such as first language attrition as a result of aging which can be exhibited in the elderly or dialect loss referring to a total extinction of a particular language or language variety.

- The second type refers to the loss of a native language in a second language environment, such as, attrition of the native language of immigrants and dialect loss outside the dialect community.

- The third type is concerned with the loss of a second language in a first language environment; it refers to attrition of a second language learned at school that falters after the end of the period of instruction, or to decline in second language proficiency due to remigration to a speaker's native country.

- The fourth type refers to the deterioration of L2 skills in an L1 environment, such as, second language attrition by aged immigrants.

The present research is related to the third type which is the attrition of L2, notably, English as a foreign language, in an L1 environment, viz., the Algerian context by EFL LMD university students. The study is concerned with natural and intragenerational attrition in the sense that it investigates vocabulary attrition of

EFL (non-pathological) students. All what is related to such studies is still hypothesised seeking for answers such as causes and rate of attrition.

1.4.   Hypotheses of Language Attrition

To carry out research on the field of language attrition, many hypotheses have been posited to study L1 attrition, being the primary concern of language attrition studies. These yielded as "interpretations of findings rather than as hypotheses that frame investigations" (Bardovi-Harlig & Stringer, 2010:15). The suggested hypotheses have been provided by Schmid (2002) and Köpke and Schmid (2004). These are: the regression hypothesis, the threshold hypothesis, the inverse hypothesis, the markedness hypothesis, the simplification hypothesis, and the dormant language hypothesis. Researchers' concern during the last three decades was not to test the hypotheses, even though many, if not all, were based on them (Cohen, 1974, 1975; Moorcraft and Gardner, 1987; Andersen, 1982; Berman and Olshtain, 1983; etc) but to uncover the nature of language attrition.

As for L2 attrition, most of the hypotheses have subsequently been used from L1 hypotheses, notably, the regression hypothesis, the critical threshold hypothesis, the inverse hypothesis, the interference hypothesis. Among these, the two most referred to are cited below.

1.4.1. Regression Hypothesis

The regression hypothesis is the most widely used theory to describe the nature of the attrition process. It traces back its origin to 1880 when it was first used by Ribot and later by Freud who connected it with aphasia. In 1940, Jackobson introduced it to linguistics framework and claimed that the path of language attrition is the mirror image of language acquisition (qtd in Hansen, 1999). The hypothesis finds support both at the interlinguistic and intralinguistic levels. At the interlinguistic skills level, studies led by, namely, Bahrick (1984), Weltens (1987), and Yoshida *et al* (1989) reveal that "receptive skills precede productive skills in acquisition and the reverse is true in attrition" (Hansen, 1999: 9). At the intralinguistic level (i.e., morphology, syntax, the lexicon), it is more difficult and

time consuming to prove that progression in learning is the reverse of attrition process.

But even though, some research have been conducted. Hansen (1999:9) reported that some studies led by Cohen (1975), Berman and Olshtain (1983), and Olshtain (1986) "demonstrated that the hypothesis holds." Bardovi-Harlig and Stringer (2010) reported the accuracy of the hypothesis making reference to some research. Anew, Cohen (1975) who investigated L2 (Spanish) attrition of three children after summer vacation found out that two of the three participants lost grammatical contrasts that had emerged only 1-3 months before vacation. Likewise, Hansen (1999) and Hayashi (1999) investigated L2 Japanese, adults and children, who attended Japanese schools during the Japanese occupation of Micronesia. They found out that the order of attrition was the reverse of acquisition when they were taught Japanese negation. Hedgock (1991) tested the hypothesis with the Spanish bilingual syntax measure. He uncovered that the accuracy orders didn't support the hypothesis but provide better basis for the threshold hypothesis.

1.4.2. Critical Threshold Hypothesis and the Inverse hypothesis

Another variation of the regression hypothesis is the critical threshold hypothesis which focuses on the quality of the acquired knowledge rather than on the order of learning. The hypothesis claims that there are "levels of attainment above which a linguistic system is immune to attrition" (Bardovi-Harlig and Stringer, 2010:16). The hypothesis has to do with the learners' proficiency level. Hansen (1999) explains that more proficient learners will be less vulnerable to attrition. Other words, learners can enjoy a proficiency level which protects their language store from attrition, and this attained level acts as a shield against language loss. Hence, it can be said that "the higher the proficiency level, the better the language retention" (Hansen, 1999:143). Research led by Reetz-Kurashige on Japanese loss as a second language reveals that "attaining a critical threshold of competency mitigates against language loss" (1999:41); contrary to Weltens' and Bahrick's findings. The contradiction between the findings lies in: (1) the age of the participants, (2) the skills measured, (3) the subjects' skills patterns (being

individuals and compared groups) (for more details see Reetz-Kurashige, 1999). Nagazawa (1999) found out, with his American university students learning Japanese as a second language, that "certain proficiency levels would resist (or allow) attrition" (1999:189).

Other researches do not support the hypothesis. It has been reported that Clark Jorden (1984) excluded low-level learners from their study because they showed severe attrition; they argued that attrition for first-year foreign language students "is almost total after a comparatively short period of time away from the classroom" (qtd in Bardovi-Harlig & Stringer, 2010). It could be noted, hence, that the hypothesis is supported by some studies and rejected by others which gives room to other hypotheses to be tested.

Anew, dealing with proficiency level, it is stated that "the higher degree of attainment, the lower the degree of attrition" (Vechter, Lapkin & Argne, 1990 qtd. in Hansen, 1999:7). From this quote, it is clear that there is an inverse relationship between the attained proficiency level and the amount of language loss. And this is what is referred to as the inverse hypothesis. Hansen reported from works of Godsall-Mayers (1981) that L2 German skills such as vocabulary recognition and reading comprehension were maintained better due to the high levels of proficiency. Research led by Reetz-Kurashige on Japanese loss as L2 found out support to the inverse hypothesis stating that "the higher the subjects' proficiency, the lower the degree of attrition" (1999:41). What could be drawn from the two hypotheses is that proficiency level plays a key role in language learning and learners reaching a certain level of knowledge undergo less attrition since the studies find out that the higher the proficiency level, the better retention and consequently the lower attrition is.

1.5. Definition of Vocabulary Attrition

A number of research was conducted on vocabulary attrition in which different aspects of vocabulary were investigated such as, the type of vocabulary (receptive vs productive), the frequency of words (low vs high frequent words), parts of speech being forgotten, to cite but a few. However, it seems that there is no

overt definition of vocabulary attrition in the previous studies even though the core of the work was vocabulary forgetting. These researchers referred rather to vocabulary knowledge, i.e., to what should language learners know about words before reporting what is attritted.

Sands *et al*. (2007, qtd. in Abbasian & Khajavi 2011:196) draw attention to the characteristics of lexical attrition which is featured by "loss of vocabulary, loss of semantic distinction, and in reduced performance ability". According to these authors, lexical attrition includes not only the form of the word but its meaning and appropriate use. This stresses the fact that vocabulary knowledge is so encompassing that makes "mastery of second language vocabulary calls for knowledge of the form, position, meaning, and function of words" (Nation, 1988 qtd. in Cohen, 1989: 136). And as the mirror of vocabulary learning, vocabulary forgetting similarly "entails the temporary or permanent loss of knowledge in some or all of these areas" (p.136).

Russell (1999) states that under condition of attrition, attributed vocabulary can either be forgotten or becomes inaccessible for production. In the same vein, Weltens and Grendel (1993) used the term forgetting instead of loss considering that the deterioration is in language use which becomes merely inaccessible and not permanently lost. On these accounts, the forgotten vocabulary can be attributed to the 'retrieval failure theory' of language loss which claims that the forgotten information is not gone but has become inaccessible. Forgetting is said to be "much like being unable to find something that we have misplaced somewhere. Forgetting occurs because the information we seek is temporarily inaccessible; if only we had the right cue, the information we seek could be successfully retrieved" (Loftus and Loftus, 1976 qtd. in Hansen and Reetz_Kurashige, 1999). Cohen's (1989) experiment on attrition in the productive vocabulary of his two Portuguese third language speakers asserts that the lexis was not lost but blocked by other interfering material which prevented the production of the desired words. Taken together, from the scholars' statements of vocabulary knowledge and attrition, vocabulary attrition rate can denote either the temporary or permanent inaccessibility of word

knowledge which encompasses knowledge of the form, meaning, function and use of the words.

1.6. Nature of Vocabulary Knowledge

What is meant by vocabulary knowledge should clearly be explained prior to starting investigation in vocabulary attrition. Knowing vocabulary is closely related to the type of vocabulary whether it is for receptive or productive purposes. Receptive knowledge of a word entails the ability to recognize it when it is heard or seen, in other words, while listening or reading, and being able to retrieve its meaning (Nation, 1990). Whereas productive word knowledge involves the ability to "express a meaning through speaking or writing and retrieving and producing the appropriate spoken or written word form." (Nation, 2001:25).

The dichotomy 'passive' vs 'active' is sometimes used instead of receptive and productive vocabulary; however, it is objected by some scholars arguing that listening and reading do not have features that can be attached to pervasiveness as there are productive features in the receptive skills when producing meaning for comprehension (Nation, 2001).

In addition to what has already been cited, word part, collocation, associations and appropriateness of words are needed for foreign language vocabulary knowledge in order to ensure mastery of vocabulary learning. A detailed range of word knowledge is described by Nation in which he classifies three major dimensions for word knowledge: form, meaning and use still in relation with receptive and productive words. Under each dimension, he listed what is involved in knowledge at the level of that dimension (see Table 1.1). A detailed explanation with illustrations is provided below following that of Alharthi (2012, 17-8).

Form	spoken	R	What does the word sound like?
		P	How is the word pronounced?
	written	R	What does the word look like?
		P	How is the word written and spelled?
	word parts	R	What parts are recognizable in this word?
		P	What word parts are needed to express the meaning?
Meaning	form and meaning	R	What meaning does this form signal?
		P	What word form can be used to express this meaning?
	concepts and referents	R	What is included in the concepts?
		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?
Use	grammatical functions	R	In what patterns does the word occur?
		P	In what pattern 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 one?
	Constraints on use (register, frequency, ...)	R	Where, when, and how often would we expect to meet this word?
		P	Where, when, and how often can we use this word?

Table 1.1.: What is involved in knowing a word (adopted from Nation, 2001: 27)

R = Receptive knowledge ,   P= Productive knowledge

Word form knowledge encompasses the ability to recognize and produce the word phonologically (when seen and written). It also includes knowledge of the parts which constitute it, for instance, '*knowledgeable*' is made up of '*know*' (the verb), '*ledge*' (suffix to form the noun), and '*able*' (suffix to form the adjective), and '*pens*' is the plural of '*pen*' with the addition of '*s*'. This should be mastered to recognize the word and to produce the required meaning.

Word meaning knowledge includes the ability to recognize the meaning that the word form carries (receptive) and the ability to produce this meaning in an appropriate context (productive), in other terms, the capability to make a relation between the form of the word and the meaning it carries in a particular situation.

For examples, there is a difference between '*fizzy*' and '*fuzzy*' and between '*boo*' and '*woe*' being pairs of words frequently confused especially by beginner English language learners. Likewise, a distinction should be made between '*bank*' and '*bank*' in '*they walk along the river bank*' and '*He works in a bank*' to make a difference between the concept and the referent.

Knowledge of word meaning means also knowledge of words that can be associated to it (which form a semantic map). Words such as: *pupil, teacher, education, blackboard* can be associated to *school.*

Word use knowledge is another aspect that is involved in word knowledge including (1) grammatical function of words, i.e. it is important to know how words are combined together in the language, the subject precedes the verb in an affirmative English sentence '*The child smiles*' and a noun follows an adjective '*black cat'*. In word use it is also important to know how words collocate with each other, these often occur together such as '*bread and breakfast*' and '*twiddle one's thumb*', and '*as thin as a rake'*.

To know constraints on use is another subcategory of word knowledge, for example, it is correct to say '*a pretty woman'* but inappropriate to say '**a pretty man'*.

From what has already been mentioned, since word knowledge calls for knowledge of form, meaning and use (Nation, 1988 qtd in Cohen, 1989), vocabulary forgetting may occur temporarily or permanently in some or all these aspects (Cohen, 1989). Besides, in studies of vocabulary attrition, word knowledge is "often defined as 'knowing the meaning of words'" (Weltens & Grendel, 1993:141); whereas in other studies, lexical knowledge is defined as knowledge of the orthographic representation of words, and more precisely, it is defined as the speed with which this information could be retrieved (Weltens & Grendel, 1993).

Therefore, it is necessary to learn how to write the word and how to pronounce it, besides it is evident that a learner should know the meaning it carries and the words it occurs with. What is taken into account and what could be

measured in the present study is knowledge of both the meaning and the form of the studied lexis because the objective behind foreign language learning is to be able to produce the language and not only to use it for receptive purposes. Now, when learning vocabulary, how is it learnt? Where is it stored? This is the concern of the following section.

1.7. Vocabulary and Memory

Memory and learning are closely related to each other. How information is processed and where it is stored show the role memory plays in language learning, and particularly vocabulary learning. EFL teachers generally complain about their learners' loss of the learnt vocabulary. In fact, Schmitt (2000: 129) find it natural in learning and stated that it must be recognized that "words are not necessarily learned in a linear manner, with only incremental advancement and no backsliding". Therefore, vocabulary learning occurs with learning and forgetting happening simultaneously as the ebb and flow until it is 'fixed' in the memory. This means that it is natural that part of what is learnt is forgotten but another share is maintained. Indeed, Schmitt's (1998, qtd. in Schmitt, 2002) posited students improved their lexical knowledge (precisely meaning senses of target words) about 2.5 times more than they forgot knowledge (over the course of one year) and the most forgotten lexis was known receptively. What can be drawn from the investigation is that there is an amount of lexis mentally stored during and after learning and those receptive words are forgotten more than productive ones. The other conclusion is that more proficient learners lose less than low proficient learners. From Weltens's (1989) study showing that most attrition happens within the first two years and then levelled off, Schmitt (2000) concluded that most language loss occurs after the end of the learning session then the rate of forgetting decreases. Figure 1.2. illustrates the flow of attrition.
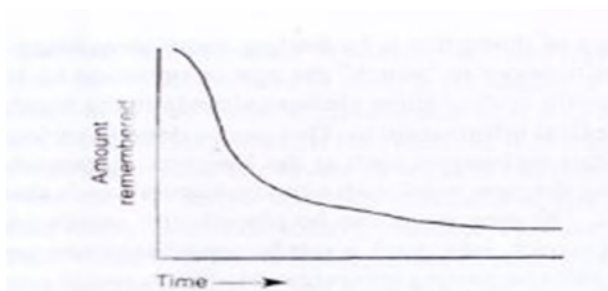
Figure 1.2. : Typical pattern of forgetting (adopted from Schmitt, 2000: 131)

According to the curve, retention drops just a period after learning then stabilises; in other words, a shorter-term forgetting occurs soon after the end of the learning session and then the rate of forgetting decreases resulting in a long-term attrition which levelled off. Following this principle of forgetting, if the information is reviewed at repeated intervals after the initial introduction, the rate of retention may be bettered. This is what is known as *'expanded rehearsal'* suggesting that learners need to review the studied material soon after the initial meeting and gradually increasing intervals of rehearsal. Russell (1979, qtd. in Schmitt, 2000) suggests an explicit memory schedule reviewing the studied information 5-10 minutes after the end of the study period, 24 hours later, 1 week later, 1 month later and finally 6 months later. Figure 1.2. represents the forgetting which can be minimised by expanded rehearsal.
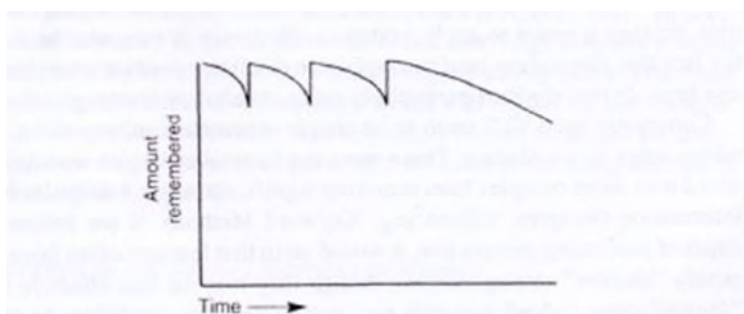
Figure 1.3.: Pattern of forgetting with expanded rehearsal (adopted from Schmitt, 2000: 131)

Language learners can then take responsibility of their own learning and check their level of retention of the studied lexis; they can decide about the interval to review words they encountered. So if they can remember them, they can increase the interval but if they forget, then, they have to shorten it (Schmitt, 2000). In this way, words are stored in the long-term memory (LTM) which is the final station of information that has been processed in the working memory after being held in the short-term memory (STM) for few seconds.

STM is "the brain's capacity to hold a limited number of information for periods of time up to a few seconds" (Thornburry, 2002: 23). This is the kind of memory that holds a phone number just as it takes to dial it, or to repeat a word that it is just being heard. However, to succeed learning vocabulary, a learner needs manipulation more than holding it for few seconds. So to commit the word and its meaning to the long-term memory, it should undergo more operations. The following step is, then, the working memory in which information is processed passing through many cognitive tasks such as reasoning, understanding and learning. It can be considered as a kind of work "where information is first, placed, studied and moved about before being filed away for later retrieval" (Thornburry, 2002: 23). A learner can use his previous storage (from LTM) and link it to a word being learned actually. For instance, '*line*' in English can be linked to '*ligne*' in French. The learner can link the spelling of the word with the omission of the '*g*' from the French word and decide that they refer to the same signifier. Likewise '*frail*' can be linked to its synonym '*fragile*' and then a connection is made between them by keeping in mind that the first three letters of the two words are spelt in the same way. Words can also be grouped together and studied such as '*snigger, chuckle, titter, giggle*' all related to *laugh*, or '*stagger, loiter, pace, stride*' all related to *walk*.

After this operation, the learnt item is supposed to move to the LTM, also called permanent memory which is "seemingly inexhaustible and can accommodate any amount of new information" (Gairns & Redman, 1986: 87). However, sometimes it seems that the learnt item is remembered during the lesson (i.e.,

beyond the 30 seconds of STM) but soon forgotten after its end. Then, it is not stored in the LTM. Thornburry (2002) explains that the LTM occupies a continuum from 'the quickly forgotten' to 'the never forgotten'. Language learners' challenge in this respect is to transform the learnt material from the quickly forgotten to the long-term retained. To do so, he suggests a number of principles such as repetition and retrieval. Repetition with spaced intervals creates a chance to review the word and to remember it, retrieval required for some activities oils the path for future recall. This is in line with what has been suggested by Schmitt (2000) represented by the second figure. Better retention and lesser attrition can be the result of expanding rehearsal over gradually increasing intervals. In other words, reviewing a word again according to the need causes a permanent storage. This need may depend on the difficulty and/or the frequency of the word. Nevertheless, astonishingly, some words are stored in the LTM effortlessly without making conscious attempt to remember them. This is an experience which is shared by all language learners.

1.7. 1. Memory and Forgetting

Research in language learning try to find the answer to the question 'why do we forget?' In fact, many studies strive to answer it. Psychological investigations attempt to study forgetting in the long-term memory but they rarely "cover the extended periods that we are interested in the context of language learning" (Weltens & Grendel, 1993: 136). The same authors think that, first, in the psychological literature, the periods over which forgetting is measured are limited to days or weeks at best. The interest in language studies is to cover longer periods of attrition, mainly after periods of disuse of L1 or L2. Second, the psychological experiments studied retention for materials to which the principles or systematic features were hardly comparable to those of any natural language. The main referred to experiment, in this context is Ebbinghaus's (1885) who used non-sense syllables to investigate memory retention of language.

The main answers to the question of forgetting are: either (1) the information is no longer available or (2) it becomes inaccessible, i.e. it cannot be retrieved.

From these answers, two theories of forgetting emerged in relation to long-term memory, these are: the interference theory and the retrieval failure theory.

1.7.1.1. Theories of Forgetting

The interference theory states that forgetting occurs when memories interfere with and disrupt one another, i.e. forgetting occurs as a result of interference from other memories or material (Baddeley, 1999). Interference happens in two ways: proactive or retroactive. The former occurs when the new material cannot be learnt because of an old one, and the latter occurs when the previously learnt material is forgotten because of the learning of a new task. However, learning two languages typologically related is advantageous on learning. Weltens and Grendel (1993) illustrate with the acquisition of Italian which is supposed to be easier if the learner has already some knowledge in French or Spanish.   This theory has rarely been referred to in studies in language attrition. Sympthe *et al* (1973, qtd. in Weltens & Grendel, 1993) assumed that interference was less likely with learners of higher levels of proficiency and Cohen (1989) and Olshtain (1989) found out that "interference occurs in the sense that L1 words start to crop up in L2 utterances" (Weltens & Grendel, 1993: 138).

The second theory is the retrieval failure theory which states that the material or the information is still in memory but the user cannot have access to it, i.e. it cannot be retrieved because the retrieval cues are not present at the required moment. These cues are the registered information about the situation when the new memory is stored (McLeod, 2008). Loftus and Loftus (1976) think that this theory views forgetting "as failure to retrieve some desired information" (qtd. in Weltens and Grendel, 1993: 137). This implies that the information has not disappeared but becomes temporarily unavailable. This is what happens with language attrition when a learner can retrieve a piece of information at a given moment but cannot do it at another and this is widely manifested by the 'tip-of-the tongue' phenomenon. Moreover, Hansen and Reetz-Kurashige (1999) explains that this inaccessibility to the previously learnt knowledge is evidenced by the use of strategies such as 'progressive retrieval', which is a strategy in which a learner, in search of a certain

item, starts with an inappropriate form but eventually arrives at the correct from, in addition to circumlocution and other hesitation repair behaviours.

The processing time is a critical element when measuring language attrition. Subjects being tested without time limits have enough time to squeeze information from their memory, and this couldn't give valid results. If the spontaneous speech is taken as the most relevant data in language acquisition, in language attrition research retrieval time needs to be controlled to force the subjects to use information they are not certain of (de Bot & Weltens, 1995). In the present study this processing time is taken into account. Then, a time limit is set for the tests taken by the students in order to approach valid results and to be able to interpret lexical attrition as objectively as possible.

1.7.1.2. Ebbinghaus's Forgetting Curve

Hermann Ebbinghaus was the first to lead an experiment on forgetting and studied memorisation and forgetting of 104 non-sense three letter words/syllables, also called trigram, such as '*zof*', '*wid*', '*laj*' or '*kaf*'. He used cards where the syllables were written individually. He learnt each series of 12 words alone with a pause of 15 seconds between each of them. He repeated the operation until he learnt the whole list of words. He repeatedly tested his retention over various time periods and jotted down the results and represented them in the well-known 'forgetting-curve' as represented below.
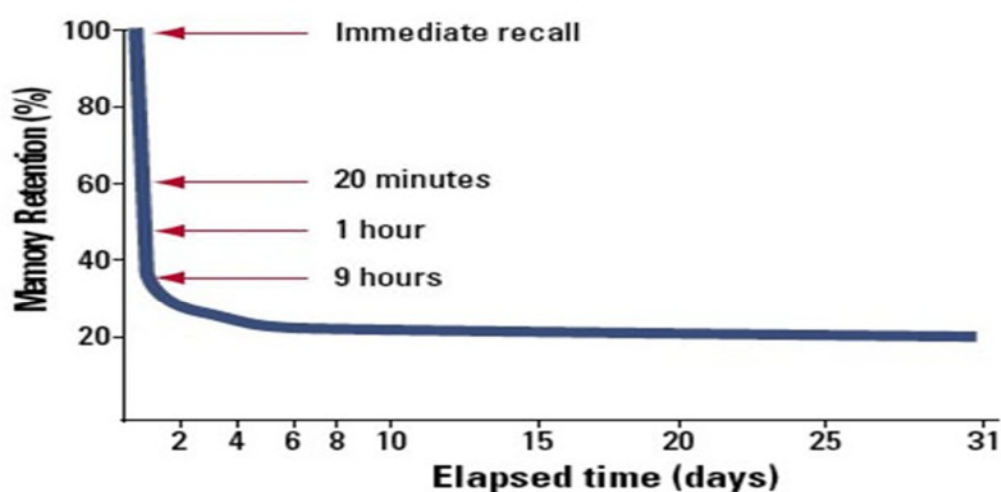
Figure 1. 4.: Ebbinghaus Forgetting Curve

It is clear from the graph that attrition proceeds quickly during the first 20 minutes after learning and within an hour half of the learnt material is forgotten, and within a couple of days, retention drops sharply down to less than 30%.

These results suggest that a certain percentage of knowledge tends to be forgotten over time apart from the proficiency level. Hedgcock (1991 qtd. in Weltens & Grendel, 1993: 139) thinks that this view is not given serious consideration in FL attrition studies because "it oversimplifies our understanding of human memory and lacks the predictive power". Even though this view is criticised, Alharthi (2012) views that the experiment as a whole has a benefit on L2 vocabulary retention. The frequency of repetition or exposures in learning may lead to retention over longer periods of time.

The experiment is open to doubt. So, for the materiel used, would the result be the same if the selected items for the experiment were natural words? Moreover, before registering retention, Ebbinghaus was supposed to have learnt the words heart after repetition, so why were they forgotten so fast? One, then, wonders about the human mental capacity to retain information which is known to create mental network between previous and new knowledge during the learning process. The present investigation tries to probe the validity of the curve with lexical attrition of the population under study.

1.8. Factors Affecting Vocabulary Attrition Tackled in the Present Study

Since vocabulary attrition is inevitably present during the learning process during any language learning, whether this learning is formal or informal, what are the factors that influence on lexical attrition of second year students at the University of Tlemcen?

From the previous researches on the subject, the investigated factors are notably: disuse, initial proficiency level and the type of vocabulary more likely to be forgotten, and attitude and motivation. Because of the paucity of studies on vocabulary attrition, the usefulness of the use of vocabulary learning strategies is explored just by Alharthi's (2012) study in which he investigated the strategies used

by his Saudi EFL graduates teachers. In addition to these variables, the present work aims to probe the effect of the teachers' vocabulary teaching methodology on lexical attrition. These variables are presented below in relation to the already conducted studies.

1.8.1. Initial Proficiency Level

What is referred to by proficiency level in vocabulary learning is a degree of advancement in lexical knowledge which is widely expected to be higher if the foreign language learner is more exposed to the language and/or practises it more, therefore , "better performance predicts better retention of foreign language lexical knowledge and minimizes patterns of attrition" (Alharthi, 2012: 30). This means that the relationship between proficiency level prior to the onset of attrition and the amount of loss is inverse (Hansen & Reetz-Kurashige, 1999). However, just a few studies have tested the effect of this factor on vocabulary attrition considering it either by the period of training or by different (vocabulary) measurements. So, to classify subjects according to their proficiency levels prior to attrition, Bahrick (1984) relied on the level of training, Weltens (1989) and Abbasian and Khajavi (2008) on the grades scored during graduation, Morshedian (2008) on Nelson test, and Alharthi (2012) on Vocabulary Levels Tests.

With the exception of Weltens's (1989) findings showing that the amount of lexis forgotten is independent from the proficiency level, the already cited studies showed evidence for the inverse relationship between the initial proficiency level and the amount of attritted lexis. Bahrick' (1984) results revealed higher retention with higher proficiency levels even after 50 years of disuse; likewise, Morshedian's (2008) findings revealed that the High group (of proficiency) lost nouns less than the Mid and Low groups, and the Mid group lost nouns less than the Low group. Neisser (1984, qtd in Hansen & Reetz-Kurashige, 1999) hypothesized the more proficient students retain greater deal of information because they had found out a schema, or structured system of relationships for L2 vocabulary which is a structured mental representation of complex information, viz, to recall an L2 word is not simply a reproduction of a previously memorized lexis, but rather, a problem-

solving response involving deeper processes of memory retrieval making, in this way, information resistant to forgetting.

Dealing with proficiency level, Bardovi-Harlig and Stringer (2010) referred to the peak attainment, whereas, Neisser (1984) supported the critical threshold idea. The former is thought of to be crucial in L2 attrition for any area of language skills to be tested. Whereas the latter is a point at which learner's linguistic knowledge represented mentally reach a certain stability that becomes, at least temporarily, resistant to loss. So more studies should be carried out on vocabulary attrition to establish this attained level of proficiency which can act as a shield protecting lexis from attrition.

To measure the initial proficiency level in the present investigation, Schmitt *et al*'s (2001) Vocabulary Levels Test (VLT) and Laufer and Nation (1995) Productive Vocabulary Levels Test (PVLT) are used. These standard well-known tests on the field of vocabulary learning allow a valid determination of the target learners' proficiency level prior to attrition.

1.8.2. Vocabulary Learning Strategies

The impact of the use of vocabulary learning strategies on attrition was tested up to now, to the researcher's knowledge, only by Alharthi (2012) (see 1.9.7.). He reported that subjects used much more guessing strategy to discover the meanings of new words and this was not claimed to be predictive of attrition. As for memory strategies, they used repetition and note-taking strategies. It seemed that note-taking was more beneficial than other strategies. Moreover, his learners used repetition strategies, mainly, repeating by writing or saying words with L1 (Arabic) translation which is reported to reduce vocabulary retention. He states that note-taking and repetition based on L1 Arabic translation do not reinforce word maintenance; consequently they gear towards lexical attrition; whereas those based on L2 help retention and reduce attrition.

The present investigation tries to find out the extent of use of these strategies by the students and whether they are effective to lessen attrition. The following part

aims at taking a closer look at the strategies used by the target population in the present study. Schmitt's taxonomy is the one referred to. In classifying his strategies, he makes a distinction between strategies the learners use to discover the meaning of new words 'discovery strategies', and strategies to consolidate a word once it has been encountered 'consolidation strategies' (for more details about these strategies see Hakem, 2009). The selected strategies for the study relate to memory, cognitive and social strategies. The word-guessing strategies are summarised as follows:

1.8.2.1 Word-Guessing Strategies

Guessing strategy is widely used by students to find out the meaning of unknown words and is widely promoted in foreign language learning (Schmitt, 1997). Learners can infer the meaning of the new word from the neighbouring words in a written text provided that they know these surrounding words. In oral discourse, the task may be helped by the presence of some gestures and intonation (Schmitt, 1997). It is also possible to guess the meaning of a word by analysing its part of speech or its root and affixes or by thinking of a mother tongue cognate. However, the use of this strategy requires a certain level of proficiency that offers a rich range of clues that enables a successful decoding of the new lexis. The adequate background knowledge of the subject dealt with enables also an accurate guessing (Schmitt, 1997). Knowledge of the theme allows making a link to the unknown words.

Yet, learners, when analysing word parts, should be aware of the words with a deceptive morphological structure (Laufer, 1997). The sum of the meanings of '*shortcoming*', short visit and '*outline*' out of line, for instance, does not lead to the exact meanings of the words. Likewise, they should be careful of false-cognates (see 1.8.2.2.)

It is obvious from what has been cited that a learner should have "three kinds of knowledge: linguistic, world, and strategic knowledge." (Nagy ,1997 :76). The adequate linguistic proficiency level entails the rich linguistic knowledge that allows a successful guessing. Knowledge of the world, viz., the subject/theme paves

the way for an efficient guessing. Moreover, the know-how to use the strategy leads to an accurate guessing.

1.8.2.2. Use of cognates

Cognates are words generally from the same origin, i.e., which have descended from a common parent language (Schmitt, 1997). They have a great similarity in form and even meaning such as *'transparent', 'general'* and *'transparant', 'générale'* in English and French respectively; this is the case of loan words which generally retain the same original meaning of the word. Cognates help par excellence the enhancement of vocabulary learning. However, learners should also be careful when referring to cognates because false-cognates (or false-friends) can lead to a miss-interpretation of the word. '*Pass an exam*' means to succeed an exam whereas '*passer un examen'* in French means to sit for the exam. The L2 of students under study is French which is supposed to offer a rich resource for vocabulary learning.

1.8.2.3. Dictionary -Use Strategy

Learners use dictionaries to find out the meaning of the unknown words they encounter. Research on the use of vocabulary learning strategies in general proved the popularity of dictionary-use strategy, with more inclination to the use of bilingual dictionaries (Catalan, 2003; Schmitt, 1997). Gu and Johnson's (1996) study revealed that the dictionary-use strategy was widely used by the students. Moreover, they found out that the skilful use of the strategy correlates positively with vocabulary size, and language proficiency. Using dictionaries allows the learners to continue learning outside the classroom setting (Gairns & Redman, 1986), thus they are geared towards a considerable autonomy in their learning.

The use of dictionaries not only allows the learners to find out the meaning of new words but also to produce words in need. Nation (2001) mentions three major purposes for the use of a dictionary:

1. Comprehension (encoding), for example looking up a new word encountered when reading, listening or translating.

2. Production (decoding), for example finding out a new word needed for speaking, writing or translating.

3. Learning, for example choosing new words to study.

Whether the dictionary should be monolingual or bilingual is a room for debates. Bilingual dictionaries seem to pertain well for beginner learners because the language included in the monolingual would be higher than their level however careful the lexicographers would be (Harmer, 2001). Thus, if an assumption can be made, it can be said that monolingual dictionaries are more appropriate for intermediate and advanced level learners. And it can't be denied that even at this level of proficiency the bilingual dictionary is useful to find out a word in the target language or to reinforce a meaning of a word looked up in the monolingual dictionary.

1.8.2.4. Social Strategies

Another way to discover the meaning of unknown words is through social strategies. These are the ones that the learners employ to interact with other people who know for the purpose of discovering or practising new words. In this case they ask their teacher, who is in the first position to provide knowledge to them (Schmitt, 1997), they can also ask their classmates for meanings. However, the teacher seems to be the best provider of explanation since he can give definitions, paraphrase, give the word in a sentence or give the L1 equivalent without erroneous answers. The learners can ask their classmates to get informed about the meaning of a word, its synonym or antonym or to check comprehension. Learners can also use social strategies to practise or recycle the studied lexis. This can be done through pair work or group work activities.

1.8.2.5. The keyword Method

The keyword method is one of the memory strategies, which consists of "associating the target word with a word which is pronounced or spelt similarly in the mother tongue, but is not necessarily related in terms of meaning." (Gairns & Redman, 1986: 92). To use this strategy the learner memorises the word passing by

two stages : (1) the learner needs to find an appropriate keyword in L1 which sounds like the word in question and then (2) forms a mental image linking the two words; the similarity in sounds evokes the created image and then the word is retrieved (Schmitt, 1997). For instance, when memorising the word 'refrain' which means not to do something , the Algerian learner may link it to the French (L2) word 'frein' and form a mental image of stopping doing something , or he may relate the word 'white' in English with the Arabic word 'ورقة' '/ w←r←k←/' which means a piece of paper, imagined to be white and create a mental image of colour . A number of studies have proved the efficiency of the method at different ages and proficiency levels, mostly for the immediate recall of the word. Some researchers argue that it works well with abstract words while others claim that it proves to be efficient with only concrete words. Ellis and Beaton (1993; qtd in McDonough, 1999) find out that the key-word method works well for translating words into the mother tongue, while rote-repetition gives better results for translating into the foreign language. The best results in this experience are achieved with the combination of the two strategies.

1.8.2.6. Repetition Strategies

Schmitt (1997) and Ahmed (1989) view verbal and written repetition as mechanical strategies as they do not "focus specifically on manipulative mental processing" (Schmitt, 1997: 215). Considered as rehearsal strategies, they include oral or written repetition using word-lists, thus, rote learning which is accomplished through "repetition of the target language items either silently or aloud and may involve writing down the items (perhaps more than once)" (Gairns & Redman, 1986: 93). Repeating may be considered as a 'shallow' strategy since no mental effort is exerted in learning contrary to 'deep' strategies which require an elaborative mental processing (Schmitt, 1997). However, it may be a useful tool for beginner learners as it offers to the learners the opportunity to manipulate the oral and written forms of vocabulary.

1.8.2.7. Note-Taking Strategies

Note-taking is part of the cognitive strategies; it is a traditional way of recording new-learned vocabulary suitable for use by learners of different age groups and levels. Ahmed's (1989) investigation revealed the use of the strategy by 'poor' and 'good' L2 learners. The strategy is commonly applied by means of vocabulary notebooks and word cards (flash cards). There are various ways of taking notes down about words in a vocabulary note-book. Nation (2001) views that storing vocabulary in long lists of foreign language words with their mother tongue equivalents is not recommended because learning lists of words in a fixed order discourages the independent recall of every word, i.e. learners can fail to retrieve the desired words if their order changes. In addition, vocabulary learning requires as well learning collocation and derivation (Lewis, 1997). For instance, learners should know that the adjective 'broad' collocates with the noun 'shoulders' in the phrase 'broad shoulders' but 'large' does not, similarly 'make' collocates with 'apology' in 'to make an apology' but 'do' does not. As for derivation, the learners have to know that 'blacken' is the verb derived from the adjective 'black' and the noun 'derivation' is derived from the verb 'derive', i.e. an affix is fixed to the stem to produce another part of speech of this word. Schmitt and Schmitt (1995) suggested a procedure when listing vocabulary in a 'pedagogically-sound note-book'. Learners write down word pairs (L2-L1 words) and learn them then enrich them by semantic maps as sentences, illustrations and derivations. Learners can organise their notebooks in alphabetical order or by theme they belong to. Gairns and Redman (1986) offer guidance and practical advice on how to list vocabulary items.

Word cards can also be used in note-taking. There may have the foreign language word on one side and the mother tongue equivalent (and/or a definition) on the other side. Nation (2001) claims that the strategy has advantages and shortcomings, however, it is considered as a complement to other ways of learning vocabulary.

1.8.2.8. Grouping

Grouping words together and studying them help learners remember them better. They can select words belonging to the same theme and learn them. It seems that the human memory organises words related in meaning into groups and thus retrieval is made easier. Target words can be "grouped spatially on a page in some sort of pattern" (Schmitt, 1997). It is reported that words placed into the form of a rectangle on a page were better remembered, even after a week, than words organised in columns (Belleza, 1983; qtd in Schmitt, 1997). It is also uncovered that words organised diagonally on a page were better recalled than those listed in a column (Decker & Wheatley, 1982, qtd in Schmitt, 1987). From the conducted studies, it can be stated that grouping words together helps better and longer retention of words.

1.8.3. Receptive/ Productive Vocabulary Knowledge

The terms receptive and productive vocabulary stand for the two types of vocabulary knowledge of foreign language learners. Receptive vocabulary knowledge is the type of knowledge that allows understanding the word when heard or read, it is then the recognition of a word which does not necessarily mean the ability to produce it correctly. Whereas, productive word knowledge is the kind of knowledge which allows the use of the word in speaking and writing, it is then the ability to produce the word accurately. Hence, it is clear that a foreign language speaker has better mastery of productive words than receptive ones. Yet, which kind is more prone to attrition, and to which extent it is forgotten are the concern of many studies including the present one which aims to explore the type of word knowledge likely to be forgotten.

To begin, with regard to the decay of knowledge, Waring (1997) uncovered that productive knowledge decays faster than receptive knowledge. Besides, in foreign language attrition literature, research demonstrate repeatedly attrition of productive vocabulary over receptive. When investigating lexical attrition in Spanish skills, Bahrick (1984) found out a significant loss in vocabulary knowledge both in recognition (receptive) and recall (production) of words, but attrition was

registered on recall of vocabulary more than on recognition, i.e. productive lexis was more vulnerable to attrition than receptive. Likewise, Marefat and Roushad (2008) and Morshedian (2008) reported that attrition was observed on productive word knowledge more than it is on receptive. Even though Cohen (1989) did not compare the loss of receptive and productive lexis, his study with his two English-Hebrew children revealed a considerable decline in the production of Portuguese words.

At this level, it seems necessary to comprehend what is meant by word knowledge (see 1.6), viz. what are the components of word knowledge, and to show the difference between them. To recognize a word (reception) doesn't necessarily mean to be able to retrieve it and use it correctly (production). It is obvious, then, that productive use of language calls for mastery of connotations, denotations, register, syntactic constraints (Crow, 1986), in addition to its written and spoken form as well as its meaning (Nation, 2010). This is what should be known about a word but vocabulary learning remains more predominantly receptive (Zhong, 2011). In fact, Waring (1997) found evidence for this assumption from his study, he assumed that if a high frequency word was known receptively, it is likely to be known productively; however, if a low frequency word was known receptively, it has little chance to be known productively. Henriksen (1999, qtd. in Pignot-Shahov, 2012) classified the components of word knowledge into three categories: partial to precise knowledge, shallow to deep knowledge, and receptive to productive knowledge. His classification is thought to be an attempt to develop an elaborate lexical knowledge structure.

What causes disagreements between scholars about the notion of receptive and productive knowledge is whether this distinction constitutes a dichotomy or it constitutes a continuum (Laufer & Golstein, 2004). Meara (1997) views that the two types are different in terms of associational knowledge. Thus, they can't be considered as a continuum. He explains that productively known words are organised in such a way that make them connected to a productive item. While receptively known words are not connected to any words in the lexicon. In contrast,

according to Melka Teichroew (1982), as the word is practised and learnt more, it moves gradually from receptive knowledge to productive mastery. Likewise, Waring (1997) thinks that the development of most vocabularies is from the receptive to the productive knowledge. But the threshold at which receptive knowledge becomes productive is not clear (Schmitt, 2010). Ringbom (1983:168 qtd in Alharthi, 2012) corroborates stating that: "Items pass from the learner's receptive vocabulary store to his smaller productive one all the time, some items perhaps moving back again from the productive to the receptive one, when the learner forgets items he has once mastered but has not met very frequently or recently."

It is clear that receptive vocabulary has a chance to become productive; however, it is also possible that some lexis undergo forgetting by moving from the state of being mastered, i.e., productive knowledge, to the state of being attritted to a certain extent, at least to become receptively known. Learners can find it difficult to retrieve words already known as a result of disuse or less use. With regard to the decline in knowledge, Waring (1997) states that productive knowledge decays faster than receptive. Indeed, this is evidenced by the fact that the results of all studies show that the productive retention is lower than the receptive retention.

The assumption in learning to produce lexical knowledge is difficult. This difficulty in learning might be explained by the effort and length of time devoted to learn items for possible production. The action requires extra learning from the initial input calling for more practice and memorisation to predict productive knowledge. On this premise, Waring (1997) found out that his Japanese female informants spent more time learning words productively and that the rate of attrition was greater for productive knowledge than it was for receptive. Meanwhile, a substantial amount of receptive word knowledge was maintained over a long time. Thus, the amount of time spent to learn the 15 words productively explains the difficulty of learning productively and the possibility of forgetting them.

What could be drawn from what has already been cited is that receptive vocabulary knowledge is larger than the productive. And as decay in word

knowledge happens, attrition affects productive lexis more than receptive. This is due to the fact that receptive words precede productive and when productive words are no longer mastered, they move to the receptive knowledge which, as a result, becomes larger. Learning words productively demands more efforts and time and it could be assumed that the production information could not be as fully learnt as the receptive (Alharthi, 2012) and consequently, a considerable amount of the productively learnt knowledge would be easily forgotten compared to the receptive. And since more information is required to answer productively, studies repeatedly report the likely loss of productive knowledge over the receptive.

1.8.4. Vocabulary Teaching

To the researchers' knowledge, the role of vocabulary teaching/instruction on vocabulary attrition is still unexplored. The present investigation considers the way of teaching vocabulary as a variable that may have an effect on lexical attrition. The techniques and the procedures teachers use to teach vocabulary differ from one classroom setting to another. The two approaches to teach vocabulary contrasts from the explicit to the incidental teaching. And within the explicit teaching, teachers can use verbal or visual techniques or even translation to teach words.

1.8.4.1. Explicit vs Incidental Learning Approach

An explicit instruction focuses on activities in which the words desired to be taught are selected whether because of a specific need (an exam, for example) or because of the importance of the items for a theme to be studied. A number of principles are to be taken into consideration when using this approach. Sökmen (1997, qtd in Schmitt, 2000: 146-7) highlights some of them:

- build a large sight vocabulary
- integrate new words with old
- provide a number of encounters with a word
- promote a deep level of processing
- facilitate imaging
- make new words "real" by connecting them to the student's world in some way

- use a variety of techniques

- encourage independent learning strategies

In addition to these principles, Schmitt (2000) mentions others worth to be aware of. When integrating new words with old, language teachers usually tend to group similar words together, thus, introduce the word form and meaning. However, learners could confuse which word goes with which meaning. This is known as cross-association. Synonyms and antonyms are likely to undergo cross-association and also words from closely related semantic groupings (for instance, days of the week, clothes, and gradable adverbs)

Another principle arises from the polysemic words. So it is important to teach the underlying meaning concepts of a word with more than a meaning. Schmitt (2000) cited the example of fork. It can mean a *fork* to eat with, a *fork* in a road or a river, a *tuning-fork* for use with music, a *pitchfork* which farmers use to throw hay. The meaning of fork in relation to eating and gardening makes 86% of occurrences in English whereas the other meanings in relation to anything so shaped make up 12 %. This would suggest that the basic meaning of a word should be focused on so that the learners develop a wide range of its context. Thus, they can understand and relate the other word meanings to the underlying meaning.

A language teacher can help learners enrich their vocabulary store by teaching word families instead of introducing the word individually. By practising word derivations, learners become familiarised with the idea of looking for the members of the word family (verb, noun, adjective, participles) and learning them together.

These are some of the principles to be followed if teaching is made explicitly. In contrast, vocabulary can be taught and learnt incidentally and this can be achieved by maximum exposure to the language. The most effective way to ensure this is to be in a country where the L2 is spoken; yet, in reality almost all foreign language learners (including EFL learners) live in a monolingual environment (Rivers, 1981) and the ability to be in the L2 country is not available to

all learners around the world. Therefore, the best way to increase exposure to the language is through reading. Teachers can direct their students to read more even though not all of them are ready to do so. When reading, learners find themselves reviewing words they have already encountered, (hence recycling) and looking for the meaning of new words required for the understanding of the material which is read (hence discovering). Simultaneously, they develop their vocabulary learning strategies.

From what has already been cited, it can be said that teachers should better tend to teach vocabulary explicitly and promote it by directing the learners towards incidental learning mainly through reading or even through watching films, listening to songs in English. For an explicit teaching a number of techniques can be used, they are described below.

1.8.4.2. Techniques to Teach Vocabulary

Teachers use different Techniques which are intended to suit the different teaching/learning situations, the words (whether concrete or abstract), the learners' background and the learners' learning styles. Gairns and Redman (1986:73) view that there are 'traditional approaches and techniques' that should be mastered by all EFL teachers that without them the transmission of meaning would be handicapped. These techniques are classified under three headings: visual techniques, verbal techniques and translation and each consists of a number of techniques.

i. *Visual Techniques*

Visual techniques pertain to all what is used by the teachers and can be seen by the learners, they comprise drawings, photographs, pictures, flashcards, wall charts and realia. These techniques "lend themselves well to presenting concrete items of vocabulary-nouns; many are also helpful in conveying meanings of verbs and adjectives." (Uberman, 1998: 20). They can be used to present words such as places, professions, actions, activities and states. Learners can then link the presented visuals with the corresponding vocabulary and incorporate it to their mental lexicon. Mimes and gestures are also considered as the visual techniques, they are other ways to convey meanings, and they, as well, lend themselves to the

presentation of concrete words and particularly to action verbs and can be funny and memorable. Such techniques help vocabulary retention for visual learners.

ii.   *Verbal Techniques*

Verbal techniques pertain to any verbal explanation introduced by the teacher in the classroom to transmit the meaning of new vocabularies or even to revise the already learnt ones. The teacher can use definitions, illustrations, synonyms, opposites, contrasts or scales. It is argued that:

> effective vocabulary explanation requires that the teacher be able to gauge accurately students' competence level, …as well as the existing knowledge of the students, in order to relate new and old information, to highlight the essential features of the items to be explained and to actively involve students in processing the meaning of words.

> (Tsui,1995: 37)

Teachers who know their learners' proficiency level present material that is neither overwhelming nor boring and to know the existing knowledge allows the introduction of new language accordingly.

Teachers then use definitions aiming at clarifying the meanings of items, and it is important to check whether the learners understand, to do so, teachers generally provide contextualised examples where more clarification about the use and meaning of words are presented; for instance, the teacher can explain that *break out* means *to start*, but it is vital to clarify that *the war breaks out* is correct but **the race breaks out* is not correct English.

Teachers can use synonyms, contrasts and opposites to convey the meanings of lexical items. They rely on the learners' background to give the synonyms or opposites so as to get the meanings across effectively, and consequently make the matter shorter and less complex. But, it is still necessary to contextualise the items. Gairns and Redman illustrate using the opposites *sweet* and *sour*; however, it is vital

to explain that: "sugar is sweet and lemons are sour, but the opposites of sweet wine isn't sour wine, and the opposite of sweet tea isn't sour tea." (1986:74-5).

Scales can be used to classify a set of lexical items, particularly to the related gradable items. This can be built on an already existing knowledge. If learners know two adverbs of frequency beforehand, then the following can be cited on an axe from the less to the most frequent.

never	hardly ever	occasionally	sometimes	often	always
0 %	20 %	40 %	60 %	80 %	100 %
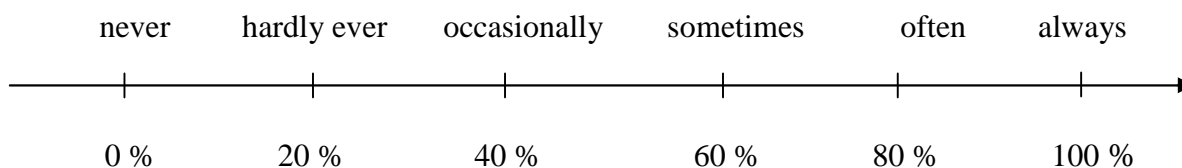
If the learners have already acquainted with *never* and *sometimes*, then the teacher can introduce *hardly ever* using the scale as it is presented or the percentage.

iii.   Translation

Translation can be used to present new vocabulary by providing the equivalent of the word in the mother tongue or L2. Opinions about the use of translation differ. Some scholars completely disagree with the use of L1 in a foreign language classroom arguing that the learners will lose some of the spirit of learning a foreign language (Harmer, 2001) and that they will be lazy to make efforts to use the language. However, others state that translation saves time and efforts and prevent the learners from being worried and frustrated when presented to long and unsuccessful explanations (Gairns & Redman, 1986); the technique is viewed to serve largely the presentation of low frequency items. It is worth noting that translation is an effective technique to the presentation of new words and it is not time consuming nor effort demanding, but it should not be over-used by the teachers in order not to lose the atmosphere of a foreign language classroom. Moreover, the mother tongue equivalent should be attentively presented because it can't transmit the exact meanings of English words all the time, in addition, they should be careful not to be in the trap of false cognates. Another danger that may be cited is that the learners relying most on translation do not develop sense relations

that hold between synonymy, antonymy, hyponymy and others. Ur (1998: 63) summarises the cited techniques as follows:

Ways of presenting the meaning of new items

- Concrete definition (as in a dictionary; often a superordinate with qualifications: for example, a cat is an animal which…)
- Detailed description (of appearance, qualities…)
- Examples (hyponyms)
- Illustration (picture, object)
- Demonstration (acting, mime)
- Context (story or sentence in which the item occurs)
- Synonyms/opposites (antonyms)
- Translation
- Associated ideas

These are the techniques that the EFL teacher may use to present, revise or consolidate the meaning of words so as to satisfy the different learners' background and learning styles. These techniques are used in the present investigation which tries to find out whether the method used for instruction has an impact on vocabulary attrition or not. More precisely, two ways of presenting words, in context and out of context, are used with the target students.

1.8.5. Disuse

It is possible for an L2 not to be used for a certain time which may influence on the speaker's lexical knowledge. Studies investigating vocabulary attrition found evidence for the effect of non-use. Abbasian and Khajavi (2011) found out that the mean scores of his literature teachers decrease as the years of English disuse increase. Moreover, they translated better from English to L1 (Persian) than from L1 to English. This means that the remaining lexical knowledge is more receptive than productive. When Morshedian (2008) probed vocabulary attrition of his L2 students over summer vacation, his results evinced that they lost an amount of the

studied lexis but he related his findings to the student's proficiency level. Bahrick's (1984) landmark study showed that the decline is noticeable within the first three years after the end of training. And after the interval of 3-6 years, lexical knowledge, 'permastore-content' to use his coined term, remained stable for a period of time up to 25 years (see 1.9.1). Another important result is that the subjects lost a fixed amount of knowledge over a given period of time, irrespective of their total knowledge.

The present study checks whether students disuse over summer vacation could influence on their lexical knowledge. To this end they were tested at the end of their second year (Time 1, May 2013) and just at the beginning of their third year of graduation (Time 2, October 2013).

1.8.6. Attitude and Motivation

Attitude and motivation are considered as crucial psychological variables that play a role in L2 learners' achievement and proficiency. Learners having a positive attitude and highly motivated, whether integratively or instrumentally, make the necessary effort to learn the language and attain a level of proficiency that allows retention of language. Gardner (1982, qtd in Murtagh, 2003:34) argues that if attitudinal/motivational variables are related to L2, then, it seems "reasonable to predict that these same variables would be related to retention". Thus, whether or not these variables influence on the regression of L2 vocabulary is a vital question that deserves to be tested.

Hansen and Reetz-Kurashige (1999) reported a study conducted by Gardner, Lalonde and MacPherson (1985) who investigated the effect of attitude, motivation and use in attrition. The subjects were Canadian students who attended intensive French courses (6 weeks) in Quebec. It has been found out that those with favourable attitudes and motivation showed little amount of attrition while those with less favourable attitudes and motivation reported greater attrition. The researchers suggested the indirect influence of attitude and motivation on language attrition since they primarily influence on the acquisition period by influencing on the level of competence acquired.

Two years later, a subsequent investigation (Gardner, Lalonde, Moorcraft and Evers, 1987) probed the role of motivation and use in L2 attrition in high school students of French predicting change in L2 achievement over the period of summer vacation. To measure their achievement, a 'can-do' statements and a word production test into the form of written essay and listening comprehension test were used. The results revealed little attrition over the period studied; there was even a growth in vocabulary use but a significant change in grammar. In fact, the variables are interrelated. Murtagh (2003) explained that the role of initial proficiency is confirmed by the small amount of attrition. She added that language attitudes seemed to 'cause' motivation which itself, in turn, was a causal factor in determining achievement in French.

Therefore, attitude cause motivation which is proved to be crucial not only for retention, but for the level of proficiency attained during acquisition; the thing that renders attrition less significant. It, then, immunizes language. The variables are going to be tested in the present study to find out the role they play on vocabulary attrition in the actual case study.

1.9. Key Studies in Vocabulary Attrition

A number of studies of attrition are selected in this part aiming to (1) depict different framework studies in the field and (2) learn about variables investigated and their effect on language attrition with a focus on vocabulary attrition. Some of these researches deal with language attrition in general but vocabulary attrition is highlighted apart from the other aspects. And most of these studies tackle vocabulary attrition in relation to the variables that will be examined in the present investigation, notably: disuse (at varying periods), initial proficiency level, and vocabulary learning strategies (viz. discovery and memory strategies). It should be noted that all these investigations were conducted in a second/foreign language environment but mostly in an EFL setting.

1.9.1. Bahrick's (1984) Study: Attrition in Spanish Skills

One of the major studies on second language attrition is Bahrick's (1984) which was led to assess attrition in Spanish skills. The focus of the investigation was to find out the language components which suffer attrition after formal instruction. The subjects were 773 American individuals. Among these 146 students were enrolled in high school or college Spanish courses at the time of testing or had recently completed such courses. The other 587 subjects had taken one or more Spanish courses during high school or college and their instruction had occurred from 1 to 50 years prior to being tested. They were further divided into 8 groups according to the time elapsed since their last Spanish course. The remaining 40 individuals had no prior instruction in Spanish. The purpose behind including them as a control group is to establish a baseline for performance which differentiates knowledge acquired in Spanish classes from knowledge acquired incidentally.

He then introduced four types of tests to assess reading comprehension, vocabulary and idioms and grammar; to wit, they consist of the following ten subtests: (1) reading comprehension, (2) Spanish-English recall vocabulary, (3) Spanish-English recognition vocabulary, (4) English-Spanish recall vocabulary, (5) English-Spanish recognition vocabulary, (6) grammar recall, (7) grammar recognition, (8) idiom recall, (9) idiom recognition, (10) word order.

As for vocabulary, Bahrick's objective behind the study was to uncover the rate of attrition for receptive and productive vocabulary knowledge. Besides, he aimed to check whether the initial attained competence had an impact on the onset of lexical attrition. The subjects' attained competence was determined by means of levels of training and mean scores achieved in a number of language courses.

The tests in relation with vocabulary aimed to assess receptive and productive vocabulary knowledge through (a) supply tests where equivalent meanings/ definitions were required (L2-L1 / L1-L2) and (b) select tests in multiple choice lists and comprehension activities in reading material which had already been studied by the subjects during instruction. A questionnaire was used to elicit other background information as regards Spanish instruction, grades achieved at

school and use of target language in reading, writing, speaking and listening after instruction had ceased (retention period). The administration of the tests and the questionnaire was calculated to last a whole hour; however, there were no restrictions on time to achieve the tasks of the tests and to complete the questionnaire.

The results revealed that part of the knowledge acquired in Spanish classes is lost with the first few years after training which he ranged between 3 and 6 years and that the remainder of knowledge "was immune to further losses for at least a quarter of a century" (Bahrick, 1984: 111). He thought as well that much of the content survives for 50 years or longer. To this concept, he coined the term "permastore-content" to denote knowledge which remains accessible and recognizable for a lifespan of over 25 years. It has been noticed that the number of Spanish courses taken correlates with the content which is likely to be retained in memory. He also found out that the 'total amount of content' to be forgotten during the first five years following training was stable for individuals regardless of their level of training.

The results of the investigation showed also that recognition of grammar revealed better results than recall of grammar which declined more precipitously and that reading comprehension was maintained at a level determined by vocabulary and grammar recognition.

The findings in relation to vocabulary that emerged from this study are what interest actually, being the concern of the present work. Bahrick (1984) reported that within the first three years after training, a noticeable drop at the level of vocabulary was shown. It may be noticed as well that attrition affects recognition/receptive vocabulary less than recall/productive vocabulary, i.e., recognition of vocabulary is a more stable knowledge. Bahrick explains that stability of recognition vocabulary (over recall vocabulary) is due to the fact that this latter is likely to have been increased by unconscious acquisition through reading and comprehension classroom input.

As for the impact of initial proficiency on attrition, the results uncovered that the total amount of content forgotten during the five first years was constant for subjects at the different levels of training; however, those who had higher levels experienced less attrition, i.e. they retained better than the others. In other words, higher initial proficiency is associated with better retention of language.

The results also showed that rehearsal which refers to the use of L2 in terms of attrition period such as watching TV programs in Spanish, reading and conversing in Spanish) seemed to have little influence on retention even though the participants retained a considerable amount of knowledge in permastore. However, Bahrick (1984:109) gave notice that "it would not be appropriate to conclude from these data that practice does not help retention of knowledge".

1.9.2. Cohen's (1989) Study: Productive Lexicon in Portuguese

Cohen's empirical study investigated the loss of productive lexicon in Portuguese as a foreign language of his two English-Hebrew children, Daniel and Judy aged 9 and 13. He studied vocabulary in oral language after 1, 3, and 9 months of discontinued contact with the language using a storytelling task as a means of measuring productive Portuguese vocabulary attrition. Additionally, he analysed the lexical production strategies that his subjects used to compensate for the forgotten words, and lexical retrieval processes used during the storytelling in the three languages. But, what would be reported in the present work (the researcher's concern) is Cohen's results for the attrited vocabulary.

The subjects were fluent speakers of English and Hebrew as they lived in the USA and Israel. Hebrew was the language spoken out of their home and the language of instruction at school in Israel. Simultaneously, they spoke English at home and attended lessons of English literacy several times a week. These children lived a whole year in Brazil (Sao Paolo) and their instruction was in Hebrew as they attended a small Israeli private school. They were in direct contact with Portuguese speakers and by the end of the year, they became fluent speakers but with some grammatical errors in speech.

Cohen used a storytelling to elicit data. He made his subjects tell the stories from a series of 24 detailed pictures without any written text in Portuguese, English, and Hebrew on three periods: 1 month, 3 months, and 9 months after their return from Brazil. The purpose behind telling the stories in English and Hebrew was to provide basis of comparison to Portuguese. In the eleventh month, they performed an oral recognition task so as to assess the receptive control of vocabulary conspicuously absent in the ninth month stories.

He found out that there was a considerable decrease in the productive words in the 9th month in the stories of the two subjects compared to the stories of the previous months (see table 1.2.), and to the stories in English and Hebrew compared to the total number of words used.

	Time in months					
	Daniel			Judy		
	1	3	9	1	3	9
Tokens 1	498.	376.	162	338.	317.	231
Types 2	98.	83.	46	78.	72.	57

Tokens refer to the total number of words -including repetition of the same words- per story.

Types refer to the total number of different words per story.

Table 1.2.: Comparison of storytelling data (Cohen 1989:140)

His findings suggested as well that some decay or unlearning of the words is due to "interference from other words" (Cohen, 1989: 142). It has also been observed that lesser language loss was experienced by the older sibling who became more literate in Portuguese than the younger even though they attended the same two-hours Portuguese lessons twice a week.

1.9.3. Weltens's (1989) Study: French Receptive Skills

Weltens's (1989) study focussed on attrition of French receptive skills among Dutch secondary school graduates after 2 and 4 years of non-use. A number of receptive tests were used including a test of general proficiency, listening and reading, and phonological, lexical and morphological subtests but the focus was on the last three tests.

The investigation was carried out with 2 training levels representing 4 and 6 years or 400 and 600 hours of French training, respectively. Baseline data were elicited from two groups of subjects who had just completed their study of French (after 4 years and 6 years). A questionnaire was introduced to collect self-report data on attitude to French and proficiency. For example, the subjects were asked to rate their competence in vocabulary using a five-point scale: (1) not at all, (2) with extreme difficulty, (3) with a lot of difficulty, (4) with some difficulty, (5) with little or no difficulty. One of the investigated aspects was the relation between the attained proficiency (referred to as years of training) and the degree of attrition within different skills. This is in line with Bahrick's (1984) study indicating that the initial proficiency correlates with the level of training and mean grades received in Spanish courses. As for the lexical subtest, Weltens used a traditional vocabulary test including 40 items which require word meanings. Four categories classified the target words, notably, high-frequency cognates, low-frequency cognates, high-frequency non-cognates, and low-frequency non-cognates. In the recognition test of vocabulary knowledge, the subjects were introduced to a supply definition task where a French sentence was provided to which they write the missing definition in Dutch.

The findings showed, surprisingly, little amount of attrition and that there were even gains on some tests. Weltens (1989:92) stated that the rate of attrition within different linguistic levels "sets in rather quickly and then levels off". More precisely, general receptive proficiency remained unchanged over the intervals investigated but it was quite different for the 2 training levels. The listening, reading, and phonological tests reported an increase in proficiency over time,

especially, for the 4 years training subjects; whereas, morpho-syntactic skills revealed the most attrition.

Regarding scores of lexical tests, they showed a large decrease on written items and cognates resisted attrition more than non-cognates. The comparison between the scores of lexical tests and the results of the self-report data revealed that vocabulary loss falls heavily over time. The findings also showed that there was no correlation between the level of training and attrition of lexical items. Hence, Weltens (1989:92) concluded stating that "the absence of interactions between training level and non-use in the cases where attrition was found indicates that attrition is –in absolute term- independent of training level."

1.9.4. Russell's Study (1999): Japanese Lexical Maintenance and Attrition

Russell's (1999) investigation addressed lexical maintenance and attrition among English native speakers learning Japanese as a second language (JSL) in a host culture setting. More precisely, the researcher aimed to explore the nature of attrition in productive lexical ability which can be reflected in total word counts, lexical variability, lexical density, lexical accuracy, lexical frequency orders, and relative frequencies of filler words, loan words, and English words in the JSL data. The other objective was to uncover whether or not extended formal instruction in the language correlates (significantly) with the previously cited variables related to the productive lexical competence. Two groups participated, each comprising 10 university students in their early twenties who had spent approximately 2 years as missionaries in Japan and had undergone an identical period of informal acquisition of Japanese prior to the beginning of the study. They had recently returned from Japan and varied as to the years of their return and to the amount of formal instruction in Japanese they had received following their return. Five other Japanese native students participated in the study for normative purposes.

A mixed cross-sectional and longitudinal design was used. Data were elicited in an oral mode with free monologue tasks at 3 different points in time over a period of approximately 2 years. The same elicitation task was given each time.

The findings of the study showed significant differences over time for productive vocabulary expressing considerable amount of attrition manifested in (1) a decrease in vocabulary size, (2) a decrease in the number of T-units and of lexical error-free T-units, and (3) an increase in the ratio of English tokens to total tokens. However, attrition was not found in the other variables, notably, in lexical variability, lexical density, lexical errors per T-unit, the relative frequency of filler words and loan words.

As for the productive vocabulary size reflected in the total number of types and tokens, there was in fact a decrease in the total number of produced vocabulary for both groups over the 3 times. The findings were in line with Cohen's (1989) results in productive vocabulary.

With regard to the increase in the use of English code-switched words, Russell (1999: 126) explained it by "the existence of some degree of lexical attrition in the form of a declining ability to retrieve the corresponding L2 forms under time constraints". The matter could be an indication of actual lexical loss or simply "a reflection of difficulty of timely retrieval or access" (idem). In this vein, de Bot and Weltens (1995; qtd in Russell, 1999) view that lexical items are not necessarily lost but become inaccessible requiring more time for retrieval, frequently, resulting in the decreased use of words.

1.9.5. Morshedian's (2008) Study: Initial Proficeincy Level and Lexical Attrition/Retention of Iranian EFL Learners

Morshedian (2008) aimed to study the role of initial EFL proficiency level in the amount of attrition/retention of English acquired nouns, with a particular focus on receptive and productive knowledge of acquired nouns. Sixty freshmen (first year students) majoring in English translation or English literature took part in the investigation. The students enjoyed approximately the same language background and had not taken English summer courses.

In Time 1 (just before summer vacation), the researcher administered Nelson English language test (Fowler and Norman, 1976, Book3: Advanced, test 350) to

measure the students' initial proficiency level. To check the participants' nouns attrition/retention, a teacher-made receptive/productive vocabulary test modelled on the Vocabulary Levels Test (Laufer & Nation, 1995) was administered to the students covering the nouns acquired in their textbook Reading Through Interactions 2 (Hartman & Kim, 2001). In addition, a language background survey including some questions about students' language background and their possible exposure to the language was administered.

In Time 2, after the summer vacation, the same productive/receptive vocabulary test was administered to the students. Results showed that the proficiency level (classified as Low, Mid, High proficiency groups) of the target Iranian EFL students had a significant effect on their performance on the vocabulary test whether it is productive or receptive. The table below summarises the results.

Proficiency	High	Mid	Low
Mean	56.29	48.69	42.55

Table 1.3. : Means of the total vocabulary test for the 3 proficiency groups

To be more precise, the high proficient group lost nouns after summer vacation less than the Mid and Low proficient groups. It has also been found out that the participants lost more productive word knowledge (mean = 48.45) than receptive (mean = 51.90) after the summer vacation. When the researcher correlated variables: the initial proficiency level, the time (before and after the summer vacation) and the type of word knowledge (receptive vs productive nouns), he found out that there was no significant difference between the amount of attrition/retention of receptive vs productive word knowledge of learned nouns over summer vacation as affected by the initial proficiency level (High, Mid, Low) before it. In other words, "the participants did not differ significantly in terms of attrition of the productive vs receptive word knowledge of the learnt nouns as far as their

proficiency levels were concerned" (Morshedian, 2008: 88). This result also echoes Bahrick's (1984) and Weltens's (1989) findings.

1.9.6. Abbasian and Khajavi's (2008) Study: Loss of EFL Vocabulary after Years of Disuse among Iranian Teachers

Abbasian and Khajavi's (2008) study aimed to explore the rate of vocabulary attrition among Iranian teachers with different years of English disuse, viz., long intervals. They tended to test two research questions: (1) Do different years of English disuse have any significant effect on attrition of learnt vocabulary? And (2) Do teachers perform better in Persian to English translation or English to Persian after years of English disuse?

The subjects were 210 male Persian teachers varied in the years of experience in teaching aged between 25 and 35. These were teachers of Persian literature who have the least use of English after graduation. They were assigned into 7 groups of thirty with 2, 4, 5, 6, 7, 8 and 10 years of English disuse who had scored between 15 and 17 in the global English course.

The instruments used in the study were 2 translation tasks comprising 20 items each: one from English to Persian and the other from Persian to English. The tested items were selected based on their frequency in General English Book of Human Sciences which was a book for university students for many years. The participants had mostly learnt vocabulary through translating the words into Persian. Besides, they were accustomed to such translation tasks. The tasks were administered to the subjects with a week interval so as to avoid the effect of learning in the first administration.

The researchers found out that there was a close relationship between the years of English disuse and attrition of English vocabulary. The results showed that the 2 years disuse participants lost almost 50% of vocabulary and the group of 10 years disuse lost almost 94% of their lexical knowledge. Table 1.4. summarises the results of translation of English words into Persian.

Years of disuse	2	4	5	6	7	8	10
Means	57.16	41	35.66	22.66	17.5	10.66	6.5

Table 1.4.: Scores of Teachers in Translation of English Words into Persian

The researchers found out that the results were not in line with Al-Hazemi's (2000) whose results revealed that the period of English disuse didn't have a great effect on the amount of lexical attrition. They reported Ecke's (2004) concept on the decay assumption which implies that "the frequency and recency of use of the structure (i.e. its continuous activation) is crucial for the maintenance and access of the information in memory. The lack of use of the information results in the dissipation of a 'trace' that has been imprinted for a piece of information, represented in the brain" (Abbasian & Khajavi, 2008).

What was also revealed from the findings was that the participants' scores of translation from Persian to English (with a mean of 15.95) were lower than on English to Persian translation (with a mean of 27.30) as the years of English disuse increased. Therefore, attrition of lexical knowledge increases as the years of English non-use increases and it is high when the English lexicon is to be productive, in other words, when the participants had to produce the translated words from Persian to English.

1.9.7. Alharthi's (2012) Study: EFL Students Teachers' Vocabulary Attrition

Alharthi's (2012) study aimed to explore evidence of vocabulary attrition/retention among Arabic speaking majors after their graduation and mostly after starting teaching English as a foreign language, viz. (1) to determine how quickly attrition sets, (2) to find out the extent to which performance rankings at the end of formal instruction predict performance rankings afterwards, (3) to discover whether receptive or productive word knowledge is more resistant or susceptible to attrition and whether nouns are more forgettable after the end of formal instruction..

36 male Saudi EFL students took part in the investigation. They were tested just before graduation (Time 1), 7 months after graduation (Time 2) and subsequently over a period of 8 months (Time 3).

A number of research tools were used to carry out the study, notably, Vocabulary Levels Test (VLT), Productive Vocabulary Levels Test (PVLT), achievement vocabulary tests, questionnaire and retrospective semi-structured interview.

The results showed a decline in vocabulary knowledge (receptive and productive) between Time 1 and Time 2 with a considerable amount of attrition of productive vocabulary over receptive. These results echoed those obtained by Bahrick (1984), Bierling (1990), Marefat and Roushad (2007), Morshedian (2008), Abbasian and Khajavi (2011) (as reported by the researcher himself), i.e., there was an initial decline in word knowledge immediately after formal instruction had ceased. However, it was interesting to find out that the scores of the subjects increased slightly between Time 2 and Time 3. This might be due to the short time interval under investigation and the subjects' attained levels of language as most of them worked as EFL teachers.

The researcher also found out that productive vocabulary was more considerably lost than receptive vocabulary between Time 1 and Time 2 with means (M = 5.85) and (M = 2.44) respectively. He reported having found the same results as in the previously cited studies. He explained that among the factors causing this phenomenon are "the level of difficulty involved in learning the lexical information (i.e. productive information is harder to learn than receptive) and the instrumentation applied (i.e. Productive Vocabulary Test). In other words, the greater the overall task difficulty, the greater the effect of attrition" (Alharthi, 2012: 244). Moreover, he concluded from the scores of the three times of the research that the type of vocabulary knowledge was not a significant variable to impact the loss of vocabulary over the 3 times.

As for the category of words most vulnerable to attrition, the findings uncovered that verbs and adjectives were more forgettable than nouns in both RVT and PVT fifteen months after the end of formal instruction, contrary to what was found by Cohen (1989). He explained the phenomenon by the easier learnability of nouns according to the widespread belief shared by researchers such as Laufer (1997) referring to the part of speech as one of the difficulty factors having an effect on the learnability of lexical items.

Alharthi (2012) also investigated the effect of initial proficiency level on attrition. The results showed that the peak proficiency level was not an effective predictor of attrition. And concerning the use of vocabulary learning strategies, particularly, discovery and memory strategies, he noticed a change in the use of these strategies in the 3 times of the study. His EFL students teachers used discovery strategies, namely, guessing from the context and consulting a dictionary in Time 1 more than they did in Time 3, and in Time 3 they used only the guessing from the context strategy. He explained that it would look bad for an EFL teacher to ask someone or use a dictionary in front of his students. Besides, the use of memory strategies, particularly, repetition with Arabic translation (at Time 2) was linked to a loss of receptive vocabulary. He argued that the use of L1 reduces the opportunities to practise L2 vocabulary which in turn contributes to the loss of receptive vocabulary.

1.10. Methodological Issues in Second Language Attrition Research

From the empirical research on language attrition, and particularly vocabulary attrition, different methodologies for measurement have been used and contradictory results have been tallied; the thing that makes it difficult to draw conclusions (Mutagh, 2003; Hansen & Reetz-Kurashige, 1999). Let us take the proficiency level, also referred to as the training level, as a variable in vocabulary attrition. Bahrick (1984:116) concluded that "the total amount of content to be forgotten during the five years following training is relatively constant for

individuals at different levels of training". On counter line, Weltens (1989) reported that attrition is independent of training level. The answer to the question of the causes of the conflicting findings "lies in the study designs and the instruments" (Hansen & Reetz-Kurashige, 1999:14). Schmitt (2000: 129) concisely corroborates stating that "studies into attrition have produced mixed results, largely because of the use of different methods of measuring vocabulary knowledge". The objective behind such a concern is to "adopt a more scientific or rigorous approach to the issue of measurement in attrition" (Murtagh, 2003:38).

From literature, the methodological issues in language attrition are summarised in the subjects' age and L2 level of proficiency at the onset of the investigation (Hansen & Reetz-Kurashige, 1999) in addition to the time periods in the attrition-acquisition process (Bardovi-Harlig & Stringer, 2010).

A summary of the previously presented studies (see 1.9) on lexical attrition is classified in the table below (1.4.) which is almost adapted from Alharthi's (2012) which, in its turn, follows Weltens and Grendels (1993) summary of studies on vocabulary attrition.

Study	Population	First language	Target language	Incubation period	Type of instrument	Results
Bahrick (1984)	773 EFL High School/ College students	English	Spanish	1-50 years	Sp-Eng recall vocabulary test Eng-Spa recognition vocabulary test	1-5 years attrition 6-25 years no attrition
Cohen (1989)	2 children	Hebrew & English	Portuguese	1-11 months	Storytelling and recognition	Attrition in nouns
Weltens (1989)	150 EFL secondary school	Dutch	French	2-4 years	Fr-Dutch recall + written test	Attrition in self-reports Small

						decrease on written lexical items
Russels (1999)	20 university students as missionaries in Japan	English	Japanese	varied	Free monologue task	Decrease in vocabulary size Use of code-switched words
Morshedian (2008)	60 EFL university students	Persian	English	3 months	Receptive/ productive vocabulary tests.	Significant attrition in productive than receptive vocabulary
Abbasian & Khajavi (2011)	210 literature teachers	Persian	English	2-10 years	Receptive (translation task)	Severe attrition in vocabulary
Alharthi (2012)	36 EFL teachers students	Arabic	English	15 months	VLT/PVLT/ Achievement tests	More loss of productive vocabulary Nouns are less forgotten

Table 1.5.: Summary of relevant research of vocabulary attrition in the context of FL

The table encompasses a brief review of the studies designs used by these researchers to carry out investigations on FLA.

As for the subjects' age, Cohen found out that the older sibling could remember vocabulary more than the elder, which means that the elder experienced more attrition than the older even though they attended the same lessons in Portuguese. Likewise, the young and less competent subjects of Reetz-Kurashige's

(1999) investigation attritted more than either Weltens's (1989) highly competent or Bahrick's (1984) older subjects.

The level of competence is another factor that influences vocabulary attrition. In first language attrition, it is easy to establish a baseline for skills; it is assumed that "the 'initial L1 proficiency' or baseline level reflects that of a competent or proficient user" (Murtagh, 2003). It should be noted here that it is not always the case since the L1 of Arab speakers is not their everyday spoken language, they have to learn it at school and thus they cannot excel as native speakers of other languages do in their L1. So, to draw baseline levels of proficiency equivalent to the target groups, a reference is made to a control group. However, it has been pointed out that attrition and retention is not necessarily constant for individuals with the same level of initial proficiency (Murtagh, 2003). The matter could call then for other factors, notably, attitude and motivation in addition to the previously cited variables (Bardovi-Harlig & Stringer, 2010).

The period of incubation (non-use) is also a factor in attrition. Morshedian (2008) found out that his Iranian students improved in their receptive lexical knowledge after the end of summer vacation. The results from the studies carried out with test measured over a short interval could be equivocal because of the possibility of learning yielding from a practice effect. Weltens (1987) criticized investigations with such an interval of measurement, he stated that "investigations should be carried out over periods of non-use than three months which is the period that the majority of studies have looked so far" (Weltens, 1987; qtd in Alharthi, 2012:75). Gardner *et al.* (1987:45) believe from their part that "further studies should attempt to extend the length of the incubation period [i.e. the period of non-use] while ensuring that students do not participate in formal language study".

Having a look at the cited factors of vocabulary attrition, namely age, level of proficiency, amount of time over which attrition is measured, in addition to the tools used to elicit data (be it task and tests) and the design of time series assessments (repeated measures or comparisons between groups), it could be noticed that the results are like pieces of puzzle that are still being put together so

that to come out to a theoretical framework for research on language attrition and particularly on vocabulary attrition (Hansen & Reetz-Kurashige, 1999).

Dealing with methodological issues, one cannot neglect Bardovi-Harlig and Stringer (2010) model for the assessment of language attrition and retention. They suggest two design factors that they believe should characterize any comprehensive study of L2 attrition; these are time periods and the populations. They mentioned four periods. The first period is the one of formal instruction, the second one may take place in a country where the language in spoken, the third period is that of attrition, often called incubation (or period of reduced input), and the fourth is a period during which relearning may take place.

During each of these periods, a number of variables are part of any investigation which are related to any target population; "A learner's age, attitude and motivation all influence the outcome of the periods both for acquisition and attrition" (Bardovi-Harlig & Stringer, 2010:35). As it is mentioned by the authors, motivation and attitude, being variables, may change within and between periods. Moreover, "In each period, a learner will also have developing, stable, or attriting competence in different submodules of the language"(p. 35).

To track the variables, two types of assessment are used at the three phases of the Study: a formal assessment that aims to investigate the actual interlanguage of the target population and a background questionnaire to establish the subjects' attitude and motivation, and language-contact profile. The diagram below is one of the examples provided by Bardovi-Harlig and Stringer (2010) which matches the present study. The population in question in this diagram is high or university students in language courses who undergo varying degrees of attrition during their summer vacation.
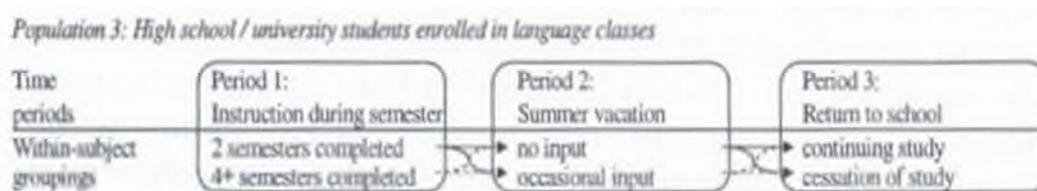
Figure 1.5.: Example of Assessment of Attrition over Discrete Time Period

In this diagram the authors provided a general idea of populations to which this model of assessment can be applied in addition to the discrete time periods which make the stages of any investigation.

1.11. Conclusion

From the provided literature, vocabulary attrition can be defined as the deterioration in lexical knowledge of speakers of a foreign language, being the type of language attrition dealt with in the present work. As a result of disuse, low proficiency level, low motivation, negative attitude towards the target language, inadequate learning or teaching or else, vocabulary knowledge wears off. The causes, patterns and rate of attrition are the concern of scholars interested in the field. Some hypotheses have been suggested to describe the nature of the attrition process, notably, the regression hypothesis, the critical threshold hypothesis and the inverse hypothesis. These hypotheses seem to call for more laborious work in the field to be maintained or rejected.

The present investigation attempts to probe some factors which can have an impact on lexical attrition on the target population. To these factors a review of literature is presented. They are the initial proficiency level, the use of vocabulary learning strategies, be it discovery and memory strategies, the type of word knowledge, then, receptive and productive vocabulary, vocabulary teaching methodology, disuse over summer vacation, and attitude and motivation. These are going to be compared to findings of key studies already conducted.

The main studies in relation to lexical attrition, even though many investigated the different language skills, provided results that contribute efficiently to explain the phenomenon of attrition. Those referred to, to cite but some, are

Bahrick's (1984), Weltens's (1989), Morshedian's (2008) and Alharthi's (2012) study.

The only research which probed the effect behind the use of vocabulary learning strategies, conducted by Alharthi (2012) revealed that the use of memory strategies, specifically, repetition with Arabic word translation is not so helpful for a better retention; students lost receptive vocabulary by the use of this strategy because they lower the opportunities to practise the L2.

CHAPTER TWO:

TEACHING / LEARNING SITUATION AND STUDY DESIGN

2.1. Introduction

Language studies seem to require to be accomplished in a variety of contexts, besides the need to be investigated from different data to gain a deeper understanding and a wider view of the nature of the research being conducted. As a follow up of the secondary data providing an overview of the literature in relation to the present topic, the present chapter is of an empirical aspect trying to explore the studied phenomenon from close. It attempts, mainly, to have an idea about the factors that may be related to students' lexical attrition.

The chapter tries to describe the teaching situation in which the investigation was conducted in addition to its design. The first part attempts to describe language policy and the ELT situation in Algeria from the middle school to the university level exposing the objectives of and perspectives behind teaching English within the newly adopted reforms (2003). It tries as well to give an overview of the LMD system and its adaptation in higher education. Moreover, it describes the English Department at the University of Tlemcen.

As the investigation reflects on action research in foreign language education, the second part of the chapter frames the conducted study. It provides the overall objectives motivating the research and the study design; this latter is presented in a detailed account shedding light on the data elicitation instruments.

2.2. Language-in-Education Policy in Algeria

The richness and complexity of the existing languages in Algeria make of it a particular Arab nation. These languages co-exist to ensure an everyday communication or to serve academic functions. Tabory and Tabory (1987, qtd in Rezig, 2011) describe the linguistic situation in Algeria as complex because of the presence of tensions between French, the dialectal language, and Arabic, the national language; classical Arabic and colloquial Arabic (also called Algerian Arabic); in addition to the various Berber dialects versus Arabic.

The variety of languages in Algeria is shaped by its sociocultural history and sociocultural profile (Benrabah, 2016). The same author traces the origin of the variety explaining that

> Berbers came under the yoke of the Phoenicians who imposed their Carthaginian rule for about seven centuries, subsequently Romans for about six centuries , the Vandals and the Romanized Byzantines for about a century each. The Islamo-Arabo- Berbers dominated the region for about four centuries, the Turks for about three centuries, and the French, who brought Turkish domination to an end, for more than a century and a quarter. Spaniards occupied enclaves along the Mediterranean coast intermittently between 1505 and 1792. One of the consequences of this long history of mixing peoples was language contact and its by-product, multilingualism …

> (Benrabah, 2014: 43)

As an aftermath of the cited history, and just after the independence, the variety of languages created many struggles, both at the political and the cultural levels, that gave birth to more than a language policy; notably, arabic-sation, bilingualism (Arabic and French), and the English language status (Lakehal-Ayat, 2008; qtd in Rezig, 2011). According to Benrabah (2007a), the language policy in Algeria consists of three phases:

- ✓ The first phase is featured by the French colonial legacies. During this era, "a network of schools and an educational system dominated by the French language with Arabic growing steadily" was established.

- ✓ The second phase covers the period between 1960s and 1990s. It corresponds to "the socialist-era central planning economy, called the nationalist transition. The Arabic language was gradually imposed in the educational sector."

- ✓ The third phase began in the early 2000s. It corresponds to "the transition to the free economic market with less assertive arabisation policies". During

this phase "the authorities have encountered hostility to the reform of the schooling system."

<div align="right">(Benrabah, 2007a: 225-6)</div>

From the two first phases, the inclination towards the Arabicization is clear just after the independence (1962). The Arabicization that entails the extensive use of Arabic in all domains of life, be it, political, social and cultural (Dekhir, 2013). What motivated the implementation of this policy was that Arabic is the language of islam which was the soul of the revolution, and that Arabic is the language of the independent nation. In this line of thought and longing for Arabic to replace French, there were those who wanted to implement *arabicization* which is a mainly linguistic process where French was replaced by Arabic, in Middle East countries such as Egypt and Lybia, in most public domains of use, notably, in administration, media and the medium of instruction in all cycles of educational system (Benrabah, 2013). There were also those who wanted *arabization* which was a process by which French would be replaced by Arabic both at the linguistic and the cultural level represented by Ulemas (Benrabah, 2013).

Therefore, after the independence (1962), the official language shifted from French to standard Arabic accompanied by the belief that Arabic will totally replace French at all levels. In 1963, a leading Algerian poet/writer forecasted this development stating that

> In ten to fifteen years…, Arabic will have replaced French completely and English will be on its way to replacing French as a second language. French is a clear and beautiful language, …but it holds too many bitter memories for us.

<div align="right">(Benrabah, 2007b: 193-4)</div>

Under the presidency of Ahmed Benbella (1916-2012), the first president of the free Algeria from 1962 to 1965, the implementation of arabicization in primary schools was initiated (Djebbari, 2014). It should be noted that this policy obliged

the government in 1966 to recruit Egyptian, Syrian and Iraqi teachers to instruct Arabic; 3,500 (27%) teachers out of 13,000 teachers on the territory were non-Algerians. Most of these teachers lack the adequate qualifications and the faith in their task; moreover, their accent represented a handicap for communication (Benrabah, 2002). Against the intensive arabicization, Mostefa Lachraf, Minister of Education in April 1977 (under the presidency of Houari Boumediene (1931-1978), which lasted from 1965 to 1978, favours the gradual arabicization and a strong form of Arabic-French bilingualism that ended soon as the President died in 1978; this tipped the balance again to arabicization by the arrival of the President Chadli Benjedid (1929-2012), from 1979 to 1992, in the new national Charter of January 1986 (Benrabah, 2013).

From the late 1970s to the 1990s, French was taught as the first mandatory foreign language starting from the primary school (the fourth grade) and English was the second foreign language taught at the middle school (the eighth grade) (Djebbari, 2014). This was introduced by Mohammed Cherif Kharroubi in 1979, the minister of Primary and Secondary Education by the time of the presidency of Chadli Bendjedid.

By 1993, English was introduced as the first language in competition with French where the pupils were allowed to choose between the two languages (Benrabah, 2007b). Yet, English didn't succeed to be the first foreign language since no more than 1.28 % out of the 2 million school children chose English as a second language between 1993 and 1997; moreover, the already cited prediction made by the Algerian poet/writer was not a success. It has to be admitted that "Arabicization, or the language policy implemented to displace French altogether, failed" (Benrabah, 2007b: 194) letting the existence of bilingualism (Arabic - French) a reality which is manifested through the instruction at the university level, viz, 95% of under-graduate and post-graduate courses in medicine and sciences are taught in French language (Meliani, 2000), in addition to the utility to serve some administrative and civic functions. This echoes Mazouni's prediction reported in Benrabah for the issue of language in Algeria who, in 1969, posited that "rapid

arabicization might prove, among other things, harmful to the Arabic language itself, it might be regressive and could alienate students because the language was difficult and the teaching tools were inadequate" (Benrabah, 2014 : 47).

As for Berber, just after the independence and still under the presidency of Ahmed Benbella (1962-1965), who was against Kabyles, the only existing Chair of Berber Studies at Algiers University was abolished in October 1962; this decision met armed struggle led by the historical leader Hocine Ait-Ahmed until his exile (Benrabah, 2013). The President Houari Boumediene (1965-1978) condemned the Berber militants asking for the recognition of their language in the Charter of August 1976 (Benrabah, 2013).

Anew, and in the spring of 2001, the Berbers called for the recognition of the Berber culture and to make of Tamazight an official language; consequently, Tamazight was recognised officially as a national language and was implemented in the Algerian educational system in the so speaking regions. The language was recognised by the actual president Bouteflika (since 1999) in the constitutional amendment of February 2002, Amending Ordinance N° 35/76 of the 1976 constitution, and its culture has to be respected (Djebbari, 2014). Once appointed minister of education (in 2014), Mrs. Benghebrit, declared that "the Ministry of Education is ready to work with all concerned bodies of the Republic to extend and generalize the teaching of Amazight" (L'Expression, 2014); a decision had to be made about which graphic to be adopted to write the language in the course books, whether the *tifinagh*[11] alphabet, Latin letters or Arabic letters (Atlas Blida, 2014).

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[1] The *tifinagh* is an alphabet which has been used by the Berbers in North Africa and the Canary Islands at least from the third century B.C. up to the third century A.D. (Unknown, no date). The letters seem like:

ⵀ	ⵀ	ⵝ	ⵝ⁰	ⵠ	⵳	ⵞ	ⵣ	ⵣ⁰	ⵔ	ⵝ	ⵈ	ⵆ	ⵁ	ⵤ
ya	yab	yag	yag^w	yad	yaḍ	yey	yef	yak	yak^w	yah	yaḥ	yaε	yax	yaq	yi
a ا	*b* ب	*g* گ	*g^w*	*d* د	*ḍ* ض	*e*	*f* ف	*k* ك	*k^w*	*h* ه	*ḥ* ح	*ε* ع	*x* خ	*q* ق	*i* ي

Efforts have been made to expand the teaching of the language and by the academic year 2016-2017, it was announced that it would touch 32 wilayas of the country (Al huffington post, 2016).

By the sprang out of globalisation and the longing for the immersion in this trend, in addition to the socio-economic situation calling for the use of English, Algeria started to raise consciousness about the importance and the utility of the English language so as to catch up with the new demands. Mami (2013) thinks that French starts to lose weight and begins to wear off leaving more space to the teaching of English as a second language.

From the flows and ebbs of arabicization and bilingualism to the English language of globalisation, it could be drawn that "the process of building a national identity must go beyond the official language" (Chemmami, 2011: 232). Arabic is the national language, Arabic and French make the bilingual situation in Algeria because of historical factors, and English is a must because of the requirements of the globalisation and the technological development, and international communication.

2.3. EFL in Algeria

As the aftermath of the rapid development of information and technology, English quickly gained power and shifted from the international language to the global language since the world becomes a small village. To cope with this growth in an already linguistically complex country, Algeria has taken measures to promote the wide spread and the good command of the language. This was the result of some developments in 1995 that she witnessed, namely,

> the end of a civil war that killed between 150,000 to 200,000 people, a significant exile of Francophone intellectuals, the rise of oil prices which improved the economy on the macroeconomic level, and a shift from a

socialist economy that supported Modern Standard Arabic to a market economy that requires the learning of foreign languages.

(Belmihoub, 2012: viii)

Sight should not be lost on the main objective behind these measures which is to improve the educational system that has suffered from failure (see 2.2.). Therefore, English competes with French predicting that it succeeds to remedy the previous failures. In this context, Miliani (2000) states that

In a situation where the French language has lost most of his ground in the sociocultural and educational environments of the country; the introduction of English is being heralded as the magic solution to all possible ills- including economic, technological and educational ones.

(Miliani, 2000)

Consequently, English was defined as the second foreign language by the early 1990s and the first foreign language after the reform of 2000 in order to "gain the status of the language of science and technology used in lifelong learning in recent years" (Mami, 2013: 433). The stress is put on the competencies the learners have to acquire throughout their path of education so as to take part effectively in the social, economic and cultural levels of the country's development. These competencies should cover the four skills so that the learners can be adequately integrated in the nation's development and to ensure an efficient role at the level of international interaction due to the communicative and economic requirements imposed by globalisation.

Reforms have been introduced to reach the objective of forming proficient English language learners. These were introduced at the primary and middle schools and later the university level.

2.3.1. EFL in Middle School Education

From the end of the 1970s to the early 1990s, English was taught at the middle school at the eighth grade as the second foreign language. Exceptionally,

English was introduced at the primary level (fourth grade) instead of French in 1993 but it was not an idea welcomed by parents; it turned to failure. However, it seems that the policy has reached a certain stability. These last years, English is taught at the first year of the middle school. This can be noticed by the new reforms that resulted from the implementation of the competency-based approach in 2003 to which newly textbooks were designed. These are classified below.

Year of study	Textbook
1st year: Première Année Moyenne 1°A.M.	Spotlight on English
2 nd year: Deuxième Année Moyenne 2°A.M.	The Second English Course book
3rd year: Troisième Année Moyenne 3°A.M.	Spotlight on English 2
4th year: Quatrième Année Moyenne 4°A.M.	On the Move

Table 2.1.: English Textbooks at the Middle School Level

What is expected from the four years of English instruction is that the pupils receive the basic knowledge that allows them to acquire the required mastery of the basic structures and skills of the language. This is what is stated by the syllabus designers and the objective is to be reached by the application of the CBA. However, teachers have found themselves confused in how to teach using this new approach to which only ambiguous theory is known. Consequently they find themselves secure in using their old teaching methodologies. The objectives prescribed in the teachers' guide are to develop pupils' knowledge of grammar, pronunciation, vocabulary and the four skills in order to interact appropriately. What is instructed is supposed to prepare the learners for the secondary school level.

2.3.2. EFL at the Secondary School Education

At this level, pupils are supposed to be familiar with the language and to have acquired reasonable knowledge of the basic structures of English. They are introduced to the four skills that have already been studied at the middle school level, in addition to grammar, pronunciation, new vocabulary, language forms and functions but at a pre-intermediate level. The textbooks used throughout the three years preparing the pupils to sit for the baccalaureate exam are classified in the table below:

Year of study	Textbook	Weekly allotted time
1st year: Première année secondaire 1°A.S.	At the Crossroads	3/4 hours
2nd year: Deuxième année secondaire 2°A.S.	Getting Through	3-5 hours
3rd year: Troisième année secondaire 3°A.S.	New Prospects	3-5 hours

Table 2.2.: English Textbooks at the Secondary School Level

The time allotted to the subject varies according to the stream; from 3 hours for scientific streams to 4 and 5 hours per week for literary and foreign languages streams. What is reported from the Teachers' Guide is that the syllabus is believed to provide the learners with activities that help them enhance their competencies in the language. It is intended to lead the pupils to interact efficiently with their teachers. Texts are varied and they are intended to offer the learners knowledge about different themes. Moreover, the activities which accompany them are supposed to help the learners deepen understanding and interpretation of the content, and foster them to develop productive skills via speaking and writing tasks.

However, what is noticed from the teaching situation on the ground is that the syllabus does not really meet the expected objectives from the syllabus designers Bouabdesselam (2001).

In fact, to the imported approach a number of conditions should be available to make of it a success. Teachers undergo many difficulties that hinder their teaching. These are varied; to cite but a few:

- The lack of teacher training doesn't favour the effective teaching. Teachers rely on their own experience in teaching. Even though teachers are willing to bring the required knowledge to the pupils, they need to have enough knowledge on how to transmit it. In this context, Mami (2013: 434) believes that there is a gap between theory and practice, "between the 'know' and 'know how'. It is not enough to do our best; we should know what to do, then do our best to achieve it".

- The over-crowded classrooms make the transmission of the message inadequate, if not, ineffective. Classes are made up of 35-50 pupils besides their indisciplinary problems at this age (being adolescents), they become, sometimes, unsurly and uncooperative. Teachers find themselves losing time restoring order in such classes and simultaneously losing the spirit of an appropriate atmosphere for a harmonious teaching learning situation. Harmer (1991) believes that overcrowded classrooms can be excessively de-motivating. The situation, thus, demotivates both teachers and learners willing to study.

- The teaching materials are restricted to traditional ones: the textbooks and the blackboard. Technological tools that meet the digital age learners' interests are almost absent. And most of the time teachers do not master them. They remain restricted to a very limited number of schools and used by a limited number of young teachers. The use of new technologies can attracts their attention and raise their interests during the lecture.

(Adapted from Djebbari, 2014)

At the end of the three years of instruction at the secondary school the success in the decisive examination 'baccalaureate' allows the learners to major at the university studying the speciality that interests them. And in all of these English is studied, if not a speciality, as a module in the LMD system.

2.4. EFL at the Tertiary Level

English is taught in almost all the universities across the Algerian territory. This is due to the importance of the language which is taught in different departments as an ESP due to its needs for almost all the newly scientific research or in English departments. The 2003 reforms were applied also at the university level like the other educational settings by the implementation of the LMD system.

2.4.1. LMD at the Tertiary Level

The reforms the Algerian university has witnessed independence witnessed changes have tried to respond to the economic and societal changes that occurred at the different phases of the country's development. Prior to the LMD implementation the classical approach relied on three cycles, notably, the Licence (4 years), the Magister (2 years) and the Doctorate (4 years). In seemed that by the advent of the new millennium, the old system

> did not respond to the main challenges imposed by the changing situation of economy, politics and society in Algeria, an important shareholder of many foreign countries. In other words, there was a serious disagreement between social demands, market demands and what the university produced.
>
> (Hemche-Bereksi Reguig, 2014: 106-107)

Admittedly, globalisation is the single factor encompassing the whole factors of change higher education underwent; this is clearly explained by Albach *et al.* (2004; qtd in) who state that: "Globalisation is defined as the broad economic, technological, and scientific trend that directly affects higher education and is largely inevitable". Consequently, in 2004 the Algerian government and education policy makers decided to implement the European educational system known as the LMD system.

After the Bologna process (1999) which is the series of the ministerial meetings and agreements between the 29 European countries, a decision was made to launch this new conventional system. It is deemed to be a reshaping of the architecture of the higher educational system which aims to achieve a teaching quality which responds to the requirements of the new world. This architecture revolves around three levels; the Licence (3 years), the Master (2 years) and the Doctorate (3 years). It is represented in the following diagram:

Doctorate
(3 years)

Master
(2 years)
Research Master
Professional Master

Licence
(3 years)
Academic Licence
Professional Licence
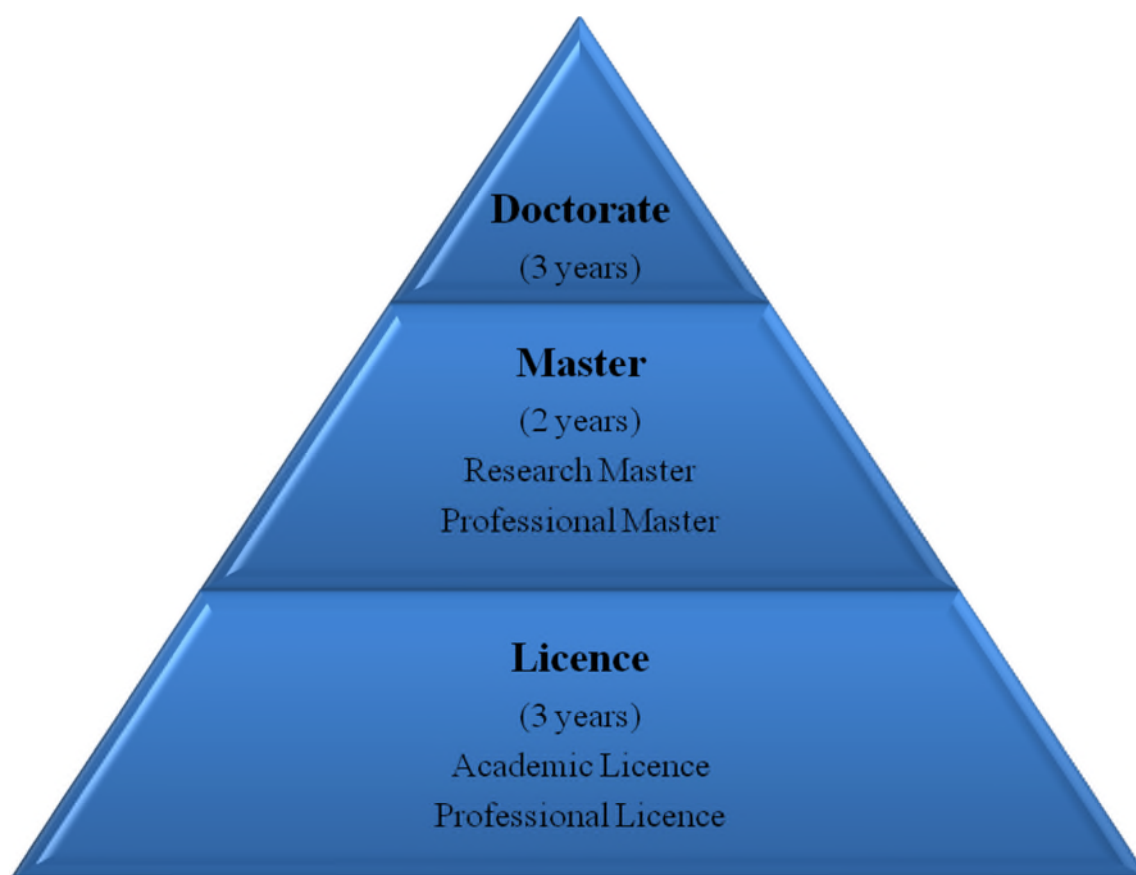
Figure 2.1.: LMD System Architecture

The model opted for by the Algerian Ministry of Higher Education, as it is the case of the other countries adopting the system, is shaped on three levels of training, each corresponding to a degree:

✓ The Licence level tallies three years of studies after the baccalaureate leading either to an academic licence or a professional licence.

✓ The Master level follows up the Licence Degree and corresponds to two additional years of study leading to a research master or professional master.

✓ The Doctorate level is acquired after three additional years of study following the Master Degree.

So for the system to be beneficial and successful, Mami (2013) thinks that there are number of measures to be taken into account at the level of curriculum design and integration. These are:

1. Planning and evaluation of the students' needs as well as those liaised to the socioeconomic market,
2. Developing multimedia at the level of oral expression and vocabulary,
3. Encouraging student enhancement with mobility,
4. Creating cooperation between universities who share the same objectives and interests.
5. Create listening cells and audits in order to register students' propositions.
6. Prepare students for vocational education through the choice of English.

(Mami, 2013: 434)

To make the objectives expected by the reform clear to the university teachers and researchers, the Ministry of Higher Education and Scientific Research posted, in January 2004, a guideline summarising the main new tasks of the university, these are as follows:

▪ Provide quality training.

▪ Make a real osmosis with the socio-economic environment in all possible interactions between the university and the outside world.

▪ Develop mechanisms for continuous adaptation to changing jobs.

▪ Be more open to global developments, particularly those of science and technology.

▪ Encourage diversity and international cooperation.

▪ Lay foundation of good governance based on participation and consultation.

(Hemche-Bereksi Reguig, 2014: 123-4)

Still at its embryonic phase, the system has been criticised and "So much has been said by the ill-intentioned adversaries, the poorly-informed public, and the badly-trained supporters. So between the rock and the hard place, this reform cannot develop harmoniously" Miliani (2010: 70). On the face to it, Haraoubia (2013; qtd. in Djebbari, 2014), (Minister of Higher Education and Research) replied to such claims stating that "those stating that the LMD system has failed, did not understand the real content of this system until today!". Moreover, it is believed that this reform is beneficial for the students since more equity is offered to them, contrary to the old system which was very selective; moreover, he praised the fact that it has been the first time where real freedom was given to the experts and some trust invested in the 60 professors coming from more than 10 universities (Miliani, 2010). A closer look will be made in the following section at the characteristics of the LMD system in the Algerian university.

2.4.2. Features of the LMD System

The system is essentially featured by the three degrees which have already been described (see 2.4.1.), namely licence, master and doctorate divided into semesters, in addition to the semestrialisation, teaching units and credits. What follows describes these features according to « The Practical Guide of the Implementation and Monitoring of LMD- June 2011 » (« Guide pratique de mise en œuvre et de suivi du LMD – juin 2011 »).

a. Semestrialisation:

The course of study is based on semesters rather than years. This aims at a better organisation and more flexibility in the system. Thus,

- Licence (BA): corresponds to 6 semesters (the equivalent of 400 hours)

- Master: corresponds to 4 semesters

- Doctorate: corresponds to 6 semesters

The Licence and Master consist of studying semesters whereas in the Doctorate the students receive a training programme according to their speciality.

b. Teaching Units:

The studied modules are classified into units, these are:

- Fundamental unit: includes the fundamental educational systems that formulate the student having a direct relation with the discipline.

- Exploratory unit: Provides the student with the depth in their speciality and allows them to learn about new subjects in new fields.

- Methodology and general culture unit: allows the student to acquire the necessary tools of the scientific research (computing, statistical systems, scientific research methodology, foreign languages ...)

c. Credit System:

The credit represents the time size of the student's work estimated between 20 to 25 hours. The total credits of the semester are 30 credits that must be obtained to succeed the semester. Each module has credits and the credits of each teaching unit are determined by the total number of the modules credits that can be capitalised and transferred. If a student does not get the needed credits for first semester, he can pass to the second semester with credits go in the first one, in other words, he can pass to the following semester but remains indebted.

d. Tutoring:

The other characteristics of the LMD system is tutoring which is a new pedagogical activity for the teachers. It allows a teacher-student interaction away

from the academic sessions. The direct relation between the teacher and the students offers opportunity to the students to get more informed about the discipline and the system.

With the implementation of the LMD system, the Algerian university keeps pace with the world's universities. Simultaneously, the students are allowed to follow the flow of the third millennium development and to keep pace with the world's educational system, especially for those who tend to study or work abroad. Sight shouldn't be lost on the importance of English in this flow of development being the language of technology and innovations. A description of the department of English at the University of Abou Bekr Belkaid, Tlemcen is presented in what follows being the arena of the conducted study.

2.4.3. Department of English

The present investigation took place at the Department of English at the University of Tlemcen (previously called the University of Abou Bekr Belkaid), Faculty of Letters and Languages. The cradle of the department was the Institute of Foreign Languages and Letters founded in 1989, and later in 1995, it became independent including French and English sections. In 1998, the Faculty of Letters and Languages was established to which the Department of Foreign Languages, consisting of English, French, Spanish and Translation sections belonged. And in May 2014, a decision was made to make the Department of English autonomous, yet the section of Translation is part of it.

The Department of Foreign Languages at the University of Tlemcen was not among the first University Departments which launched the LMD system. It was until 2007 that it started its application in the section of French and a year later (2008) in the English section.

Students majoring at the department are supervised by teachers holding different degrees: assistant teachers, assistant professors and professors. They ensure their courses and provide them with the linguistic knowledge that allows

them to get their degrees. For the primary one, i.e., the licence, the students are introduced to mandatory modules including: Grammar, Phonetics and Phonology, Comprehension and Written Production, Comprehension and Oral Production, Study Skills, Linguistics, Anglo-Saxon Culture and Civilisation, Literary Studies, ICTs, Research Methodology, Sociolinguistics, Psycholinguistics, Human and Social Sciences, and Translation Techniques. The modules were fixed by the Ministry of Higher Education and Scientific Research and posted to the department (see Appendix A).

In the previous years, third year students were required to choose between two specialities: language studies or literature and civilisation. In addition they were asked to write an extended essay 'mémoir' or undergo training under the supervision of a teacher and write a pedagogical training report. However, in 2013, a ministerial decision was made against the extended essays and the students are no more required to write them.

During the licence, instruction is made to consolidate what the students learnt from the secondary school courses, and to enrich and enlarge their linguistic knowledge and to gear them towards the advanced level a university student should have. Moreover, it helps them pave the way to do further studies and research. Therefore, after holding the degree, the students can move to the Master level and later to the Doctorate degree.

Vocabulary is an important element in the language that transmits the desired message and it is omnipresent in all modules. Students receive it making their lexicon richer. The large acquisition of lexis enables the good interpretation of receptive language and the sumptuous production of an oral or written piece of language. Teachers in general, and precisely, in charge of Discourse Comprehension module (newly labelled Comprehension and Written Expression CWE) when providing their lectures use high and low frequent vocabulary referring to different themes. In so doing, they, unintentionally, repeat and consolidate the already and the newly learnt words. This is done for the sake of ensuring learning and enriching knowledge; and from one course to another, lexical learning is

supposed to be maintained. Sight shouldn't be lost on the fact that these students come to university with an accumulated language knowledge of 7 years (from middle and secondary schools). However, they remain of different proficiency levels since they come from different streams (exact sciences, natural sciences, literary and foreign languages streams); moreover, as a result of the CBA implementation to which middle and secondary schools teachers were uneasy knowing nearly nothing about it and acknowledged that "the pupils level is at a record low, and without the ministry's handling of the baccalaureate examination, the results would have been catastrophic." (Miliani, 2010: 71). Therefore, the students' proficiency level seems not to be reliable to the stage of learning they are in, i.e., the university level. The way vocabulary was introduced in discourse comprehension during their 7 previous years of studies is described in the following section.

2.5. Vocabulary in Discourse

The role of vocabulary in discourse, be it written or oral, lays in its importance to convey the desired message. Then, the communicative purpose of the text gears the selection and use of lexis. Good manipulation of words makes discourse constructed out of smoothness and coherence creating the various emotive effects (Schmitt: 2000: 96) which make the receiver appreciates and interacts with it. Moreover, the use of vocabulary, first, "signals and contributes to the uniqueness of the text" which makes it different from other texts, and second, "carries general discourse messages which are shared with other texts of similar types" (Nation, 2001: 205). These are considerations to be taken into account by course book designers aiming at making foreign language learning efficient and fruitful. The repeated appearance of the main lexis referring to the studied theme ensures its learning. The following part describes vocabulary introduction throughout the units comprised in the course books both at the level of middle and secondary schools, in addition the way vocabulary has been introduced to second year discourse comprehension module, the target population of the present study will be depicted.

2.5.1. Vocabulary in the Middle School Course Books

Prior to dealing with the way vocabulary is introduced in the course books, reference should be made to the actual adopted teaching methodology, being the Competency-Based Approach (CBA). The approach focuses on competencies learners should acquire; "these competencies combine the skills, abilities and knowledge needed to accomplish a specific task; the approach as based on the pedagogy of integration of the acquired language" (Translated by the researcher from Programme, 2006: 56). In other words, learners integrate what they learn to express real-life situations. The competencies learners are expected to master are: interaction, interpretation and production. To do so, they have to have a certain vocabulary luggage that allows them to interact appropriately and adequately. And the course book is intended to provide them with the basic word knowledge, at least, to ensure communication in the suggested themes.

The first unit from the fourth year textbook '*On the Move*' is taken as a sample unit to see how vocabulary is presented throughout the whole book. The unit includes vocabulary related to food and eating (names of dishes, cooking and eating habits) and vocabulary related to map reading.

What is noticed from the content of the unit and the organisation of vocabulary activities is that the introduced lexis is rich, yet, overwhelming. The number of words is large, and above this, it is not repeated to ensure consolidation and retention during the learning process. Some of the included words are: cook, boil, steam, roast, sprinkle, grill, parsley, fork, knife, turnip, lettuce, lipid, lemon, juicy, chick-peas, egg-plant, coriander, gourmet, mutter, curry powder, stew, spicy, lamb, pressure-cooker, etc.. Let's take a counting; for instance, parsley, egg-plant, stew and coriander appear only once in the whole unit, lettuce, turnip, mutton, fork and knife appear twice and supper/ soup three times. From the 22 pages covering the unit, the pictures used to illustrate the introduced lexis are only 10 representing: hamburger, haggis, fish and chips, to mix, pancake, doughnut, fried fish, carrot and turnip, egg-plant and courgette, peas and chick-peas, and frying pan. In addition, and in relation to discourse, the texts contain words which are not used afterward to

answer comprehension questions. Thus, they are not repeated. Some can be used for writing tasks. As for activities related to test vocabulary, they revolve around the following:

- Word transcription and repetition activities
- Word formation activities
- Chasing the intruder
- Gap-filling activities

This is the framework in which vocabulary is introduced in all the units. And besides them, some '*coping*' and '*tips*' rubrics (see appendix B) that teach pupils to use vocabulary learning strategies, such as use of synonyms, dividing words into roots and affixes, seeking help, guessing from context, and use provided pictures. 'Take a break' rubrics include recreational activities accompanied with pictures representing, for example, jokes, idioms, and tongue twisters. The design of the units is interesting and attractive, full of pictures related to the themes of the unit; however, it seems to be over-loaded with new lexis as acknowledged by the teachers, particularly with time allotted (3 hours a week), the overcrowded classrooms and badly-scheduled hours for English courses.

2.5.2. Vocabulary in the Secondary School Course Books

Likewise, at the secondary level, learners are exposed to a large amount of lexis throughout their textbook '*New Prospects*'. They are expected to learn and retain most of this vocabulary so that they can use them appropriately in the four skills. Concerning discourse lessons, the new words are related to the themes. There are thematic pictures at the beginning of each section (Getting started, Before listening, Before reading rubrics). They depict real-life situations that draw learners' attention and prompt them to look for words so as to be able to express what they think about. The introductory pictures to the listening and reading passages allow the pupils to learn more lexis and gear them to understand the texts (oral or written). On some pages , there are 'coping' and 'tips' boxes where the learners are introduced to techniques, rules and strategies they can use to find out , guess, infer

the meaning of words and even to form new ones. Examples of these are mentioned in Appendix B.

Through the rubrics of 'vocabulary explorer', vocabulary is tackled in different ways. They include a varied type of activities that cater for learners' vocabulary building skills. Such activities are:

- *Word maps*: a word is presented and the learners are asked to cite all the words related in meaning to the initial one to make a word map. Such activities allow the learners to organize and enrich their lexicon.
- *Gap-filling*: learners are asked to fill in gaps in a paragraph by words, generally, from a given list. Such activity aims to make the learners practise and focus more on the already studied vocabulary.
- *Word formation*: learners are introduced to rules for word formation. They are initiated to the different categories of affixes either for noun, verb and adjective derivation. It helps them develop the word-guessing strategy.
- *Matching*: in such activities, learners match words with their definitions, opposites or synonyms.
- *Chasing the intruders*: in such activities, the learners are introduced to lists of words and asked to cross the odd one out. It helps them find out words related in meaning.

Similar to the middle school textbook, it is well designed but overloaded with new lexis which makes the learners, of different learning styles and abilities, unable to learn adequate amount of it, especially because they prepare for the baccalaureate examination and they give more interest, time and effort to learning high coefficient subjects like mathematics, physics and biology.

2.5.3. Vocabulary in Discourse Comprehension Module

As for the Discourse Comprehension module with which the study was conducted, actually known as Comprehension and Written Expression, vocabulary

is a significant ingredient that ensures comprehension, whether oral or written. During the academic year 2013-2014, the teachers in charge of the module agreed upon the same way of teaching. The aim was that the students develop their reading skills, acquire more reading strategies, improve their reading comprehension, enhance their linguistic proficiency level and enrich their lexical storage.

Discourse can be both written and oral, however, the focus was put more on the written mode, i.e., use of texts because the students study another module of oral expression where they develop their listening and speaking skills, especially by the use of an equipped laboratory with audio-visuals where they are in direct contact with native speakers.

Then, the themes around which the teaching material of the module revolved around were varied, but a special inclination towards the British culture, and even American, was preferred since culture and language are intertwined (Brown, 2000). The teachers felt free to select the texts they think they would interest their students, meet their needs, motivate them to interact in the classroom and help them enrich their linguistic and environmental knowledge, meanwhile they exchanged their texts, activities and audio-videos.

Concerning vocabulary, teachers put stress on the new words, and particularly on the key words of the texts. They raised students' consciousness about the importance of (key) words to understand a written or oral passage; it is argued that "Without grammar very little can be conveyed, without vocabulary nothing can be conveyed" (Wilkins, 1972:111), therefore, with vocabulary they can understand and say almost everything. So they were geared to use their dictionaries and develop their lexicon. And in each text, an activity was devoted to practise vocabulary by looking for synonyms, opposites, providing definitions, finding words for definitions, and using the words into sentences of their own. The target words were highlighted more by writing them on the board, providing their synonyms and antonyms, building their semantic grid, and even drawing when possible. The use of audio-visuals adds a spice of variety and raises students' interests to the studied subject, and particularly helps leaning the related words especially if they were written somewhere.

Admittedly, vocabulary learning occurs with backsliding (Schmitt, 2000) because of its incremental nature; yet, teachers should know that during the learning process a period of 'initial fuzziness' (to use Thornburry's term (2002)) is inevitable. For this, they should think to ensure that the meaning, association and collocation of the introduced word are clear, and recycling the words from time to time refreshes their memory and decreases attrition. Teaching knowledge is crucial but teaching how to transmit it by using the appropriate words is a priority teachers strive to achieve it.

2.6. Research Sampling

The appropriate selection of the participants in an investigation is of a paramount importance. Questions arise on the number of subjects the research requires and what sort of subjects among the whole population should be selected. These concerns play a role in the success and validity of the study besides "the appropriateness of methodology and instrumentation" (Cohen, *et al*, 2005: 92).

The selection of the sampling is directly related to the approach of the research, whether qualitative or quantitative. In the quantitative approach, a large sample is used and it ignores the context dependent idiosyncracies; besides, it favours quantitative data; whereas, the qualitative approach aims at getting maximum understanding of the phenomenon under investigation, and it includes each and every contextual detail (Shakir Aziz, 2012). The present work focuses more on the qualitative approach as it tries to deepen understanding of vocabulary attrition of Algerian university students represented in the sample under study.

It is also believed that a sample size of thirty is held by many to be the minimum number of cases if researchers plan to use some form of statistical analysis on their data (Cohen, 2005). With more precision, Borg and Gall (1979; qtd in Cohen *et al*, 2005: 93) suggest that "correlational research requires a sample size of no fewer than thirty cases, that causal-comparative and experimental methodologies require a sample size of no fewer than fifteen cases".

From another angle, participants tend to drop out in longitudinal studies, and the present one is such. In this line of thought, Dörnyei (2007: 82) uses the term

'attrition' (or 'mortality') and thinks that "The usual pattern of participation in a long-term panel study is that an increasing number of participants drop out of the panel in the successive waves". This attrition may be due to unavailability or unwillingness from the part of the subjects to continue the experiment.

Taken together, the action research that the researcher led was conducted with her own students belonging to a single group comprising 32 students. However, not all the students attended all the sessions in which the selected items for the tests were introduced. Moreover, some questionnaires were disqualified because the students didn't answer all the questions. The other point is that some tests were also disqualified because the students did not seem to be cooperative and when sitting for the tests, the researcher noticed that they did not even take time to read the provided clues in the vocabulary tests, and they didn't make efforts to form sentences in the vocabulary knowledge scale, not because they couldn't do it but because they did not want to. Others dropped out in the second test. Thus, for the result to be objective, attendance in the required lectures, validity of the conducted questionnaires and tests, were a requirement. Thus, the researcher was obliged to review the number of students taken into consideration for the experiment. In fact, "the more scientific the sampling procedures, the smaller the sample size can be," (Dörnyei, 2007:99). Consequently, the final sampling was framed with only 15 students.

2.6.1. Students' Profile

The present investigation is conducted with second-year LMD students majoring at the University of Tlemcen at the English Department. After succeeding the baccalaureate examination, the students come to the university with an accumulated linguistic knowledge, and particularly a vocabulary store of 7 years of study. They are supposed to lead an everyday conversation and write an essay. However, a priori a considerable number of the students come to the university with lexical proficiency level lower than the one they are supposed to have which does not help them cope with the learning situations in the different modules. It has to be

said that these students, prior to come to the university, had fewer opportunities to practise English outside the classroom (and even in the classroom), and many of them were not aiming at studying English.

Reaching the university, and after studying a whole academic year (first year), they are supposed to become accustomed to the new life and way of learning. Meanwhile, they improve their lexical knowledge and learn new learning strategies that enable them enhance their learning and linguistic knowledge.

Studying the different modules, they view and review a large amount of vocabulary that allows them to receive the language and produce it. This also offers opportunities to enlarge their lexicon, at least to reinforce the 3,000 high frequency words. However, vocabulary attrition remains an omnipresent phenomenon noticed throughout their courses to which the concern of the study is directed.

2.6.1.1. Experimental Group

The final sample that served for the experiment comprised 15 students. Their age, at the beginning of the study, ranges between 19 and 24 years old. They have studied English, so far, for 9 years (without repeating any year); however, others have studied English for 10 years. They hold their Baccalaureate from different streams (Nature and Life Sciences, Humanities, Letters and Philosophy and Foreign Languages). They have the same educational background as they all come from government schools.

2.6.1.2. Control Group

Another second-year group served as the control group. Their participation in the study served to tally students' initial proficiency level and probe the impact of the use of vocabulary learning strategies on lexical attrition. The number of students in this group was 26. Their age ranges between 19 and 25 years old. Their accumulated years of studying English vary from 9 to 11 years. They also hold their Baccalaureate from different streams (Nature and Life Sciences, Humanities, Letters and Philosophy and Foreign Languages). They share the same educational background as they also come from government schools.

2.6.2. Teachers' Profile

The teachers in charge of second-year students are eight teachers from the English Department at the University of Tlemcen. With the exception of one teacher holding the title of 'Professor', five are reading for their 'Doctorate' and two are reading for their 'Magister'. Their teaching experience varies from 0 to 19 years. The teacher leading the case study research is reading for her 'Doctorate' and have a teaching experience of 15 years and the one teaching the control group is a 'Professor'.

2.6.2.1. Teacher's Teaching Methodology

The teachers in charge of the module agreed upon the same way of teaching discourse to the students by the introduction of written texts more than oral passages. As it has already been mentioned (see 2.5.3.), the teachers' focus is on developing students' reading strategies and skill, improve their reading comprehension and enrich their vocabulary store.

The teachers in charge of the experimental and control groups agreed on the same method of teaching and the same material, i.e. the treatment. The treatment

> refers to anything done to groups in order to measure its effects. The treatment is not a random experience which the groups might have, but a *controlled* and *intentional* experience, such as exposure to a language teaching method specially constructed for the experiment.
>
> (Seliger & Shohamy, 1989:137)

This treatment aims at measuring the impact of the use of vocabulary learning strategies, with an emphasis on memory strategies because of the age of the students. The strategies to which the students are trained are: word-guessing strategies, use of cognates, dictionary-use strategy, social strategies, the keyword method, repetition strategies, note-taking strategies and grouping. The strategies are introduced only to the experimental group.

The second aim is to measure the effects of two different ways of introducing vocabulary which are later measured by two Vocabulary Knowledge Scales (see

2.9.3.). Vocabulary is taught explicitly (see 1.8.4.1.); however, it is introduced in two different ways. It is still presented into a context but with a slight difference. Moreover, the teacher recycled the studied words twice after the first presentation. In the first method, vocabulary is introduced into isolated activities and during the presentation, the teacher uses some drawings, gestures and movements; besides, it is conducted in a relaxed and funny atmosphere particularly when practising collocation and common expressions. Accordingly, a number of vocabulary is introduced through:

- ✓ isolated sentences in which the students are required to put the words (for instance: stagger, loiter, lurk, stride, strut) in the appropriate space to have meaningful sentences,

- ✓ matching words with their collocations (such as: twiddle - your thumb, pout - your lips, clench – your fingers, and snap - your fingers),

- ✓ matching words to from common comparative expressions (for example: as fresh – as a daisy, as thin - as a rake, and as stubborn - as a mule),

- ✓ chasing the intruder (like in: fun – enjoyable – ~~friendly~~ - light-hearted, ~~dizzy~~ – worn out – tired – run-down, and stuck – confined – ~~boosted~~ – cramped).

The other method of presenting vocabulary is through texts revolving around different themes. The new words are studied in the classroom, primarily via the use of monolingual dictionaries. They are later used to answer comprehension questions and another time used in a matching exercise where they are linked with their synonyms or antonyms. The students are also asked to write sentences of their own. The other activity is to write an essay about a topic in relation to the theme tackled in the text in which most of the studied words are used. An example of such texts is provided in Appendix C.

It is worthwhile mentioning that the control group served to compare the influence of the use of VLS on attrition; and because of the unavailability of the required number of students it was not possible to probe attrition in the second and third intervals (Time 2 and Time 3, see 2.8.) with them.

2.7. Objectives of the Study

The general objective motivating the research is to find out evidence for lexical attrition in second-year university students who are still under formal instruction. A sub-objective is to uncover whether these students suffer from retrieval or complete loss of the learnt words. It is possible that the students fail to find a word (that they have already seen) for a desired meaning, or fail to find its meaning, i.e., they know the word but forget or doubt about its meaning. Still another aim behind the study is to discover the impact of a number of variables on vocabulary attrition, these are: initial proficiency level, vocabulary learning strategies, attitude and motivation, disuse, and teaching methodology. In addition, the part of speech that suffers more about attrition is also a concern of the study. The ultimate objective is to look for the type of vocabulary, productive or receptive, that undergoes more attrition.

2.8. Study Design

To look at the developmental aspect of attrition, the need to carry out such an investigation over longer periods is recognised in the field of language attrition because it can observe the development of attrition and give a clearer idea of the process via collecting data at periodic intervals. The necessity to carry out such a research rises from the failure of cross-sectional studies to provide a clear picture of the attrition process (Murtagh, 2003). In this respect, the present case study research is led over a span of time of 15 months with three intervals (Time 1, 2 and 3). With more precision, the study is a classroom action research, as one of the types of case studies (Nunan, 1992). It is worth mentioning that an action research "is conducted by or in cooperation with teachers for the purpose of gaining a better understanding of their educational environment and improving the effectiveness of their teaching" (Dörnyei, 2007: 191). In this study the researcher is herself the teacher of the sample population who undertakes her students as the participants that formed the "basis on which to build skills of observation and analysis" (Stenhouse, 1983: 21, qtd in Nunan, 1992: 77). She carries it over the three already mentioned intervals making of it a longitudinal study.

In a longitudinal research "information is gathered about the target of the research ... during a series of points in time" to serve two main purposes: "to describe the patterns of change, and to explain causal relationships" (Dörnyei, 2007: 79); contrary to a cross-sectional research which analyses a phenomenon at one particular point in time and for only one interval. To this end, a mixed method design, also called [1]triangulation, is used since quantitative and qualitative data are elicited to have the amount of information that provide knowledge of the phenomenon. Accordingly, a number of research tools are used to collect data so as to be able to gain deeper understanding. The researcher frames her work over three intervals beginning from Time 1 to Time 3. Each of these is described below.

Time 1 covers the academic year 2013-2014. During this interval, the students of the experimental and control groups sat for Vocabulary Levels Test (Schmitt *et al*., 2001) to compare their initial proficiency levels. The students of the experimental group sat for Vocabulary Knowledge Scale 1 and 2 to compare the two vocabulary teaching methodologies introduced in the treatment. Moreover, VKS 1 is introduced to the control group to check the impact of vocabulary learning strategies on attrition in the two groups. VKS 1 was introduced by the end of February 2014 and VKS 2 by the end of April 2014, two weeks after the end of the each teaching methodology as Yongqi Gu (2003) considers that delayed recall after two weeks under experimental conditions is normally referred to as 'long-term retention'; hence attrition can be measured after this period.

The students sat also for a Productive Vocabulary Levels Test (Laufer & Nation, 1995) to check their initial proficiency level productively. The other tests the students undertook, in May 2014, were Productive Vocabulary Test (PVT) and Receptive Vocabulary Test (RVT), developed by the researcher, to study students' lexical attrition of the studied productive and receptive vocabulary. Still at this time, a questionnaire (version 1) was conducted with the students to learn about their motivation and attitude, their opinion about the presented material and the teacher's methodology in introducing vocabulary, their sources of learning new lexis, the use of vocabulary learning strategies, and their opinion about the causes of forgetting the studied words.

Time 2 was set at the beginning of the academic year 2014-2015 (in October). Students were introduced again to the same PVT and RVT to study vocabulary attrition of productive and receptive vocabulary after disuse, viz. after summer vacation.

Time 3 was set at the end of the academic year (May 2015) to probe vocabulary attrition after a year of having studying it, bearing in mind that the students were still under formal instruction. Anew, the students filled in a questionnaire (version 2), to know about their motivation and attitude, their sources of learning new vocabulary, their use of vocabulary learning strategies, and their opinion about the causes of attrition of the studied lexis. Besides, an interview was conducted aiming to elucidate students' reported data from the questionnaires. The following section presents a detailed account of these instruments.

2.9. Data Elicitation Instruments

It is believed that the backbone of any research is the instruments used to collect the required data (Dörnyei, 2007). Thus, based on a mixed methods approach which requires multiple sources of collecting data, the present work is designed.   The researcher has selected these tools according to the type of information aimed for, in addition, she has aimed to the tap data from different sources.

2.9.1. Vocabulary Levels Test –VLT- (Schmitt *et al.*, 2001)

In foreign language research tests are used to collect data about subjects' knowledge in certain areas such as vocabulary, grammar and language proficiency (Seliger & Shohamy, 1989). When measuring vocabulary, researchers tend to test how large the learners' word knowledge is (breadth) and how well word knowledge is (depth), however, "vocabulary size is more often tested and can give more accepted conclusions than testing lexical knowledge" (Pignot-Shahov, 2012: 39). In the present work, Schmitt's (2001) VLT is used to measure the target students' lexical proficiency being one of the variables that may have an impact on their

vocabulary attrition. Schmitt's (2001) and Nation's (2001) tests are the widely used tests to measure English lexical size (Read, 2007).

This test has already been used by Morshedian (2008) and Alharthi (2012) to find the initial proficiency level of their participants and to correlate it with subsequent lexical attrition.

a. Objective

The main objectives behind introducing the levels test to the students under investigation are as follows:

➢ To measure students' level of receptive vocabulary to find out the impact of initial lexical proficiency on subsequent attrition of receptive vocabulary.

➢ To provide a test with a format that minimises the testees to guess the right answer.

➢ To give a valid and reliable estimation of the initial proficiency level prior to attrition contrary to other research in which the proficiency level was related to the years of study (Bahrick, 1984; Weltens, 1989) or the scores obtained during graduation (Abbasian & Khajavi, 2008).

b. Design

The original version of the test was designed by Nation in 1983 and later revised in 1990. Three other versions (Version B, C and D) were developed by Schmitt; consequently, the four versions were used internationally as an assessment tool even though they were not validated. Schmitt *et al.* (2001) provided evidence for the validity of the test and validated two of these versions; they stated that the level test "provides a profile of a learner's vocabulary, rather than a single figure estimate of overall vocabulary size" (Schmitt *et al.,* 2001: 58). The test measures receptive vocabulary and is designed over five word-frequency levels, 2,000 word level, 3,000 word level, academic word level, 5,000 word level and 10,000 word

level. It has been concluded from the already drawn validation that 30 items are considered representative of each level.

The total number of the provided words is 300; however, only 150 make the target items. Each of the aforementioned levels includes ten clusters and each cluster includes six words to be matched to three definitions or synonyms. The clusters are introduced as follows:

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

The testees are meant to put the number of the right answer in the provided gap and asked not to guess the meanings of the words they don't know. They answer as follows:

7. business   --- 6 -- part of a house
8. clock   --- 3--- animal with four legs
9. horse   --- 4--- something used for writing
10. pencil
11. shoe
12. wall

The words in each cluster are from the same part of speech and de-contextualised so that no clues to the meaning are provided. Moreover, the words are semantically distinct making the test a sensitive one which means that the format is sensitive to partial word knowledge (Read, 2000). As for the ratio, the words in each cluster are categorised as 3 nouns, 2 verbs and 1 adjective. The test is in Appendix D.

c. Procedure

The students sat for the test by the end of February 2014 to probe their proficiency level after the treatment. It was administered to the whole class but at the end only 15 students made the sample of the research. They were provided with an explanation before starting the test so that to avoid ambiguity on how to answer. The researcher didn't put a time limit for the test to make them feel at ease and not to feel in a hurry to finish it quickly. Most of them took 20 minutes. It has to be mentioned that even the students of the control group sat for the test to check whether they have the same proficiency level or not. Only this level test was conducted with the students so that they don't find the task boring and overwhelming.

2.9.2. Productive Vocabulary Levels Test -PVLT- (Laufer & Nation, 1995)

This test is the 'active version' of Vocabulary Levels Test developed by Laufer and Nation (1995). The target words were equivalent to the original Levels Test (Nation, 1983). What differs from the VLT is that the students have to complete the words in context sentences. Laufer and Nation (1999: 44) provided validity of the test and states that "The Productive Vocabulary Levels Test is a reliable, valid, and practical measure of vocabulary growth."

This test has already been used by Morshedian (2008) and Alharthi (2012) to find their participants' initial proficiency level.

a. Objective

The main objectives behind administering this test to the students under study are as follows:

➢ To evaluate students' level of productive vocabulary to uncover the effect of initial lexical proficiency on subsequent attrition of productive vocabulary.

> ➢ To have a valid estimation of the initial proficiency level prior to attrition contrary to the previously conducted research in which the proficiency level was referred to the years of study (Bahrick, 1984) or years of training (Weltens, 1989), or the scores obtained during graduation (Abbasian & Khajavi, 2008).

b. Design

The test is presented in five frequency bands, 2,000-word level, 3,000-word level, 5,000-word level, the University Word List Level and the 10,000-word level. It includes a total number of 90 words divided equally in the five bands, i.e., 18 items in each. The testees have to complete the words in context sentences to which the initial letters are provided to prevent production of a non-target words (Laufer & Nation, 1995). Here is an example:

In: He was riding a bi_____.

The students answer:

He was riding a bicycle.

The words in each level are verbs, nouns and adjectives and even word families such as '*manufactured*', a past participle, and '*spoiling*', a gerund. For more details, see Appendix E.

c. Procedure

The test was administered to the target students in May 2014 in order to evaluate their initial proficiency level of productive vocabulary prior to attrition. Again it was administered to the whole class but only 15 students ensured assiduity during the required lectures; consequently, they made the sample of the research. They were provided with clarification on how to answer before starting the test so that to avoid wrong answers. The time was not limited for the test so as to let them

feel at ease and not to feel in a hurry to finish it quickly. The average time they took was 20 minutes. The test could not be conducted with the control group because the researcher couldn't have access to the students at this period of the academic year. Consequently, only the VLT was taken into account to compare the proficiency levels of the two groups.

2.9.3. Vocabulary Knowledge Scales (VKS 1 and VKS 2)

From the approach of continuum of vocabulary learning (see 1.7.), many studies have been conducted to assess learners' lexical knowledge based on 'scales of vocabulary knowledge'. Some of these studies are those led by Joe (1994, 1995), McNeill (1996), Scarcella & Zimmerman (1997), as reported by Waring (2002). A typical example of such a test is the following:

0.   I do not know this word

1.   I have seen this word before, but do not know its meaning

2.   I have seen this word before and know its meaning a little

3.   I know this word

Being different from the bipolar *yes/no* scale, the continuum of development from *not know* to *know well* is clear in this scale showing the level of knowledge of the target words. Another type of this scale is developed by Eichholz and Barbe (1961) where word knowledge can be classified along a continuum with intermediate stages of knowledge. They are represented in what follows:

Unknown ..0..⋯.......1...⋯⋯.....2..⋯.....|⋯⋯.....3...⋯⋯.....4....⋯.....5.. Known
Threshold
of Action

0 A word at this stage is completely unknown. The individual has never seen or heard of it.

1 The individual has seen or heard the word, but has shown little if any, reaction to it.

2   The word is about to reach the threshold of action. The individual is now

  ready to act on it in some way.

3   Here the threshold of action has been crossed. The person has looked in a

  dictionary, asked about, or guessed at the meaning of the word: there has

  been an overt response to learn its meaning

4 The word has become a part of a fund of words available for use. It

  still has only a vague limited meaning and the person is able to

 define it only in a very vague way.

5 The word has become part of the individual's active vocabulary. He uses it

  with facility and has given it concrete meaning.

<div align="center">Eichholz and Barbe's test of word knowledge.</div>

<div align="center">(Adopted from Waring, 2002: 4)</div>

These tests lend themselves well to assess vocabulary knowledge because of what it can offer to learn about the learners' lexical knowledge. Proponents of such a test view that these tests of vocabulary therefore suggest that a single scale can assess

  both *breadth* (how many words) and *depth* (how well known) aspects of

  vocabulary knowledge. Proponents suggest these tests can be used for

  assessing knowledge pre and post some treatment, and that a better

  analysis of what is going on can be achieved than with a standard yes/no

  test.

<div align="center">(Adopted from Waring, 2002: 4)</div>

Thus, the advantage behind administering such a test is to gain knowledge of both the size and degree of word knowledge. And the most currently used of these scale tests is Vocabulary Knowledge Scale (VKS) first developed by Paribakht and Wesche in 1993; it aims "to distinguish stages in learners' developing knowledge of particular words" (Paribakht and Wesche, 1997: 179). The researcher used this test as a tool to measure

students attrition of the introduced lexis. Two tests have been used VKS 1 and VKS 2. A detailed explanation is provided in the following section.

a. Objective

The major aims behind the introduction of these tests to the target students are depicted separately below:

VKS 1:

➢ To know whether the students suffer from failure in retrieval or complete loss of the studied words.

➢ To assess students' vocabulary retention/attrition of the presented vocabulary by the use of the first vocabulary teaching methodology (see 2.6.2.1.)

➢ To check the impact of the use of vocabulary learning strategies on lexical attrition by comparing lexical attrition of two groups (experimental and control groups).

➢ To enable the comparison between the two teaching methodologies, i.e. from VKS 1 and VKS 2.

VKS 2:

➢ To assess students' lexical retention / attrition of the presented vocabulary by the use of the second vocabulary teaching methodology (see 2.6.2.1.).

➢ To enable the comparison between the two teaching methodologies, i.e. from VKS 1 and VKS 2.

b. Design

The test is built on a 5-point scale "combining self-report and performance items to elicit self-perceived and demonstrated knowledge of specific words in written form" (Paribakht & Wesche, 1997: 179). The self-report demonstrates word

knowledge which ranges from total unfamiliarity to total knowledge of the items passing by recognition of the words and their meanings or synonyms to grammatical accuracy when producing them in sentences. The self-report categories comprise what follows:

I.	I don't remember having seen this word before.
II.	I have seen this word before, but I don't know what it means.
III.	I have seen this word before, and I think it means .... (synonym or translation.)
IV.	I have seen this word. It means .... (synonym or translation.).
V.	I can use this word in a sentence: .... (write a sentence.)
	(If you do this section, please also do section IV)

The researcher designed the two VKS based on the presented lexis (see Appendix F). The students were asked to fill in the tables by ticking the appropriate box according to the presented self-report. It is worth noting that the scores attributed to the answers the researcher took into consideration match those established by the authors of the scale. They are elucidated as follows:

- Scores 1 and 2 for self-report categories I and II respectively.
- A score 2 for wrong answers in self-report categories III, IV and V
- A score 3 for correct synonym or translation in self-report categories III and IV.
- A score 4 for a semantically known word used in a sentence but with inaccurate grammar in self-report category V.
- A score 5 for a correct semantic and grammatical use of a word in self-report category.

c. Procedure

The tests were introduced separately in Time 1, viz. VKS 1 in February 2014 and VKS 2 in April 2014. In both tests, the researcher explained the way to proceed to provide answers in the self-report by presenting examples on the board. VKS 1 was introduced to the students under investigation (experimental group) and to the control group; whereas, VKS 2 was introduced only to the target students because of the unavailability of the students by the time of administration. The time was not limited to answer; however, it seemed that the test was boring for most of them and the researcher felt that some students were reluctant to produce sentences using the target items.

2.9.4. Receptive Vocabulary Test (RVT)

Receptive Vocabulary Test is a test used as a tool to measure students' vocabulary attrition at the three intervals of the research. It was developed by the researcher herself to match the studied words. This kind of tests has already been used by Morshedian (2008) and Alharthi (2012).

a. Objective

The main objectives motivating the administration of this test to the population under study are as follows:

- ➢ To assess students' attrition of the learnt lexis during the academic year receptively.
- ➢ To assess the attritted lexis in the three times of the study in order to observe the development of the process of attrition.
- ➢ To correlate the rate of attrition of receptive vocabulary to their initial receptive proficiency level.

b. Design

The test was developed by the researcher to suit the studied words. It was designed as the VLT (Schmitt *et al.*, 2001); however, there were no levels of words

(see 2.9.1.b). Thus, the target items were selected randomly from all the studied words and presented into clusters, and of course, all the words in each cluster belong to the same part of speech. Some of the presented words are supposed to be known by the testees; however, they were ignored by most of them such as *slippers*. All the tested words were new to them. To the target items, a definition or a synonym is provided. An example of such clusters is:

1. flood
2. hail   --- female peafowl
3. cloud   --- poor and raggedly clothed child
4. tide   --- ball of ice and snow
5. urchin
6. peahen

Thus, the students can answer by providing the right number of the word in the right gap. The scores given to the correct answer is 1 and the wrong one is 0. The total number of the tested words is 48 rated as 18 nouns, 15 adjectives and 15 verbs.

c. Procedure

The same test was introduced in the three times (Time 1, 2, 3) of the study (in May 2014, October 2014, May 2015). The students had an idea of how to proceed to the test because they had already sat before to the VLT. Nevertheless, they were given a fleeting overview. They were asked as well not to base their answers on guessing. The calculated time to finish the test was 15 minutes and the testees were not allowed to exceed it so as not to have time to squeeze their minds which may bias the results.

2.9.5. Productive Vocabulary Test (PVT)

Productive Vocabulary Test is the other test used as an instrument to probe students' productive lexical attrition at the three intervals of the research. The researcher developed it according to the studied words. Anew this kind of tests has already been used by Morshedian (2008) and Alharthi (2012) in their empirical studies.

a. Objective

The main objectives the research aims for through the introduction of this tool to the testees are cited below:

> ➢ To measure students' attrition of the learnt lexis during the academic year productively.
> ➢ To assess the attritted vocabulary in the three times of the study so as to observe the development of the attrition process.
> ➢ To correlate the rate of attrition of productive vocabulary to their initial productive proficiency level.

b. Design

The test was developed by the researcher to test the studied words. It was designed as the PVLT (Laufer & Nation, 1995); yet, the levels of words were not taken into account (see 2.9.1.b). Therefore, the target items were selected randomly from all the studied words; in addition, the selection was based on the words all the students ignored, i.e. all the words were new for them even though they are supposed to be known by them such as *maiden*.

Following Laufer and Nation's (1995) model, clues were provided to ensure response on the target words. Thus, the students were required to complete the words from the provided clues. And the provided clues were 2 or 3 letters, except for long words that 3 letters were provided; and the number of missing letters was not mentioned in the gaps. Here is an example:

1. The little boy seems as weak as a **da** ------- .(**da**isy)

The scores given to the correct answer is 1 and the wrong one is 0. Some wrong possibilities were accepted such as:

Kittin for *kitten*

Or *stagered* for *staggered.*

The rate of the tested words is 16 nouns, 10 adjectives and 24 verbs making a total number of 50 words.

c. Procedure

The same test was administered in the three times (Time 1, 2, 3) of the study (in May 2014, October 2014, May 2015). A brief explanation was provided to the students on how to deal with the test even though all of them showed understanding of how to proceed because of the already introduced VLT test. Again they were asked as well not to base their answers on guessing. The estimated time to finish the test was 15 minutes and they were not permitted to surpass it in order to avoid biased results from the additional time that may help them to squeeze their minds to retrieve the target words.

2.9.6. Student's Questionnaire

What motivates leading research is the attempt to find out answers to questions in a scientific manner. Among the widely used tools to collect the required data that gear towards the searched answers is the questionnaire. This instrument is popular in second language acquisition studies and even in language attrition studies (Bardovi-Harlig & Stringer, 2010). In fact, in most studies in language attrition, questionnaires, in addition to tests, are used to tap information from the participants, such as those conducted by Bahrick (1984), Weletns (1989), Morshedian (2008), Alharthi (2012) to cite but a few. The popularity of the use of

this tool is due to "the fact that they are relatively easy to construct, extremely versatile and uniquely capable of gathering a large amount of information quickly in a form that is readily processible" (Dörnyei, 2007: 101-2).

In the present work, two versions of a questionnaire were introduced to the students under investigation, the first one in Time 1 (May 2014) and the second in Time 3 (May 2015). Each of them served approximately the same objectives and shared approximately the same design.

Broadly speaking, the questionnaires as a source of information are used to provide background knowledge about the participants age, years of language learning; they are employed as well to tap data on phenomena that are not easily observed, such as motivation and attitude (Seliger & Shohamy, 1989) being part of the variables probed in this study. Another concern behind the use of this tool in the present study is to learn about the introduced material, strategies and teaching methodology and causes of vocabulary forgetting. They are described separately below.

i)   Students' Questionnaire (Version 1)

The significance of the questionnaire lies in the fact that it "enables the researcher to collect data in the field settings, and the data themselves are amenable to quantification" (Nunan, 1992: 143). This quantification help building the results that, in their turn, probe the validity of the suggested hypotheses. This version of the questionnaire was administered in the first interval of the experiment (Time 1). It aimed at having a base data that can help evaluation of students' opinion of the classroom input and vocabulary forgetting after a year of formal instruction (see Appendix G).

a. Objective

The main objectives behind the use of this version of the questionnaire were to learn about the students'

- ➢ Age and years of studying English.

- ➢ Motivation and attitude towards studying English.

- ➢ Opinion about the introduced material, vocabulary and their teacher's vocabulary teaching methodology.

- ➢ Exposure to the language that allows vocabulary learning.

- ➢ Use of vocabulary learning strategies.

- ➢ Opinion about the causes of vocabulary forgetting.

On the whole, by the administration of this questionnaire, the researcher aimed at knowing students' background and having an idea on the impact of the variables: motivation and attitude, vocabulary learning strategies, and teacher's teaching methodology, on lexical attrition in the first interval of the attrition period.

b. Design

The investigator opted for a structured questionnaire being described as having "high degree of explicitness" and considered "to be more efficient than open ones" (Seliger & Shohamy, 1989, 172-3). To build it up, closed questions were used to learn about the students' background; moreover, she used mainly the technique of Likert scale (Likert 1932) which "asks individuals to respond to a series of statements by indicating whether they 'strongly agree' (SA), 'agree' (A), 'are undecided' (U), 'disagree' (D), and 'strongly disagree' (SD) with each statement" (Seliger & Shohamy, 1989: 173). She tried to ensure explicitness in constructing the questions and the statements to avoid ambiguous answers. On the whole, 13 questions were included in the questionnaire divided into eight rubrics. They are detailed as follows:

Rubric 1: from question 1 to 3.

It sought information about students' background, notably, their age and their accumulated years of studying English, besides their email addresses and phone numbers to contact them in case of need.

Rubric 2: included question 4 with its 11 statements (from a. to k.) .

This question was asked to tap information about students' motivation to study English. They were asked to provide other reasons for learning English if any.

Rubric 3: comprised question 5 with its 5 statements (from a. to e.).

The question aimed at having an idea about the subjects' attitude towards English language learning.

Rubric 4: included question 6 with its alternatives from a. to f.

It sought students' opinion about the presented material and their teachers' methodology in introducing vocabulary in the Discourse Comprehension module.

Rubric 5: included question 7 with its 7 statements (from a. to g.).

It aimed to collect data about the informants' exposure to the English language that may recycle and enrich their vocabulary.

Rubric 6: included question 8 with its 4 statements (from a. to d.), question 9 with its 7 statements (from a. to g.).

It sought information about students' use of discovery and consolidation vocabulary learning strategies. The students were also asked to cite other strategies they use if any.

Rubric 7: included question 10 with its 4 statements (from a. to d.).

The question aimed to learn about the frequency of reviewing the studies lexis.

Rubric 8: included question 11 (a yes-no question), and question 12 with its 8 statements (from a. to h.).

The question looked mainly for the students' opinions about the causes behind forgetting the studied vocabulary. They were asked as well to mention other causes if they think there are any.

c. Procedure

This version of the questionnaire was administered to the students under investigation in Time 1 (May 2014). They were asked at the end of a Discourse Comprehension session to fill it in. They were introduced to the theme it revolves around and a brief explanation was presented to them. Only an English version was handed as they were all majoring in English, in addition, the statements and items were simple and clear. But few further explanations were presented to them. A questionnaire is supposed to be anonymous; however, they were asked to feel free to mention their names so that the investigator can compare the data to those obtained from the tests conducted with them. Most of the students reported their names. The time was not limited but most of them took less than 20 minutes to finish it.

ii)   Student's Questionnaire (Version 2)

The second version of the questionnaire was administered in the third interval of the experiment (Time 3). The aim behind handing it was to learn about students' motivation and attitude, use of VLS, their exposure to the language and the possible causes they think they are responsible of vocabulary attrition; all this after a year of studying the target lexis in the Discourse Comprehension module. All the collected data were compared to version 1. For details about the questionnaire see Appendix H.

a. Objective

The main objectives behind the administration of this version to the students under investigation are to:

➢ Learn again about their motivation and attitude towards studying English.
➢ Check students' recycling of the studied lexis.
➢ Tap information about their exposure to the language, hence, to vocabulary.
➢ Seek for subjects' use of vocabulary learning strategies.

➢ Have an idea about their opinion about the causes of their vocabulary forgetting.

In general, by the administration of this questionnaire, the researcher aimed at having an idea on the impact of the variables: motivation and attitude, vocabulary learning strategies on lexical attrition a year after the introduction of the strategies and the target items.

b. Design

Anew, closed questions were used in the questionnaire to know about the students' background; in addition, the technique of Likert scale dominated the questions. On the whole, ten questions were included in the questionnaire divided into seven rubrics. They are detailed as follows:

Rubric 1: comprised question 1.

It sought for students' email addresses and/or telephone numbers to contact them in case of missing information.

Rubric 2: included question 2 with its 11 statements (from a. to k.) .

The question was asked to have information about students' motivation in studying English. They were asked to cite other reasons for learning English if any.

Rubric 3: included question 3 with its 5 statements (from a. to d.).

The question sought information on the subjects' attitude towards English language learning.

Rubric 4: included question 4 with its alternatives from a. to g.

It aimed at collecting data about the subjects' exposure to the English language that may help them learn, recycle and enrich their lexical store.

Rubric 5: included question 5 with its 4 statements (from a. to d.), and question 6 with its 7 statements (from a. to g.).

It aimed to have information about students' use of discovery and consolidation vocabulary learning strategies.

Rubric 6: included question 7 with its 4 statements (from a. to d.), and question 8.

It tapped data about whether they reviewed the studied vocabulary; moreover, it sought students' opinions about whether the presented vocabulary in the Discourse Comprehension module was useful during the actual academic year or not.

Rubric 7: included question 9 (a yes-no question), and question 10 with its 8 statements (from a. to h.).

The question was asked to know about students' opinions about the causes behind forgetting the studied vocabulary.

c. Procedure

The second version of the questionnaire was administered to the informants in Time 3 (May 2015). An explanation was introduced to them about the theme it revolves around. Only an English version was handed to them and further explanations were presented to them so that to be sure that every question was clear. There was no time limit to complete the questionnaire but most of them took less than 20 minutes to finish it.

2.9.7. Students' Interview

Students' interview was the other tool used to collect data from the subjects under investigation. It is used additionally to cross-check the previously collected data, i.e. with the aim of triangulation. Interviewing is part of the social life with its

turn-taking conventions and expectations for participant roles, etiquettes, and even linguistic phrases is usually shared cultural knowledge. It is exactly because interviewing is a known communication routine that the method works so well as a versatile research instrument...

(Miller & Crabtree, 1999; qtd in Dörnyei, 2007: 134).

Accordingly, a communication is held between the interviewer and the interviewee for the sake of discussing a target phenomenon and providing a point a view in its favour. In this vein, Patton (2002: 341) points out that "We interview people to find out from them those things we cannot directly observe, we have to ask people questions about those things".

Being between the two extremes, structured and unstructured interviews, the researcher opted for a semi-structured interview which consists of "specific and defined questions determined beforehand, but at the same time it allows some elaboration in the questions and answers" (Seliger & Shohamy, 1989: 167). It was used to seek information about students' motivation and attitude, and their vocabulary learning and attrition.

a. Objective

The interview was conducted with the participants under study to serve the following purposes:

➢ To learn about the subjects' motivation and attitude.
➢ To check their awareness about the importance of vocabulary in language learning.
➢ To seek information about their opinions about the introduced themes and vocabulary in the Discourse Comprehension module.
➢ To know about their exposure to the English language from which they learn vocabulary.
➢ To have an idea about the VLS they use.

➢ To ask about the causes of vocabulary attrition.

b. Design

Semi-structured interviews are more favourable in research because of the flexibility they offer. Dowsett (1986; qtd in Nunan, 1992: 149) believes that they are "quite extraordinary –the interactions are incredibly rich and the data indicate that you can produce extraordinary evidence about life that you don't get in structured interviews or questionnaire methodology-". So for the evidence to be reached, it should be framed appropriately following some steps. Dörnyei (2007: 137) suggest some points that guide the researcher in a number of areas:

a) by ensuring that the domain is properly covered and nothing important is left out by accident;

b) by suggesting appropriate question wording;

c) by offering a list of useful probe questions to be used if needed;

d) by offering a template for the opening statement;

e) by listing some comments to bear in mind.

Moreover, the researcher made the students informed about the purpose of the interview and the theme it revolved around to get them engaged in relating their opinions and experiences (see appendix I).

c. Procedure

The interview was conducted with the subjects in Time 3 (May 2015). The reason behind the interview was explained before starting as this would "increase the motivation of the interviewee to respond openly and in detail", in addition, they were reassured on the issue of confidentiality (Dörnyei, 2007: 140). The investigator relied on note-taking and audio-recording to report the students' answers. Each one of them was interviewed individually in the classroom so that they feel at ease. The researcher used Arabic to explain the questions, and the informants used Arabic and English to answer.

2.10. Piloting the Study

Piloting the study is considered as an important part of the investigation as it offers opportunity to check correctness and suitability of the research tools. Consequently, the tests were conducted with another second year group to check the clarity of the sentences and the presented cues, and even the form of the test and the time it may take.

Likewise, the two versions of the questionnaire were administered to the same group to check as well the clarity in presenting the statements and sentences and their organisation, in addition to the required time to achieve it. The same thing was done with the interview, but just with some students.

2.11. Conclusion

The chapter depicted the ELT situation in Algeria and described in details the study design and the research instruments. Broadly speaking, language policy in Algeria passed through three phases (Benrabah, 2007a) moving from French language domination after the independence with Arabic growing steadily to a gradual imposition of Arabic in education. This arabicization policy was less assertive as there was a transition towards the free economic market; consequently, reforms at the educational level were introduced to which hostility was encountered. English was hoped to replace French after the independence as it held bitter memories, particularly, at that time; however, it seemed that it was not a success.

What makes the real situation of languages in Algeria is that Arabic is the official language, Arabic and French make the bilingual situation, and English, the language of globalisation, technology and international communication makes its first steps towards a widely used language by the Algerians. In this vein, measures were taken to promote the widespread of the language, particularly after the civil war (in the 1990s) where a large number of francophone intellectuals were exiled, and after oil prices rose and improved the economy on the macroeconomic level, and the socialist economy shifted to the market economy (Belmihoub, 2012).

Measures were taken to improve the educational system as a whole and language policy in particular with a special focus on English as the language of globalisation. Reforms touched the middle and secondary schools by the implementation of the imported Competency-Based .

Hence to cope with globalisation, higher education underwent changes resulting in the implementation of the European educational system known as the LMD system in 2004. It was until 2008 that the system was introduced at the level of English Department at the University of Tlemcen.

The chapter described the experiment with the target population. The longitudinal study was conducted over three intervals (Time 1, 2, 3). Testing the students in question started from February 2014 until May 2015. A number of tools was used to collect the required data, namely, Vocabulary Levels Test (Schmitt *et al.*, 2001), Productive Vocabulary Levels Test (Laufer & Nation, 1995), Vocabulary Knowledge Scale 1 and 2, Receptive Vocabulary Test and Productive Vocabulary Test (developed by the researcher), in addition to a questionnaire (version 1 and version 2) and an interview.

CHAPTER THREE:

DATA ANALYSIS AND INTERPRETATION OF THE MAIN RESULTS

3.1. Introduction

Being analytic in nature, this chapter presents the analysis of the data tapped from the different tools of research already described in detail in the previous chapter. The results of each interval, notably, Time 1, Time 2 and Time 3 are reported separately. Analysing and interpreting the findings allow the acceptance or rejection of the suggested hypotheses in relation to vocabulary attrition. It is obvious that language learning occurs with backsliding but learning about the factors that cause forgetting and the type of vocabulary attritted helps in fighting against it. Doing so allows both the teacher and the learner to better learning and lessen attrition. Consequently, the teacher develops in him/her new concepts and ways for teaching and promotes in the learners effective ways of learning, and the learners from their parts acquire better tools and techniques that help them enhance their learning.

3.2. Data Analysis Procedure

Reaching this phase of the investigation, it becomes needed to analyse the results of the collected data through the traced procedure. By analysing the data, reference is made to "sifting, organizing, summarizing, and synthesizing the data so as to arrive at the results and conclusions of the research" (Seliger & Shohamy, 1989: 201). This is the product that helps answering the questions initially motivating the study, and to which a planning and a design were scrupulously organized.

From another angle, it is believed that in addition to the validity of the research instruments used to collect the required data, the way data are collected and analysed is also crucial in any research. To analyse the findings, there are a variety of techniques which depend, according to Seliger and Shohamy (1989: 201) on:

- nature of the research problem,

- design chosen to investigate it,

- type of data collected.

Therefore, collecting data and analysing them are of equal importance to any investigation. To the present one, both qualitative and quantitative analyses were conducted for the sake of finding complementary results that aim to elucidate the phenomenon of lexical attrition in second-year university students at the department of English at the University of Tlemcen. Each type is considered to be appropriate to the type of the selected instrument and data; thus, for numerical data quantitative procedure is used and for non-numerical data qualitative analysis is run; moreover, each of them serves the function of developing understanding in the other. In this vein, Dörnyei (2007: 165) explains that "Qualitative and quantitative methods are used sequentially so that the results of the first method inform the development of the second". In a corroborative way, Hamzaoui (2006: 130) states that "Using more than one type of analysis is believed to provide more reliable research findings since the latter are not compressed into a single dimension of measurements". Therefore, results analysed from a mixed method, i.e. by combining the qualitative and quantitative analysis offer deeper understanding of the subject or phenomenon under study.

3.2.1. Qualitative Analysis

In qualitative research, in which qualitative data are collected via, for example, interviews, observations or diaries, the data are in the form of oral or written words, i.e. in non-numerical mode. To this, qualitative analysis needs to be used which is

the process used to reduce data obtained from qualitative research to its essentials. The process is not mechanical but rather involves skilled perceptions on the part of the researcher. The data still need to be analysed

systematically, since they must lead to results that others will accept as representative.

(Seliger & Shohamy, 1998: 210-1)

In the present work, the researcher used an interview to tap information about the target students' motivation and attitude, vocabulary learning strategies used, their sources of vocabulary learning and their opinions about the causes of vocabulary attrition. The reported results will uncover these points and paves the way to the quantitative data analysis; doing so, helps developing more explicitness to the results found numerically.

3.2.2. Quantitative Analysis

The quantitative data collected throughout the study need to be analysed using some mathematical calculations referred to as statistics. The findings are in numerical mode represented by tables, graphs and charts to make the results clearer and more explicit. The numbers represents mainly means and percentages.

In the present study, the researcher used a number of tools to elicit quantitative data, notably, Vocabulary Levels Test (Schmitt *et al*., 2001), Productive Vocabulary Levels Test (Laufer & Nation, 1995), to learn about the students' initial proficiency level prior to attrition, Receptive Vocabulary test, Productive Vocabulary Test, to know about their vocabulary attrition receptively and productively throughout the three intervals. Besides, questionnaires (versions 1 and 2) are used to seek information, anew, about their motivation and attitude, vocabulary learning and vocabulary learning strategies and sources of learning, in addition to their opinions about the causes of lexical forgetting.

3.3. Data Analysis

The data elicited throughout the investigation are analysed in this section. The researcher will start by examining results from Time 1, in which most of the findings are considered as baseline data (with the exception of VKS results) prior to attrition, then Time 2 results will be reported to uncover the impact of disuse, later, Time 3 results will be shown to check the progress of attrition after a span of an

academic year. These results are reported from the different tests, receptive and productive, in addition to the two versions of the questionnaire and the interview. Roughly speaking, the findings will demonstrate (1) whether the students under study suffer from complete loss of the studied lexis, (2) the factors having an impact on vocabulary attrition, and (3) whether productive vocabulary undergoes more attrition than receptive and (4) which part of speech is more attritted. An SPSS (Statistical Package for Social Sciences) version 17.0 was used to compute the data in addition to Microsoft Office Excell 2007.

3.3.1. Data Analysis of Time 1

Recall is made at this level about this interval which covers the academic year 2013-2014 in which the first tests were introduced, notably, VLT, PVLT, RVT, PVT, besides the questionnaire (version 1). The results elicited from the instruments used in this interval are reported below.

3.3.1.1. Vocabulary Levels Test -VLT- (Schmitt *et al.*, 2001)

This test was used to estimate students' vocabulary level receptively. It was used with both the experimental and the control groups.

The test is made up of five levels, each comprising 30 items representing that level. Beglar (2000) offered a way of calculating vocabulary size for PVLT and the same calculations are done for VLT. He explains that if a learner scores 75 % on the 2,000 word level, his/her knowledge at this level is probably 75 %, equalling 1,500 words of the first 2,000 high frequent words in English. The same principle is used for the other levels (2,000, 3,000, Academic words, 5,000 and 10,000); the sum of the results of all levels gives an approximate estimation of the total number of words that make the receptive lexicon of an English language learner.

The calculations revealed that the means of the total number of words known by the students in the experimental and control groups are **4,040** and **4,012** words

(or **40.4 %** and **40.12 %**) respectively of the total 10,000 words. This seems inadequate knowledge for university students. They are represented in the following graph:
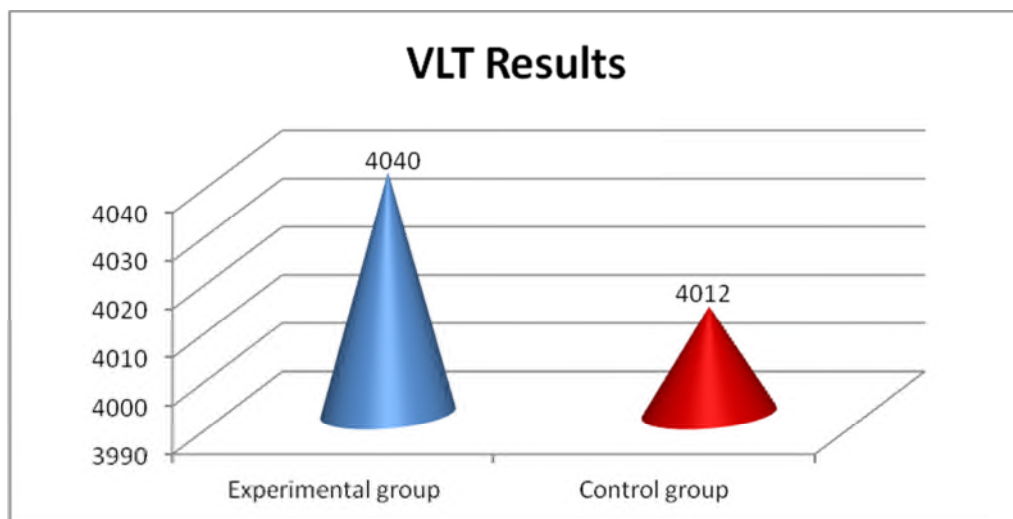
Figure 3.1.: Vocabulary Levels Test Results

A t-test was run to compare the means of the two groups. The results are reported in the following table:

	Mean	N	Std. Deviation	t	df	Sig (2-tailed)
Experimental Group	4040.13	15	923.917			
				.620	14	.545
Control Group	3776.67	26	1056.696			

Table 3.1.: VLT Results for Experimental and Control Groups

The results show a high standard deviation in the two groups but it is higher in the control group than in the experimental which means that the difference in the students' proficiency levels is higher. However, the calculated P-value (sig. =.545) is higher than α (=.05), this means that there is no significant difference between the

means of the two groups and thus the students in both groups enjoy the same proficiency level.

Still about the proficiency level, as far as the experimental group is concerned, three categories made their proficiency levels based on the VLT test scores. The students who scored equal or above 4 502 (about half the standard deviation above the mean) were characterised as High; those scoring equal or below 3 578 (about half the standard deviation lower than the mean) were categorised as Low; and those scoring between the two limits were considered as Mid as it is shown in the table below.

High (N= 5)	4 502 and above
Mid (N= 6)	Between 4 501 and 3 579
Low (N= 4)	3 578 and below

Table 3.2: Students' Receptive Proficiency Levels Categorised

The students' results are clearly visualised in the bar-graph.
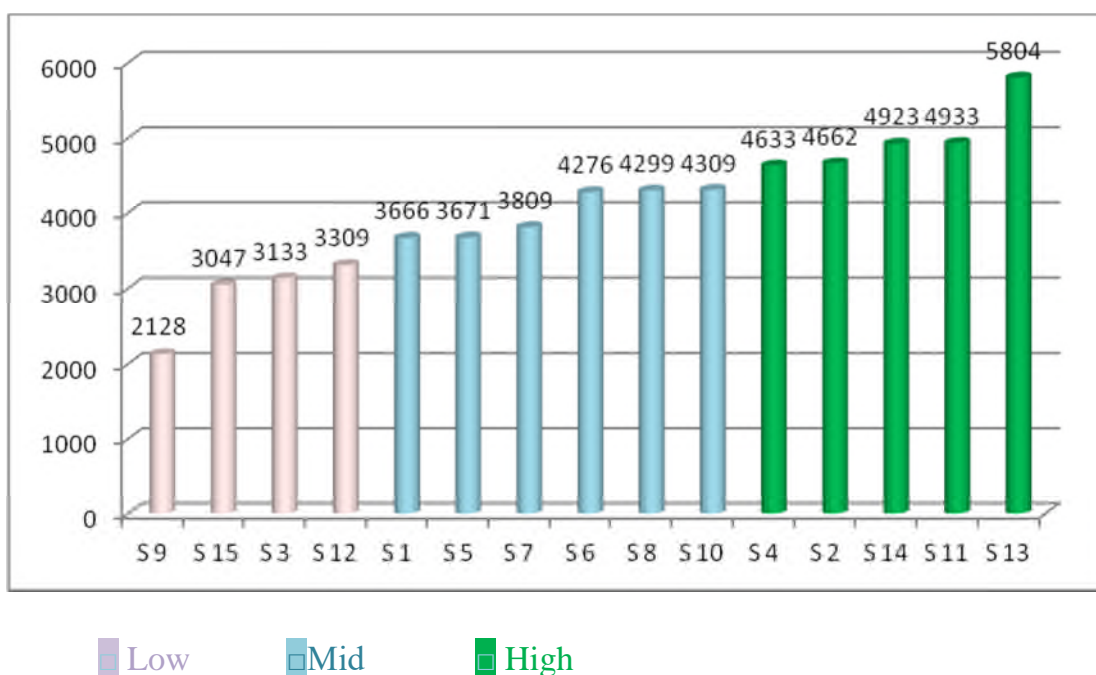
Figure 3.2.: Students' VLT Results Categorised

The results show that 4 students (out of 15) have a Low level, Student 9 (S9) reported the lowest score (2 128 words); 6 students have Mid level; and 5 have High proficiency level with the highest score of S13 (5 804 words).

3.3.1.2. Productive Vocabulary Levels Test -PVLT- (Laufer & Nation, 1995)

This was the other test used to estimate students' vocabulary level but productively. It was used just with the experimental group because of the students' attrition of the control group.

The same way was used to calculate the total number of words knowledge as in the VLT test (see 3.3.1.1.). The one-sample t-test reported that the mean of the total number of words known productively by the students under study was **3 405** words (or **34.05 %** of the 10,000 words) with a high standard deviation (Std. Deviation = 1122.279) showing that the difference in their proficiency levels is significant. The students were categorised into three proficiency levels based on the PVLT test scores. Those scoring equal or above 3 966 words (about half the standard deviation above the mean) were classified under the category High. Those scoring equal or less than 2 844 words (about half the standard deviation lower than the mean) were categorised as Low; those scoring in the interval were Mid students as it is represented in the table below.

High (N= 4)	3 966 and above
Mid (N= 7)	Between 3 965 and 2 845
Low (N= 4)	2 844 and below

Table 3.3: Students' Productive Proficiency Levels Categorised

The results are clearly represented in the figure below:

Low   Mid   High
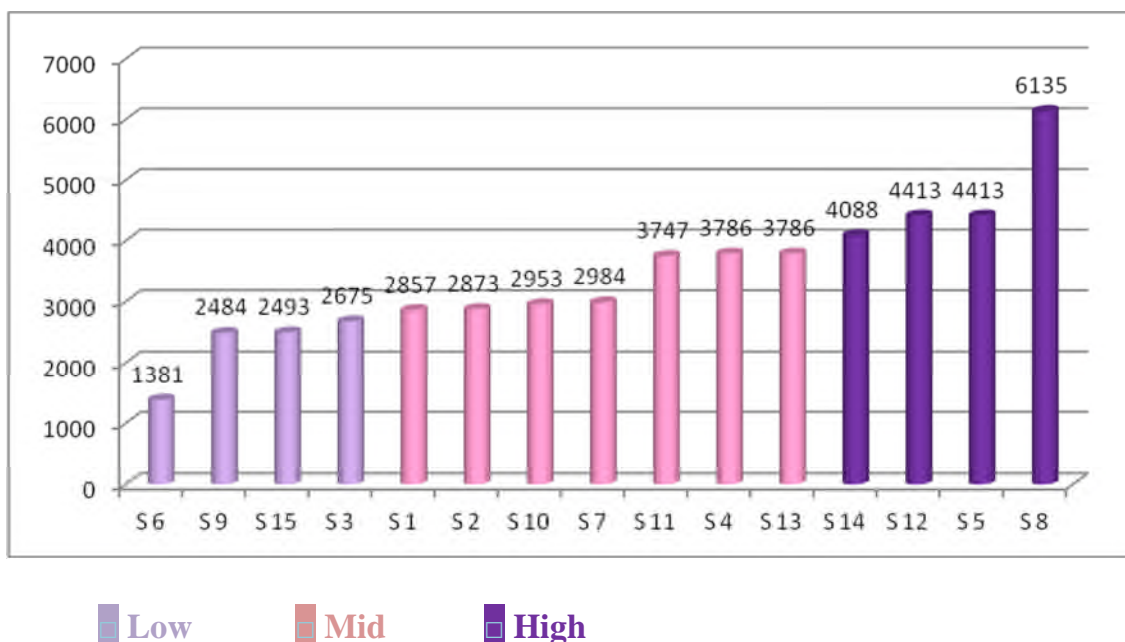
Figure 3.3.: Students' PVLT Results Categorised

The bar-graph shows that 4 students (out of 15) have lower proficiency level (scoring even 11% and 22 % at the 3 000 words level in the test); Student 6 shows a severe low level (even though she is active in the classroom and shows a great willingness to work) and again Student 9 shows a low level. Seven students have Mid level, and 4 of them have a High level; Student 8 had the highest score, 6 135 words.

There is a difference between the students' results receptively and productively. The graph below represents the scores of the receptive and productive vocabulary levels tests.
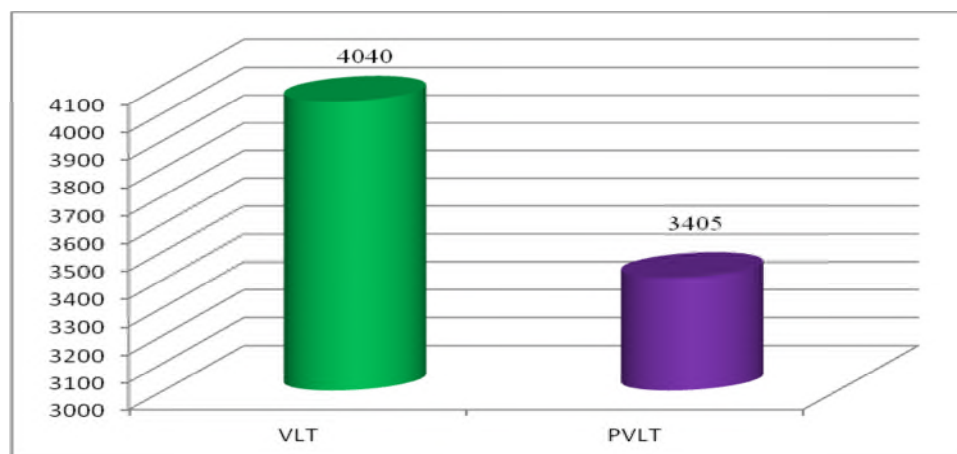
Figure 3.4.: Students' VLT and PVLT Results

As it can clearly be seen, compared with the VLT results, the PVLT shows that students' vocabulary level is higher receptively than it is productively.

3.3.1.3. Vocabulary Knowledge Scale (s) (VKS 1 and VKS 2)

Vocabulary Knowledge Scale is also a means to measure learners' vocabulary knowledge as far as the studied lexis is concerned. It was used twice in the first interval of the study.

3.3.1.3.1. Vocabulary Knowledge Scale 1

Results of the students in the experimental group varied from 38 points (the lowest score) to 89 points (the highest score) with a mean of 58.2. Whereas, students' results in the control group varied from 29 points (the lowest score) to 69 points (the highest score) with a mean of 46.6.

A t-test was run to compare the findings of the two groups. The reported results are summarised in the table below.

	Mean	N	Std. Deviation	t	df	Sig (2-tailed)
Experimental Group	58.20	15	17.176			
				2.171	14	.048
Control Group	46.60	26	11.063			

Table 3.4: VKS 1 for Experimental and Control Groups

The results showed that there was a significant difference between the two results (Sig. = .48). This clearly indicates the outperformance of the experimental group, those who were trained to use vocabulary learning strategies, over the control group.

Still with the VKS1, the researcher aimed at calculating the number of words completely lost and those which cannot be retrieved. As for the words under column I (I don't remember having seen this word. See Appendix F), 6 students (40 %) lost the word 'sterling', 7 students (46.66%) could not remember the words 'bulldoze and pace', 8 students (53.33 %) could not remember 'farthing and strut', 9 students (60 %) forgot 'rag and numbed', and 10 of them (66.66 %) lost the word 'shabby'. These words were completely lost.

Whereas the words which had been seen before but the students don't know their meanings (under column II) or they thought they know their meanings but they were wrong answers (under column III), it was thought that they failed to retrieve them. From 2 to 9 students couldn't retrieve the 20 words, viz., they couldn't retrieve the meaning. Among these 9 students (60 %) could not find 'crack and sterling', 8 students (53.33 %) could not retrieve 'urchin' and 6 students (40 %) could not find 'creep, strut, bulldoze, pace, numbed and stove'.

Thus, from these results, it can be noticed that words under column I were forgotten by more students than words under column II. Thus, it can be concluded

that the students under study suffer from loss (of more than half) of the tested words more than they suffer from failure to retrieve them.

3.3.1.3.2. Vocabulary Knowledge Scale 2

Students' results for this test varied from 125 points (the highest score for Student 4) to 28 points (the lowest score for Student 12) with a mean of 57.47 and a standard deviation of 26.605.

After comparing the two tests (VKS 1 and VKS 2), the results are reported in the table below.

	Mean	Std. Deviation	t	df	Sig (2-tailed)
VKS 1	58.20	17.176			
			.093	14	.928
VKS 2	57.47	26.605			

Table 3.5.: VKS 1 and VKS 2 Results

This is clearly visualised in the figure below:
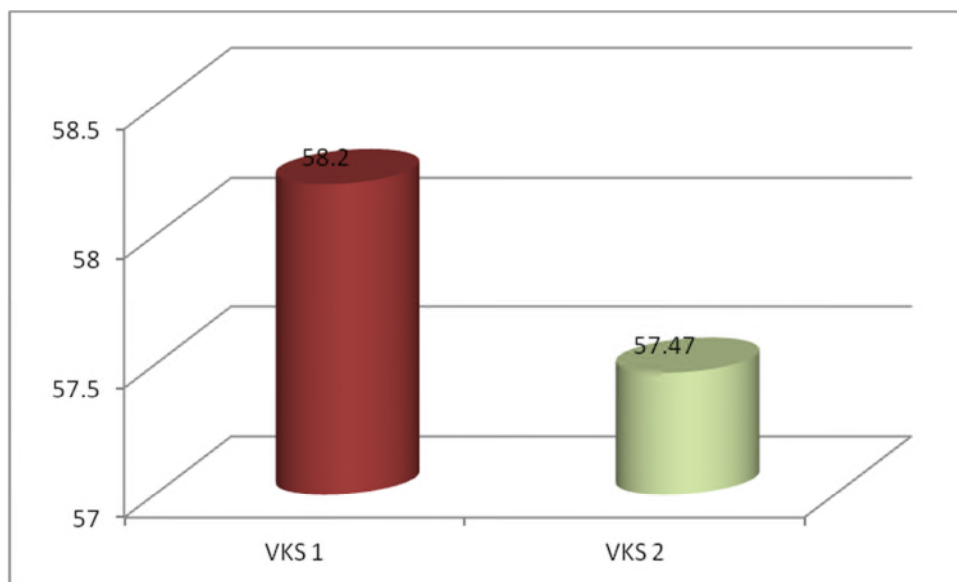
Figure 3.5.: Students' Results for VKS 1 and VKS 2

The P calculated value (sig. = .928) is higher than α (.05), this means that there was no significant difference between the two tests. And as the tests were used

to measure the effects of two different vocabulary teaching methodologies on vocabulary attrition, the respondents' results showed that these teaching methodologies gave the same results and more precisely, the amount of retention / attrition was equal whether vocabulary was taught with the first or the second teaching methodology, in the present study whether it is taught through isolated exercises or within a context, more exactly within texts.

3.3.1.4. Receptive Vocabulary Test (RVT)

This test is considered as a baseline data for attrition since this Time 1 is set as the onset of attrition and the same test (with the same content) is used in the two subsequent times. The results showed that the students did not perform well in the test; the mean of attrition equals 48.41 %. This means that they could recall just around 52 % of the tested/studied words. The standard deviation (Std. Dev. =6.77) showed that most of the students scored around the mean. The highest retention is reported by S4 with a mean of attrition of 20.83 % and the highest attrition is recorded by S3 and S6 (64.58%). Their results are clearly represented in the figure below:
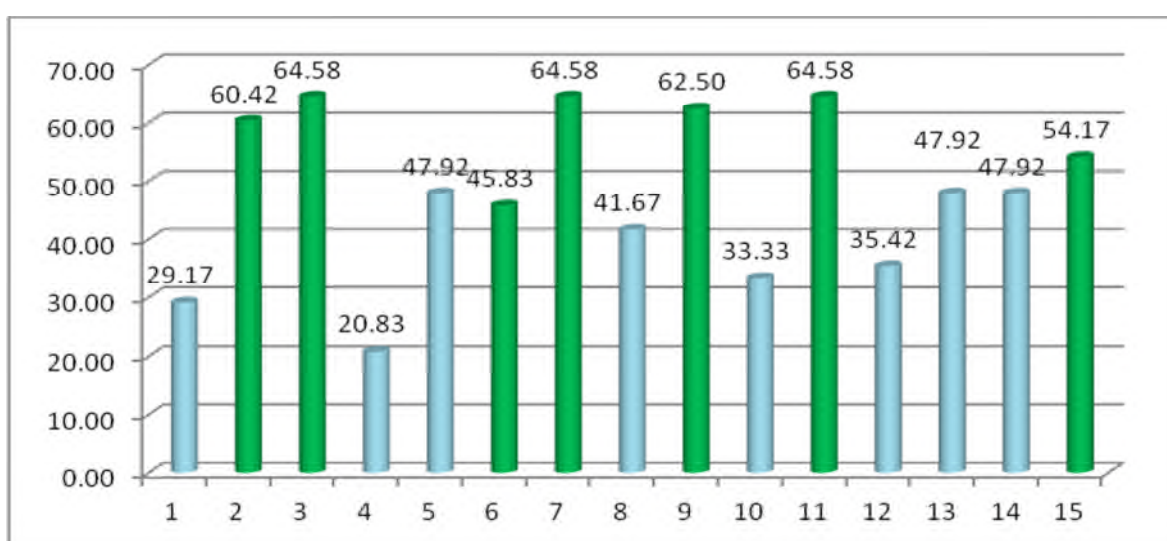
Figure 3.6.: Students' Results for RVT 1

Eight students (S1, S4, S5, S8, S10, S12, S13 and S14) scored less than the average (between 20.83 % and 47.92 %). This entails that they lost vocabulary less than the other seven students. These subjects have either High or Mid initial proficiency level receptively, with the exception of S12 Low level (see Figure 3.2.).

Additionally, the results collected from this test showed that the students lost 46.66 % of verbs (or 7 out of the 15 tested), 44.44 % nouns (or 8 from the 18) and 46.66 % of the adjectives (or 7 out of the 15 suggested). It is clear that the lost parts of speech share the same ratio, i.e. verbs, nouns and adjectives are equally forgotten receptively.

3.3.1.5. Productive Vocabulary Test (PVT)

Likewise, this test is a baseline data for vocabulary attrition process productively since this point is the onset of attrition. The students performed receptively better than they did productively. They attritted 55.47 % of the studied lexis, in other words they could remember less than the half of the words (just around 44 %). The standard deviation is quite high (= 10.17) which demonstrates that the students' results are spread farther than the mean as it is represented in the following figure:
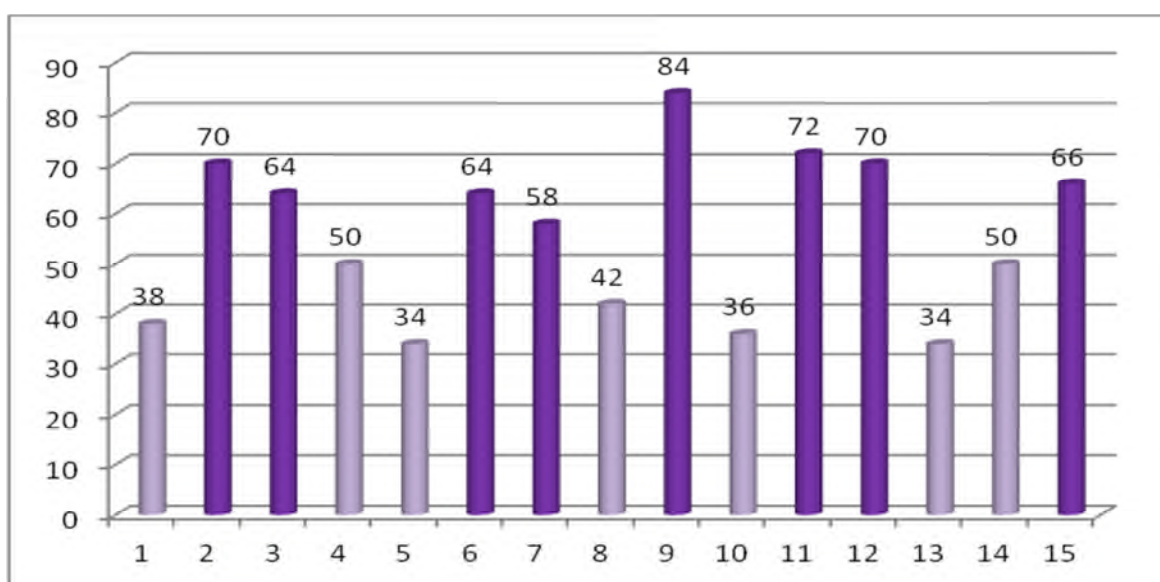
Figure 3.7.: Students' Results for PVT 1

At this time, students' good scores varied from 34 to 50 %, eight of the 15 students (S1, S4, S5, S8, S10, S13 and S14) could retain productively less than they did receptively. Having a glance at the receptive results, it could be noticed that almost the same students underwent lesser attrition whether receptively or productively; these students have again High or Mid proficiency level initially (see Figure 3.2.).

Most of the previously conducted studies reported that the learners forget receptively less than productively as corroborated by Webb (2008: 81). He explains that the learners generally score better receptively and show greater receptive than productive knowledge in the tests. This echoes what was found out in the previous studies (Abbasian & Khajavi, 2008; Alharthi, 2012; Bahrick, 1984; Cohen, 1989; Russell, 1999). The researcher thinks that the results in the receptive test could have been higher if some of the items included in the test had been practised more in the classroom such as 'vehemence, insular, fatuous, and stark'. These words were included in the studied texts and they were not part of the practised words (in the suggested activities), just an explanation was provided for these words.

As for the parts of speech mostly forgotten, the results of the productive test showed that 54.16 % verbs (or 13 out of the 24) were lost and that 62.5 % of nouns (or 10 out of 16) and 50 % adjectives (or 5 from the 10) were attritted. Therefore, nouns are more likely to be forgotten productively than verbs and adjectives.

3.3.1.6. Student's Questionnaire (version 1)

The aim behind the use of this tool was to learn about the students' background, their opinions about the introduced material in the discourse comprehension module, their motivation and attitude towards studying English to know whether they have an impact on vocabulary attrition; in addition, it tries to have an idea about their sources of learning the language, hence vocabulary learning, and about the vocabulary learning strategies they use to know about their richness and their effectiveness to vocabulary retention. Finally, it aims to tap data about their opinions about the causes of vocabulary forgetting.

Question 1: How old are you?

The age of the 15 informants ranges from 19 to 24 years old. But most of them are aged between 20 and 22 as shown in the table.

Age	19	20	21	22	23	24
Number of students	1	4	5	3	1	1

Table 3.6.: Students' Age

*Question 2***: What is your email address or phone number?**

Some students filled in the provided gap mentioning their email addresses or their phone numbers so that the researcher would be able to contact them in case of need.

*Question 3***: How many years have you been studying English?**

Almost all the students had studied English for 9 years (4 years at the middle school, 3 years at the secondary school, and 2 years at the university level). Three of them have repeated their baccalaureate exam.

*Question 4***: Why do you like studying English?**

The question is only one but 11 statements were listed below it to which the students answered on a five points Likert-scale. The ratings, then, were: strongly agree (=5), agree (=4), neutral (=3), disagree (=2), and strongly disagree (=1). The calculated means varied from one item to the other. The highest mean was 4.6 or "agree" to 3.8 or "neutral". The table below shows in details the students' reported answers.

Statements	Ratings
a. I like studying English.	4.6
b. I like studying English because it is the language of globalization.	4.47
d. I like studying English because it allows me to communicate at ease when abroad.	4.4
e. I like studying English because I plan to travel abroad where English is the language spoken.	4
f. I like studying English because I plan to work as a teacher of English.	4
f. I like studying English because I plan to work in a job where English can be used as a means of communication.	4.07
g. I like studying English because it enables me to read English books, newspapers and magazines.	3.8
h. I like studying English because it enables me to watch TV programmes and films in English.	4.13
i.I like studying English because it enables me to listen to programmes and songs in English.	4.4
j. I like studying English because it enables me to browse the internet to get information.	3.87
k. I like studying English because it enables me to chat and write email messages to speakers of English.	4.07

Table 3.7.: Students' Ratings for their Motivation to Study English

It is clear that most of the time they agreed and even many strongly agreed for all the statements with the exception of statements g. and j. . It seems that they are lazy and not willing to make efforts neither to read magazines and books in English nor to browse the net to get information as they rated 3.8 or "neutral" for these statements; but they are motivated to study English in order to write and chat with foreigners (4.07 or "agree").

Question 5: **What do you think about learning English?**

The question concerns students' attitude towards learning English. The subjects answered the five statements related to it. Likewise, they answered on a five points Likert-scale. The ratings were reported from 4.33 or "agree" to 3.2 or "neutral" as compiled in the table below.

Statements	Ratings
a. Learning English is fun.	4.33
a. I enjoy learning English.	4.07
b. English is part of my success in my future job.	3.93
c. Learning English can help me get a better job.	3.67
d. Learning English is a sign of a well-rounded person.	3.2

Table 3.8.: Students' Ratings for their Attitude towards Studying English

The students agreed that learning English is fun and that they enjoy learning it. They almost agree that English can help them to succeed in a future career (3.93). However, they seemed neutral towards the importance of the language to get a better job in the future or even to be a well-rounded person with the mastery of English. On the whole they seemed to have a positive attitude towards the language.

Question 6: **What do you think about the texts you studied and the way your teacher taught you vocabulary in the module of Discourse Comprehension?**

Students' answers for this question were rated from 3.73 or referred to "neutral" to 4.4 or "agree" as reported in the following table:

Statements	Ratings
a. The teacher provided us with texts that interested us.	3.73
b. The teacher provided us with activities that helped us understand the texts.	4.07
c. The teacher provided us with vocabulary activities that helped us understand the new words.	4.4
d. The teacher provided us with activities that helped us practise the studied words.	4.2
e. The teacher provided us with activities that helped us retain the studied words.	4.07
f. The teacher provided us with activities that helped us consolidate vocabulary previously studied	4.2

Table 3.9.: Students' Opinion about the Presented Texts and Vocabulary Teaching

It seemed that not all the students appreciated the studied texts (or themes), 11 students agreed that the texts dealt with were interesting, the others were neutral. As for the statement (b), a student disagreed that the provided activities helped them in text comprehension. Moreover, a student strongly disagreed with statement (e), he thought that the provided activities did not help them in vocabulary retention. As

regards the others, it seemed that the material was quite appreciated and that the activities to retain or consolidate the studied lexis were quite acceptable.

Question 7: **How often do you get in contact with the English language where you encounter new English words?**

This question sought for students' exposure to English, from which a deduction to the sources of vocabulary learning. Students' had to rate their answers on a five-points Likert-scale from 'never' to 'every day'. Their replies are summarised in the table below.

Statements	Ratings
a. I talk in English with my friends/classmates.	2.53
b. I read newspapers, magazine and books in English.	2.6
c. I watch TV programmes and films in English in my spare time.	4
d. I listen to music in English in my spare time.	4
e. I browse the internet in my spare time.	3.73
f. I chat with and write email messages to English language speakers in my spare time.	2.73
g. I attend classes in private institutes to improve my English	1.53

Table 3.10.: Students' Exposure to English / Vocabulary

From the students' responses, it is apparent that there is a weak exposure to the language. They watch TV programs and films in English and listen to music in English several times a week (rating 4) in their spare time. This may be due to their age as they are interested in films and music. Whereas, the other possible sources

seem to be less used. They browse the internet in their spare time just once a week (or rating 3.73).Talking in English with friends or classmates, chatting and writing email messages to English language speakers, in addition to reading newspapers, magazines and books in English seem to be less frequent as it is reported with the rating 2 (from 2.53 to 2.73) or "several times a month". As regards attending private institutes to improve their English, the rating is 1.53 referring to 'never', it is clear that most of the students don't have supplementary lectures to the ones they have at the university, with the exception of a students who attends classes 'once a week' and another one 'several times a week'.

Question 8: **What do you do to find out the meaning of a new word you encounter?**

The discovery strategies the students use to find out the meaning of a word once encountered is important in the present investigation to know about the use of the strategies and their effect on attrition. The respondents answered again on a five-points Likert-scale from 'never' to 'always'. They are represented in the bar-graph below.
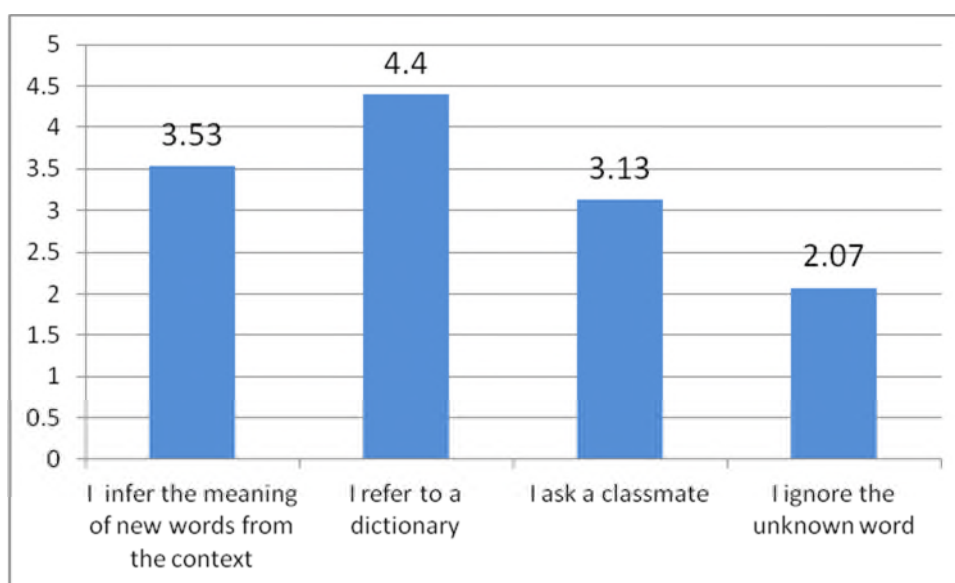
Figure 3.8.: Students' Use of Discovery Strategies

From the results, it can clearly be drawn that the mostly used strategy is 'dictionary use' with a rating of 4.4 or the frequency 'often' followed by 'inferring the meaning of new words from context' which is sometimes used. 'Asking a classmate' is also a discovery strategy which is sometimes used (3.13) while 'ignoring the unknown word' is the least used strategy, it is rarely used which means that the students are interested most of the time to find out the meanings of the words they encounter.

Question 9: **What do you do to memorize a new vocabulary item?**

The use of consolidation strategies or the strategies the subjects use to memorize the word or its meaning varied from 'never' to 'sometimes' as illustrated in the bar-graph below.
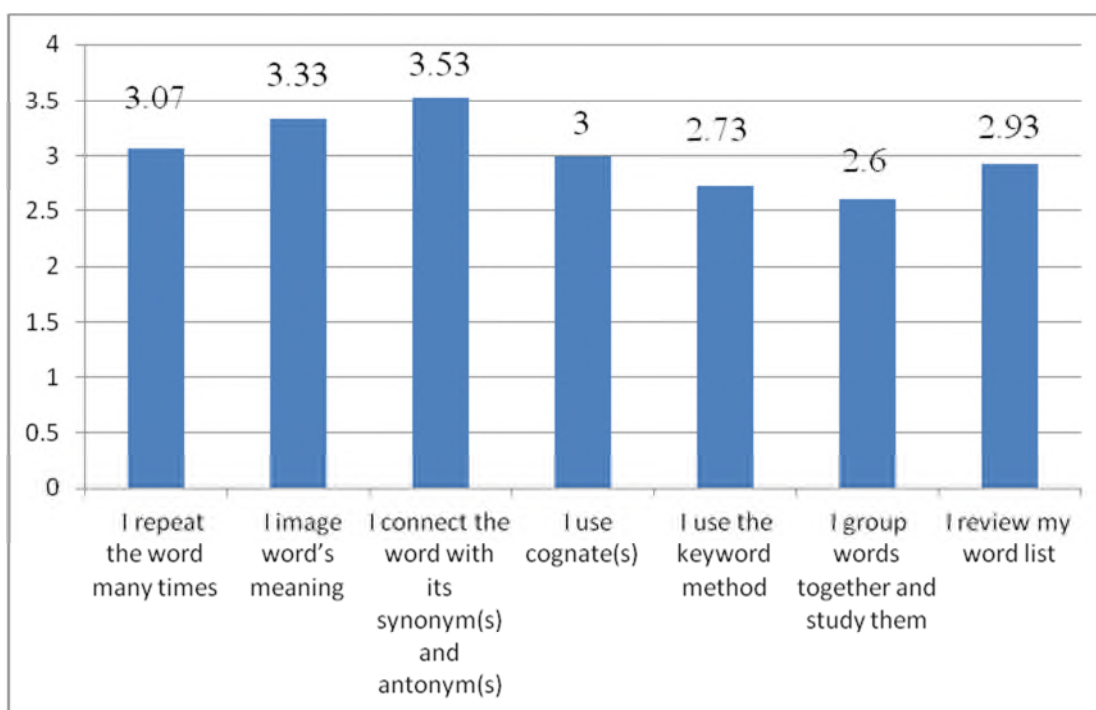
Figure 3.9.: Students' Use of Consolidation Strategies

None of the strategies is often used. The mostly used one is 'connecting the word to its synonym(s) and opposite(s)' under the frequency 'sometimes'; among

the students 8 'often' use it and 2 'always' use it. 'To image word's meaning' is also sometimes used and 'repeating the meaning of a word many times' is often used by 5 students and always used by only one student. 'The use of cognates doesn't seem to be widely used by the students even though there are similar words between English and French, only 8 students out of the 15 often use it. Similarly, it seems that the students don't review their word lists, if they initially have their lists; just 6 students often use them and 3 'sometimes' use it. Likewise, the keyword method and grouping words together are rarely used.

Question 10: **How often do you review your studied vocabulary?**

The researcher was curious to know whether the students review their studied vocabulary or not and at which frequency. The results revolved around the mean 3, i.e., 'neutral' which is somewhat confusing to interpret with the exception of one statement. The confusion lies in the fact that in being neutral or undecided, it couldn't be known whether the responses are more inclined towards 'agree' or 'disagree'. Therefore, detailed analysis of the responses by counting the number of students who agreed and those who disagreed may help the interpretation. The results are visualised in the bar-graph.
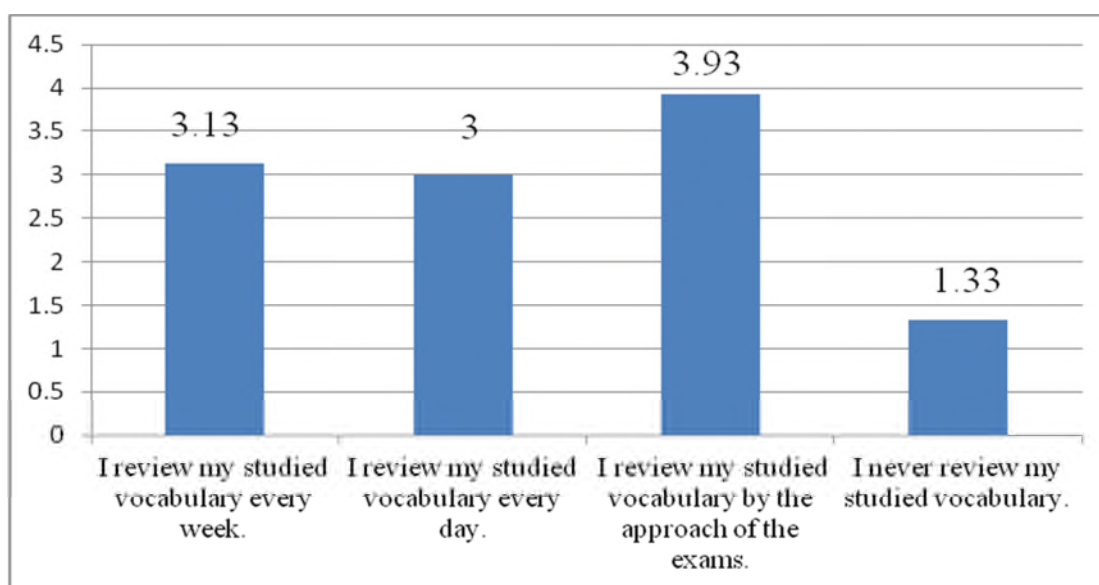
Figure 3.10.: Students' Reviewing of the Studied Vocabulary

As clearly demonstrated in the graph almost all the students agreed that they review the vocabulary they study by the approach of the exams. Just 2 students disagreed and 1 student strongly disagreed with this. This entails that only 3 subjects (or 20 % of the students) revise the studies lexis out of the period of the exams. To whether they review the studied words every week or every day, students' responses were also neutral but they seem to be more inclined towards the frequency 'every week' rather than 'every day' since 8 students agreed for 'every week' and 6 agreed for 'every day'. This means that reviewing occurs every week. Most importantly, all the students strongly disagreed with the idea of never reviewing their studied lexis. Mainly, half of the students review their studied lexis every week and almost all of them by the approach of the exams.

Question 11: **Do you forget vocabulary you studied?**

To this question, all the students affirmed that they forget vocabulary they study. Subsequently, they were asked to tell their opinions about the causes of forgetting in the following question.

Question 12: **Causes of vocabulary forgetting**

In fact, this was a statement and not a question where the informants had to mention why they thought they may have forgotten the studied lexis by selecting on a five-points Likert-scale from the suggested statements. The findings ranged from 'strongly disagree' to 'agree' (or from 1 to 4) as drawn in the bar-graph below.
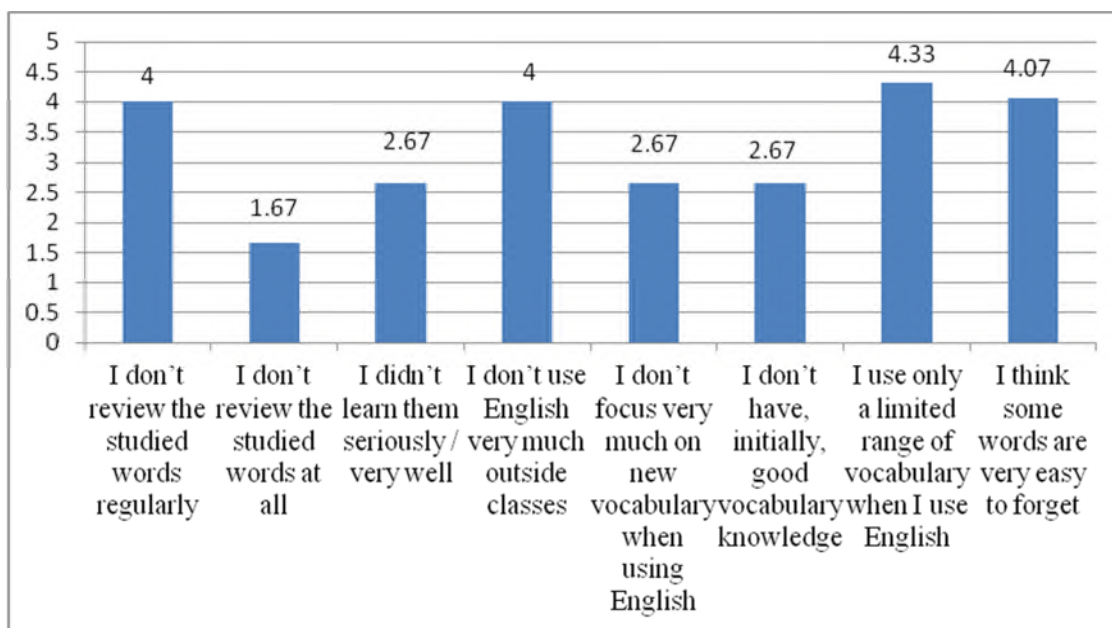
Figure 3.11.: Students' Opinions about the Causes of Vocabulary Forgetting

The students agreed that they did not review the studied words regularly; simultaneously, they strongly disagreed that they didn't review the words at all which means that they revise their vocabularies but not regularly. They also disagreed with the idea that they may have forgotten the studied lexis because they didn't learn them initially very well. Other causes of forgetting they agreed with were the lack of use of English outside the classroom setting, in addition they thought that they use a limited range of words when they use English. Moreover, the informants believed that some words are very easy to forget which means that they are very difficult to retain. To sum up, the causes of forgetting revolved around the limited use of the language and the new vocabulary, in addition to the lack of the regular review of the studied lexis.

3.3.2. Data Analysis of Time 2

After summer vacation, the tests were conducted again with the target students with the aim to check the impact of disuse on lexical attrition. The results are reported in the following section.

3.3.2.1. Receptive Vocabulary Test 2 (RVT 2)

At this time, apparently, the participants performed almost in the same way as in Time 1 with an average of attrition of 46.39 %; the standard deviation was quite high (= 9.84). This explains the fact that those who showed less attrition scored from 18.75 % to 39.58 % (S1, S4, S5, S6, S8, S12, S13, S14), whereas the others scored from 52.08 % to 87.5 %. The figure below depicts the results:
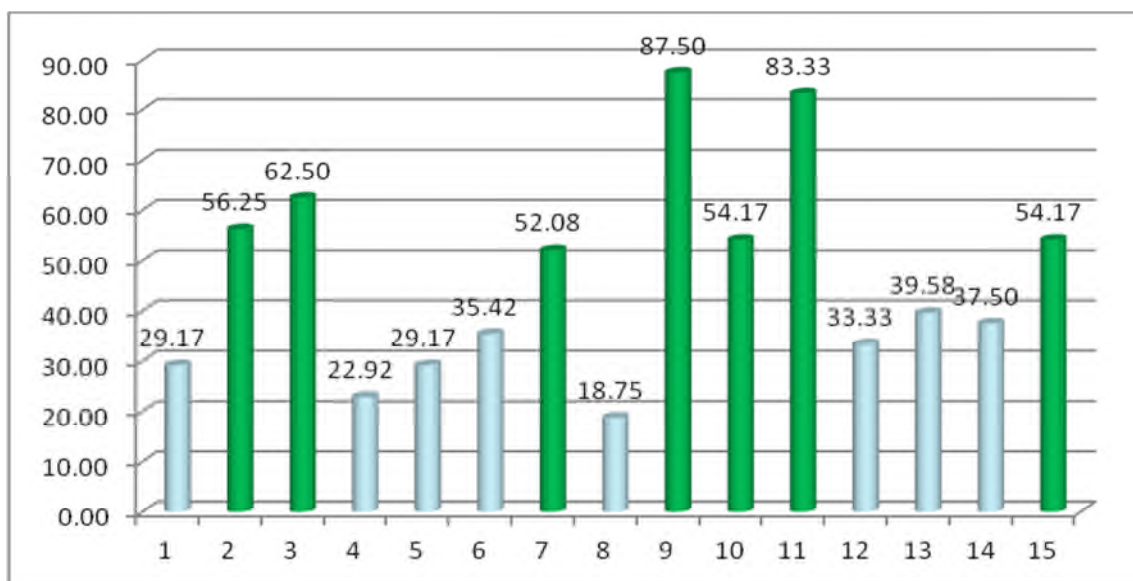
Figure 3.12.: Students' Results for RVT 2

A t-test was run to compare the means of the tests in both Time 1 and Time 2. Consequently, the results showed that there was no significant difference between the means ($t = .479$, $df = 14$, $Sig. = .639$). The respondents performed almost at the same level in both tests with a slight improvement in Time 2 test, i.e., after summer vacation. This improvement was mainly recorded by High and Mid proficient students. This is in line with Weltens's (1989) study in which he found out that his subjects improved in some tests after disuse. However, other studies tallied larger attrition after disuse such as Morshedian (2008) who investigated on nouns attrition; he reported that his students lost an amount of nouns but that the High proficient subjects attrited nouns less than his Mid and Low proficient students after summer vacation. Alharthi (2012) also noted a decline in words knowledge after formal instruction of his teacher students had ceased.

The parts of speech showing more attrition were verbs and adjectives, 46.66 % (or 7 of the 15) were lost while 33.33 % nouns (or 6 out of the 18) were forgotten. This differs from the Time 1 results where equal ratio was registered.

3.3.2.2. Productive Vocabulary Test 2 (PVT 2)

The average of the subjects' scores in this test was 57.07 % with a standard deviation of 9.22. This clearly explains the great difference in the means. Those who underwent lesser attrition scored farther than the average, from 20 % to 52 %, notably the same students (S1, S4, S5, S8, S10, S13, S14), the highest attrition was 84 % as it is shown in the bar-graph below:
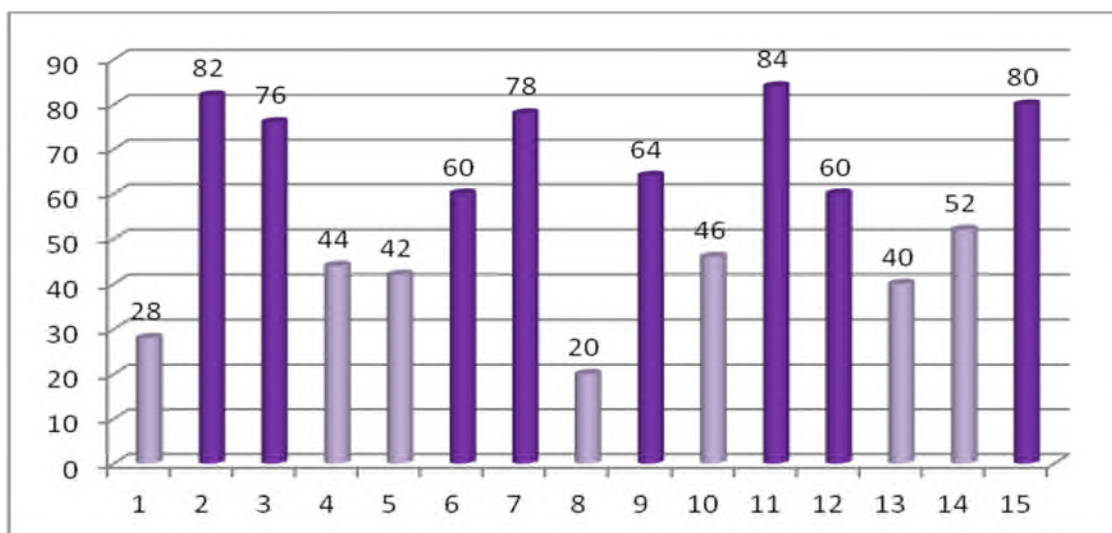
Figure 3.13.: Students' Results for PVT 2

Again a t-test was run to compare the results of Time 1 and Time 2 productively. In fact, there was no significant difference between the two tests ($t = -.486$, $df = 14$, $Sig. = .638$). The same amount of attrition was registered on most of the students, but it was noticed that some students improved from Time 1 to Time 2 such as S1 (from 38 % to 28 %) and S8 (from 42 % to 20 %), whereas others declined in their words knowledge such as S2 (from 70 % to 82 %), S3 (from 64 % to 76 %) and S15 (from 66 % to 80 %). Some students may have improved

because of the contact with the language during their holiday, mainly through watching TV programmes or listening to music in English (as reported in the questionnaires and interview). But none of them attended English private classes. Those who declined may have a limited contact with the English language. Another explanation could refer to the fact that the subjects did not receive new instruction or vocabulary knowledge which could exclude the previous knowledge from the memory as it is stated by the interference theory (see 1.7.1.).

Comparing the receptive and the productive tests of Time 2, it was found out that there was a significant difference between the two means (*Sig.* = .017). This means that the productive word knowledge was lost more than the receptive. These findings echo the previously conducted studies. They all revealed that productive vocabulary is lost more than the receptive and that it declines with time (Abbasian & Khajavi, 2008; Alharthi, 2012; Bahrick, 1984; Cohen, 1989; Russell, 1999).

Out of the 24 verbs in the test 62.5 % (or 15 out of 24) were forgotten followed by nouns 56.25 % (or 9 out of 16) and adjectives 50 % (or 5 out of 10).

3.3.3. Data Analysis of Time 3

After a year of studies, the same tests were conducted with the subjects. The aim behind is to check the attrition process. The findings are reported in what follows.

3.3.3.1. Receptive Vocabulary Test 3 (RVT 3)

From the mean obtained from the test, it seems that the students' performance equals that of the previous test (Time 2) (= 47.64 %). However, it is clear from the standard deviation (*SD* = 7.09 lesser than that of the previous time *SD* = 9.84) that most of the testees' results revolve around the mean. The students who lost less vocabulary were S1, S2, S4, S5, S7, S8, S13 and S14. And the highest attrition was reported by S9. This is visualised by the figure below:
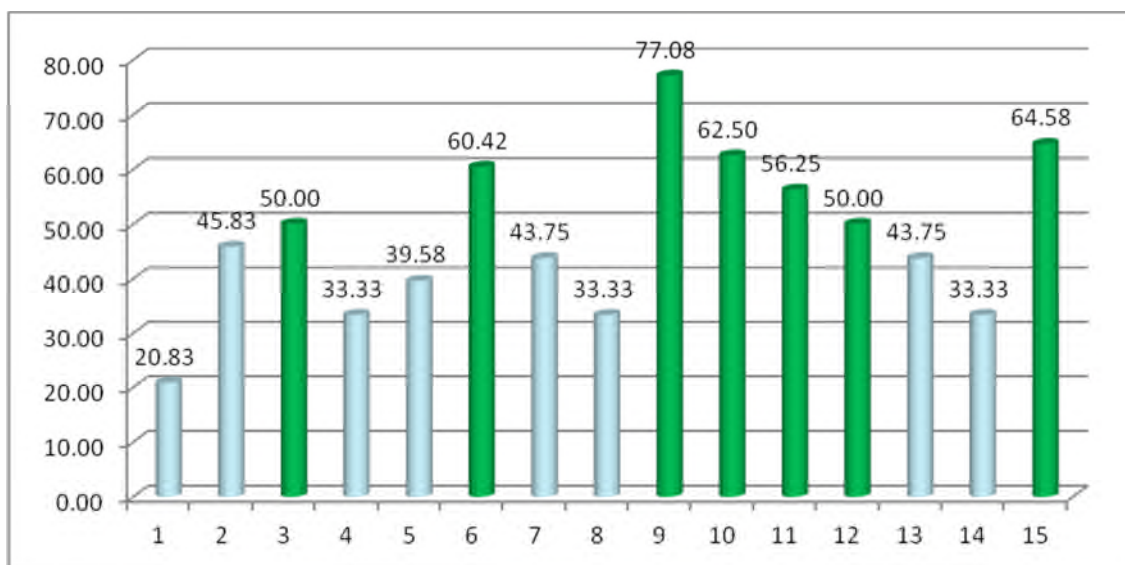
Figure 3.14.: Students' Results for RVT 3

It is clear from the results of the t-test used to compare the scores of the tests in Time 2 and Time 3 that there is no difference between the two tests (*sig.* = .736) and that, apparently, the students reached a certain stability in their receptive vocabulary knowledge. This echoes Weltens's (1989) belief that attrition sets in rather quickly and then levels off; simultaneously, it matches (part) of Ebbinghaus forgetting curve (see 1.7.1.2) representing stability in retention after a period of two days.

The tests results showed that 53.33 % of verbs (or 8 out of 15) were lost in Time 3 and that 46.66 % of adjectives (or 7 out of 15) and 44.44 % of nouns (or 8 out of 18) underwent attrition.

3.3.3.2. Productive Vocabulary Test (PVT 3)

As far as the productive test is concerned, the results showed that there was also a stability since the mean almost equals that of the previous test (57.47 %) and even the standard deviation was adjacent to Time 2 test (*SD.* = 9.22). Similarly the same students attritted less vocabulary (S1, S4, S5, S8, S10, S13, and S14). The highest attrition reached 84 % as it is shown in the bar-graph.
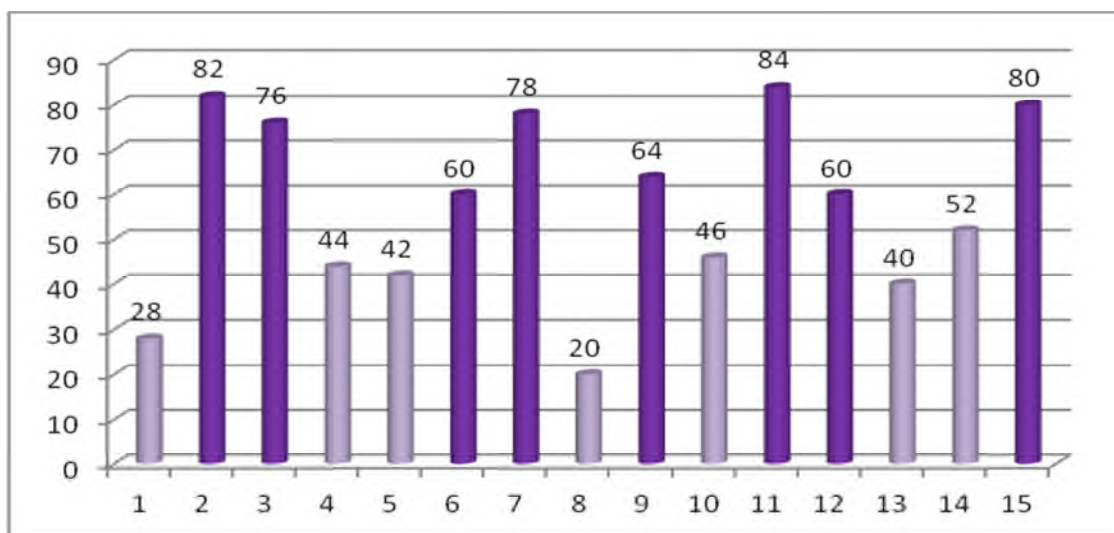
Figure 3.15.: Students' Results for PVT 3

Again, it is clear from the means of the tests (Time 2 and Time 3) that the students performed almost equally. The t-test also showed that there is no significant difference between the two tests (*sig.* = .736) and that, consequently, it can be said that the testees' receptive words knowledge stabilises after a year of having studying the words in question as corroborated by Weltens (1989) when he states that language attrition sets in and then reaches a certain stability, and it also echoes Ebbinghaus forgetting curve (see 1.7.1.2) representing stability in retention.

From the results, it was found out that 58.33 % verbs (14 from 24) were forgotten and that 56.25 % of nouns (or 9 nouns of 16) and 46.66 % (or 5 out of 10) adjectives were lost by the students.

3.3.3.3. Student's Questionnaire (Version 2)

The second version of the questionnaire comprised almost the same questions as the first one aiming to check if there was any difference in the data whether at the level of motivation and attitude or vocabulary learning strategies use, in addition to learning about their opinions about the causes of vocabulary attrition.

The collected results are reported in this section. It is worthwhile mentioning that almost all the statements responses are reported on a five-points Likert-scale.

Question 1: **Students' email addresses or phone numbers.**

In fact, this was not a question. The informants were asked to mention down their email addresses and phone numbers so that to be able to join them in case of missing information. Some provided their email addresses but the majority mentioned their phone numbers because they don't have or they don't have internet connection all the time at home.

Question 2: **Why do you learn English?**

To the eleven statements related to this question, the subjects answered on a five points Likert-scale from 'strongly agree' (5 points) to 'strongly disagree' (1 point). The calculated means varied from 4.53 or 'agree' to 3.73 or 'neutral'. The results are summarised in the table below.

Statements	Ratings
a. I like studying English.	4.53
b. I like studying English because it is the language of globalization.	4.33
c. I like studying English because it allows me to communicate at ease when abroad.	4.2
d. I like studying English because I plan to travel abroad where English is the language spoken.	3.73
e. I like studying English because I plan to work as a teacher of English.	4.33
f. I like studying English because I plan to work in a job where English can be used as a means of communication.	3.73

g. I like studying English because it enables me to read English books, newspapers and magazines.	4
h. I like studying English because it enables me to watch TV programmes and films in English.	4
i. I like studying English because it enables me to listen to programmes and songs in English.	4.07
j. I like studying English because it enables me to browse the internet to get information.	4.07
k. I like studying English because it enables me to chat and write email messages to speakers of English.	4

Table 3.11.: Students' Motivation to Study English

From the students' responses, it is clear that they are motivated to study English as the answers are mostly rated 4, this means that they agreed with almost all the statements. They like studying English because it is the language of globalisation and it enables them to communicate in English when abroad, in addition, they plan to work as teachers of English (4.33), it also facilitates the use of internet, whether to browse or to chat or write email messages. What motivates them also is the ability it offers to them to watch TV programmes and films in English and listen to songs in English. However, it seems that the subjects under study do not seem to be motivated by the idea of travelling abroad or doing a job where English is used as a means of communication. These results almost matched the previous ones (in version 1 of the questionnaire). Interestingly, they seem to be more aware that learning English allows them reading in English as the rating shifted from 3.8 or 'neutral' in version 1 to 4 or 'agree'; it can be deduced that they read more than before.

Question 3: **What do you think about learning English?**

Answering this question allows knowing about students' attitude towards English learning. The informants' responses to this question which included 5 statements varied from 'neutral' (3.20) to 'agree' (4.27). They are listed in details in the table below.

Statements	Ratings
b. Learning English is fun.	4.20
e. I enjoy learning English.	4.27
f. English is part of my success in my future job.	4.20
g. Learning English can help me get a better job.	4.20
h. Learning English is a sign of a well-rounded person.	3.20

Table 3.12.: Students' Attitude towards Studying English

Apparently, the students have a positive attitude towards studying English. They agreed that learning English is fun and that they enjoyed learning it. They believed that English is part of their success in their future job and that learning English can help them get a better job (4.20). However, they were neutral (3.20) towards the idea that English as a sign of well-rounded person makes of them important people. Broadly speaking, compared with the same question in version 1 of the questionnaire, it seems that the students' attitude towards the language improved.

Question 4: **How often do you get in contact with English where you encounter new English words?**

To know about the students' exposure to English from which they can get sources to enrich their lexical knowledge, let's have a look at the results obtained

from the collected data in the following table. The responses ranged from 'never' (1) to 'every day' (5).

Statements	Ratings
a. I talk in English with my friends/classmates.	3.27
b. I read newspapers, magazine and books in English.	2.53
c. I watch TV programmes and films in English in my spare time.	3.87
d. I listen to music in English in my spare time.	3.73
e. I browse the internet in my spare time.	4.27
f. I chat with and write email messages to English language speakers in my spare time.	2.67
g. I attend classes in private institutes to improve my English.	1.40

Table 3.13.: Students' Exposure to English / Vocabulary

The responses varied from 'several times a week' (or 4.27) to 'never' (1.40). Most of the students browse the internet in their spare time several times a week (4.27). The frequency of listening to songs in English and watching TV programmes and films in English was 3.73 and 3.87, i.e. 'once a week'. According to the responses, 4 students never listen to songs in English and 2 do not watch TV programmes in English but the rest do this several times a week or every day. The rating showed that the informants talk in English with their classmates once a week, this may be due to the responses of 3 students who never talk in English with their mates. These are less talkative and have a limited relation with their classmates. It seems also that they are not very inclined towards reading, they do it several times a month, and it remains insufficient. As regards the supplementary classes to improve their English, the rating is 1.40 which refers to 'never' with the exception of 2 students, one of them once a week and the other several times a week. Compared

with their previous responses (in version 1) they talk more in English with each other and they spend more time browsing the internet.

Question 5: **What do you do to find out the meaning of a new word you encounter?**

To know about the discovery strategies the subjects use, reference is made to the participants' reported answers; they are represented in the figure below.
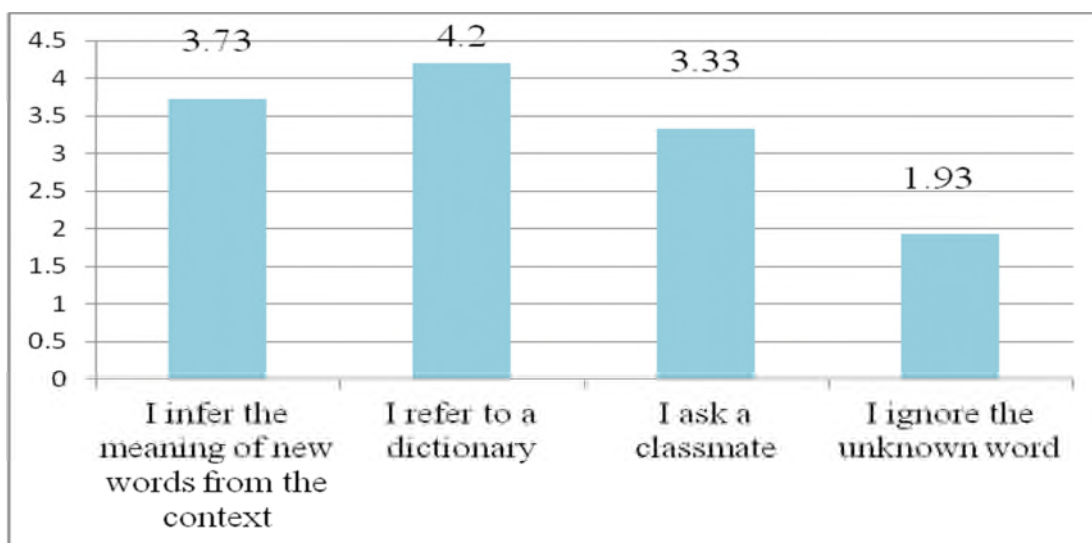
Figure 3.16.: Students' Use of Discovery Strategies

The figure clearly shows that the students never ignore the unknown words they encounter and that they refer most of the time to dictionaries (monolingual dictionaries according to what was noticed in the classroom) to find out the meaning of a word once encountered as it was rated 4.2 or 'often'. The other discovery strategies they use are inferring the meaning of new words from context and asking classmates rated 3.73 and 3.33, respectively, this means that they are 'sometimes' used. Seemingly, the same strategies were used previously (in version 1).

Question 6: **What do you do to memorize a new vocabulary item?**

To learn about the consolidation strategies the subjects use to memorize the

meaning of words, the researcher used again a Likert-scale from 'never' to 'always'. They are visualised in the figure below.
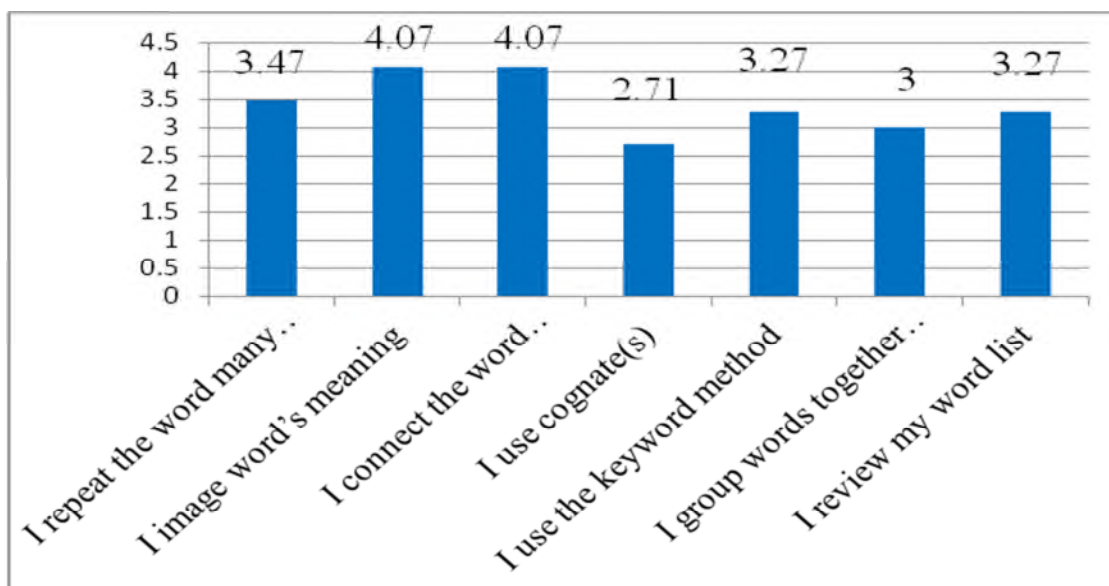
Figure 3.17.: Students' Use of Consolidation Strategies

As clearly demonstrated in the bar-graph, the mostly used strategies are 'image word's meaning' and 'connect the word to its synonym(s) and antonym(s)', they are 'often' used. These are followed by 'repetition', 'use of the keyword method' and 'grouping words together to study them' which are seldom used (rating is 3). Surprisingly, the 'use of cognate (s)' strategy is rarely used. The students can take profit from French, being the second language, but it seems, accordingly, that the students have weak lexical knowledge in French which explains the dearth of use of this strategy.

The students were asked to cite other strategies they may use, they listed what follows:

➢ I link the word with a personal experience

➢ I put the word in a sentence

➢ I relate the word to an action

Compared with the first version, more strategies are used, notably, image word's meaning', 'connect the word with its synonym(s) and antonym(s)', 'group words together and study them' and 'review my word list'. Moreover, the students suggested the already listed strategies.

Question 7: **How often do you review your studied vocabulary?**

The participants' responses to this question varied from 'strongly disagree' to 'neutral'. Again 'neutral' remains a bit difficult to interpret because it seems that the respondents are undecided in their opinions. The results are reported in the figure below.
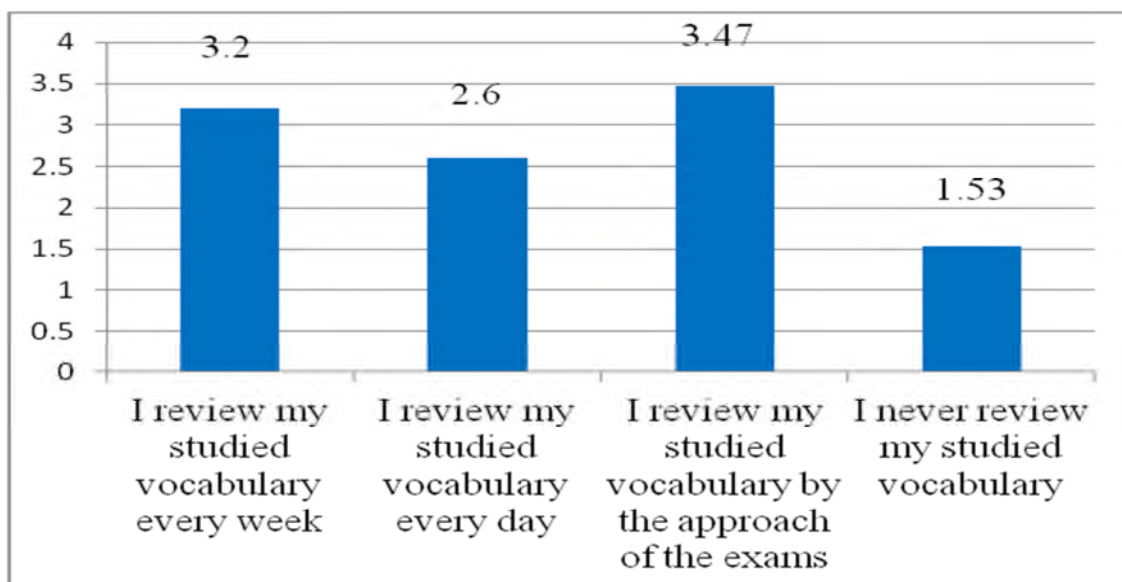
Figure 3.18.: Students' Reviewing of the Studied Vocabulary

The results showed that the students strongly disagreed with the idea that they never review their studied lexis. This means that they revise it but at different frequencies. For revising lexis by the approach of the exams, the rate was neutral. But, most of them reported that they review vocabulary by the approach of the exams (9 students, out of the 15, agreed or strongly agreed with this alternative, however, 3 were against). Likewise, they were 'neutral' towards reviewing the studied vocabulary every week. Moreover, the students do not revise their lexis every day.

Question 8: **Was the studied vocabulary in Discourse Comprehension module useful in this year's studying?**

As the researcher led an action research, she was interested to know whether or not the studied lexis in Discourse Comprehension module was useful in the following year studies. The opinions were rated from 'not at all' to 'very much' on the Likert-scale. The rating was 2.13 or 'very little'. The results are detailed in the pie-chart below.
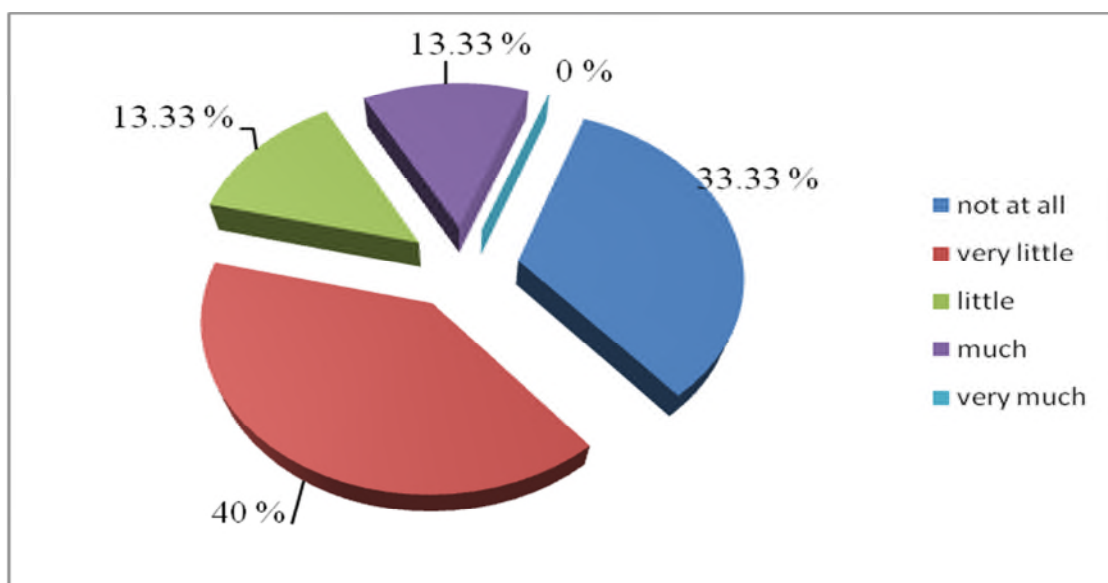
Figure 3.19.: Usefulness of the Studied Vocabulary

It is clear that the studied lexis was not so useful to the students in their studies the following year. It was 'much' useful for only 2 students (33.33 %), these followed a literary specialisation, while for the others which form the majority (13 students), it was not so. Among the students 6 (40 %) thought it was useful but 'very little' and 5 (33.33 %) did not find it useful at all. These latter followed a language studies specialisation in which they use and are in need of academic language.

Question 9: **Do you forget an amount of vocabulary you studied?**

Students' responses to this question were affirmative which clearly depicts

the fact that all of them forget part of the lexis they study and this varies from one subject to another. Subsequently, all of them responded to the following question.

Question 10: **Why do you think you may have forgotten vocabulary you studied?**

The students selected from a list of suggested causes rated from 'strongly disagree' to 'strongly agree'. Their opinions were registered and are represented in the following bar-graph.
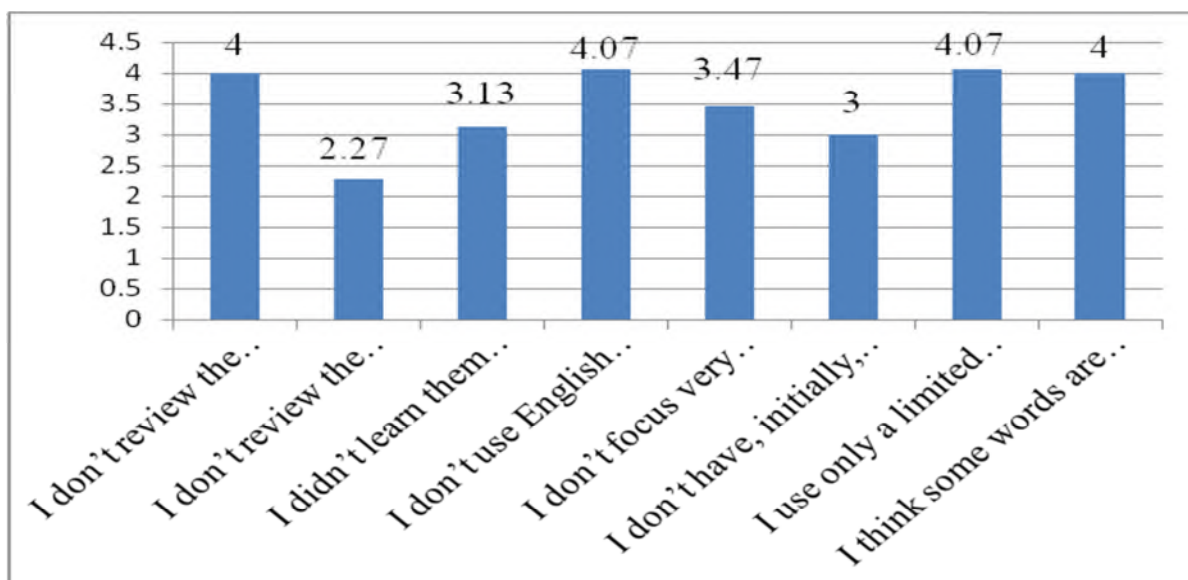
Figure 3.20.: Students' Opinions about Causes of Vocabulary
              Forgetting

The respondents believed that the major causes of their vocabulary forgetting were: the lack of reviewing vocabulary they study regularly, lack of use of English outside the classroom, limited use of vocabularies when using English, besides, they thought that some words are very easy to forget. They were against the idea of never reviewing the studied words. They were neutral in responding to three causes: inadequate learning of vocabulary, lack of focus on new vocabularies, and weak

initial vocabulary knowledge. It seems that they kept the same previous opinions stated in the first version of the questionnaire.

3.3.3.4. Students' Interview

The semi-structured interview was held with 14 students to be closer to the interviewees and tap more information about their motivation to study English and vocabulary learning and gain deeper understanding of the phenomenon of attrition in them. The students' responses (corrected and/or translated by the researcher) are cited in what follows.

Question 1: **Do you like studying English?**

Being in direct contact with the interviewees, it could be noticed that they were highly motivated to study English. They answered affirmatively stating 'of course'. It was the first choice of the majority of them, with the exception of a student who opted first for mathematics and another one for biology. It should be mentioned that they chose English even though they were following a scientific stream before reaching the university; 8 students hold scientific baccalaureate and 6 hold it from foreign languages stream. The statements of:

S1: *"Yes, of course. Studying English makes me very happy and I feel that I was born to study it."*

and

S12: *"Before starting studying at the university, I thought that we have to do just filling the gaps and answering the questions activities, but when I discovered some modules such as linguistics and civilization, I realised how interesting it was to study English."*

clearly show the great interest of the students in studying English.

Question 2: **Do you think that learning English can help you in the future? Justify please.**

The informants believed that studying English can help them in their future.

They stated that they need it whenever and wherever they travel abroad. It is also useful for a future job whether it is local or abroad. All of them want to be teachers, most of them at the middle school, some don't care whether it is at the middle or the secondary school. Here is some of what they said:

S1: *"Yes, it does. Learning English can help me in speaking with foreigners when I go to the English speaking countries, to speak good English to satisfy myself first and before anything, to teach English in the future of course and so on..."*

S14: *"I would like to teach at the middle school and be the first one to teach the pupils. I would like to use new ways of teaching not the way we were taught."*

S15: *"I would like to teach at the middle school and to be the one who gives the learners the basis of English."*

Two of the interviewees wanted to do further studies and to be university teachers and do research, they said:

S13: *"Studying English allows me to communicate at ease when abroad. In addition, I am interested in teaching at the university, so I will continue my master and doctorate studies."*

S8: *"Learning English helps me to do research and opens new horizons for me and for everyone who does this."*

From these comments, and others not cited here, it can be noticed that they are conscious of the importance of learning English as it allows them to have opportunities in teaching English or in another field where English is needed as a means of communication, besides its usefulness abroad.

Question 3: **Is vocabulary important in language learning? Justify please.**

The objective behind this question was to seek whether the students under

study was conscious about the importance of vocabulary learning, and thus, to check whether they make efforts to learn it.

The students expressed their awareness of the importance of vocabulary in any language studies and not only in English, this importance touched the four language skills. What they thought is summarised in:

- ✓ Expressing oneself and speaking fluently

- ✓ Writing about any topic they want

- ✓ Reading and interpreting written language

- ✓ Being able to understand speech in English

And to be able to do so, they stated that their lexicon should be rich so that they can use from the storage they have in any situation of communication and at least to ensure an everyday conversation. Some students said:

S1: *"Yes, it is because I think that the more my vocabulary repertoire is huge the more I can speak English spontaneously and I improve my English."*

S6: *"vocabulary is important to communicate at ease. Sometimes you have ideas but you don't have the words to express these ideas. So vocabulary can be a handicap in this case."*

Another one expressed the importance in this way:

S15: *"Of course, it is important. Vocabulary is basic in writing and speaking, and in conveying any message you want. You can say whatever you want."*

As third millennium students, they need English to chat and communicate through the net. A student said:

S10: *"I need rich vocabulary to chat on the net and to send messages via facebook."*

Many focused on its importance in writing as they have to sit for written exams and they have to score well to succeed and pass to the following year. Another student, who seemed to read a lot in his spare time, talked about the dichotomy active and passive vocabulary. He believed that:

S4: *"A learner should activate his passive vocabulary to speak fluently, and this can be done by the continuous reading from which they can learn words and by practising which helps retention."*

The omnipresence of vocabulary in any language skill makes of it an important ingredient in language learning which deserves concentration and effort to enrich it. And the interviewees seemed to be aware of this importance.

Question 4: **What do you think of the vocabulary dealt with in last year's Discourse Comprehension module? Was it useful?**

The respondents thought that the texts dealt with were interesting in which new topics were introduced. Most of them said that the vocabulary was useful, especially for everyday conversations, it was also varied and rich. It was the kind of lexis that helps them understand content of written passages and films in English. One of the students thought that it was new but difficult.

Question 5: **Was vocabulary you studied in Discourse Comprehension last year useful this academic year?**

Concerning this question, the interviewees expressed their satisfaction with the usefulness of the introduced lexis for an everyday communication. However, not all of them found it useful in this year's studies. Two of the students followed a

literary stream and took profit from the studied lexis as they reviewed many of it. One of them said:

S2: *"We could encounter many of the words we saw last year in the texts we studied this year. So it helped us lower the load of the new lexis in the new texts."*

The rest of the students followed language studies specialisation; these did not encounter the previously studied lexis in Discourse Comprehension module as they needed academic vocabulary. An interviewee said:

S8: *"That vocabulary is useful for an everyday conversation and for those who do literary studies."*

S14: *"We could encounter some of the words we studied in other modules last year such as literature and oral production, we used as well some of them in writing essays in written production module, but this year, we dealt with academic vocabulary items in linguistics and research methodology modules..."*

Therefore, it seemed that the usefulness of the studied lexis was limited to everyday communication and not very useful in academic studies.

Question 6: **How often do you review the studied vocabulary?**

The students did not seem to review the studied lexis regularly. Four of them revealed that they didn't review it at all. One of them said:

S12: *"I do not feel the need to review the words we studied; and I find it very boring."*

Some of them confessed that they rarely reviewed the lexis they studied. They said that they have so many researches to do to prepare their term papers (exposé) in the different modules that they cannot find time to revise regularly. They believed that by working this way they review and retain many vocabularies and not necessarily the ones they have already studied.

Just two of the students interviewed said that they review what they studied in their free time, approximately, once a week. One of them said that she used recreational activities available on her bilingual dictionary in her free time. She said:

S15: *"I use the games that exist in my Oxford dictionary. This allows me to avoid the humdrum and difficult time in learning and helps me enrich my vocabulary knowledge in a funny way."*

Most importantly, revising seemed to be limited to the period by the approach of the exams. Three students said that when revising their lectures they revise the notes they have already jotted down their copybooks.

Question 7: **How do you encounter/learn new vocabularies?**

The researcher aimed to know about the sources from which the students encounter new language. By getting in contact with the language, they create the opportunity to encounter new words and consequently, they can enrich their vocabulary knowledge. According to the students, they encounter new lexis by:

- ✓ Reading books, notably: novels (whether authentic or adapted) such as 'Hard Times' and 'Oliver Twist', or books in relation to the speciality such as linguistics.

- ✓ Listening to songs in English

- ✓ Watching films and TV programmes in English

- ✓ Making research on the net to prepare their term papers

- ✓ Chatting in English with foreign language speakers

Most importantly, the students get in touch with the language in things that interest them. One of them likes watching TV programmes subtitled in English. Others like reading everything that interest them not necessarily in relation to the

themes they study. Still two students are not interested in listening to songs in English, they emphasise more on reading. This is done as leisure. From one side, practising allows repeated exposure to the words, hence, learning occurs. From the other side, it seemed that learning this way lacks focus. If more focus is put, more improvement would happen. A student believed that making research allows them to enrich their vocabulary luggage and in so doing they do not forget them because they make more effort to achieve the work.

S12: *"I think that teachers should ask their students to do more research because when we make effort to do such work, we don't forget the ideas and the vocabulary we used. I still remember some new words I used in my exposé, even technical words."*

Question 8: **Which strategies do you use to learn vocabulary?**

Among the vocabulary learning strategies, the researcher introduced and put more focus on memory strategies because of the age of the students; in addition, according to the deep processing theory[2] the more effort a learner exerts the more retention results. From the interviewees' responses the strategies mostly used, whether to uncover the meaning of new words or memorize them, are:

- ✓ Dictionary use strategy

- ✓ Guessing from context

- ✓ Image word's meaning

- ✓ Linking the word to an action

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[2] The 'Depth of Processing Theory', is a theory proposed by the psychologists Craik and Lockhart (1972). Their new concept is that memory is just what happens as a result of processing information. And the more efforts a learner exerts when manipulating information, the better it is retained and remembered.

✓ Linking the word with an experience

✓ Putting the word in a sentence

✓ Linking the word to its synonym(s) or antonym(s)

✓ Use a semantic map

These are the strategies they reported using them. All these students use monolingual dictionaries in the classroom; however, it seemed that they use even bilingual dictionaries, mainly, English-Arabic as reported by this student:

S1: *"I usually use some strategies to learn vocabulary like linking words with pictures, putting words in sentences and looking for the equivalent of English words in Arabic. This latter is the most appropriate strategy for me because using it helps me in retaining words more than others."*

Three other informants use bilingual dictionaries: English-Arabic or English-French dictionaries. But they said that they refer to them when they don't understand the meaning of the words in monolingual dictionaries.

Question 9: **Could you remember the words you could not answer in the vocabulary tests you sat for after having finished the tests?**

To know whether the respondents suffer from retrieval failure or complete loss of the studied lexis, the researcher asked them whether they could remember some of the words in the vocabulary tests they sat for after having finished from answering. When being interviewed, they all reported that that was what they could remember at the moment of the test and that they could not recall them after that time. However, in other situations it can happen that they remember words but after the time they needed them. A student said:

S15: *"Yes, I can remember some of the words I forget in some situations. If I take time to squeeze my mind, I can retrieve them."*

Thus, as far as the tested vocabulary is concerned, the students suffer from complete loss of almost half of the studied lexis (according to the previously found results); whereas, in other few situations they undergo retrieval failure at the needed time. This failure can be caught up at a further moment.

Question 10: **How could you rate the amount of vocabulary you forget?**

The students know very well that they forget an amount of the vocabulary they encounter during lectures and even from their exposure to English in their free time. They all recognized that they forget a large amount of the vocabulary they study and that they retain just a bit of it. They complained about the huge number of words existing in English, and in any language, as it is incremental in nature.

Question 11: **Why do you think you forget vocabulary you studied?**

The students seemed to agree in their opinions about the causes of vocabulary forgetting. They are summarised in:

✓ Limited use of English outside the classroom setting

✓ Disuse

✓ Lack of reviewing the studied words

✓ Learnability, i.e., some words are easy to retain and others easy to forget

✓ Low-frequency of some words

✓ Large load of the studied material, so they cannot retain everything

There may be other causes of vocabulary forgetting but these were the ones they believe are the causes of their vocabulary attrition.

3.4. Discussion of Main Results

The data collected from the different research instruments, from the target teaching / learning situation, were analysed and interpreted and then now are discussed to prove the validity or rejection of the hypotheses leading the investigation.

Regarding the first hypothesis stating that second-year EFL learners suffer from retrieval failure in some cases and complete loss of the studied lexis in most cases, results from the VKS 1 and the interview reported that the learners under investigation do not retain all the studied words and most of them were lost as they were classified under the column of words they did not remember having seen before. Some revealed that they may forget a word at the required moment and that they can remember it at another time and they may also have some words by the skin of their teeth sometimes and remember them another time. But most of the time they lose them. Therefore, the first hypothesis, which assumes that EFL second-year university students undergo complete loss of the studied lexis most of the time and suffer sometimes from retrieval failure, is confirmed.

As for the second hypothesis stipulating that vocabulary attrition may be due to: the lower initial proficiency level, the inadequate use of vocabulary learning strategies, language disuse, students' motivation and attitude and the teaching methodology, data showed different results for the variables.

Students with High and Mid initial proficiency level productively underwent less attrition than Low proficient. Likewise, the participants with High and Mid initial proficiency level receptively showed less attrition than Low proficient ones. This clearly pushes the researcher to deduce that the initial proficiency, as a variable tackled in the present study, has an impact on lexical attrition. The results match those obtained by Morshedian (2008) who found out that the initial proficiency

level had a significant effect on his participants' performance in the receptive and productive vocabulary tests. Likewise, Alharthi (2014) found out that the higher the knowledge at peak attainment, the higher the attrition was experienced by his subjects, contrary to what his previous results (2012) where he concluded that the peak proficiency level was not an effective predictor of attrition.

Concerning the use of VLS, the results tapped from the vocabulary knowledge scale 1 showed that the students of the experimental group, to whom the strategies were introduced, outperformed compared with the students of the control group to whom no training on these strategies was presented. Moreover, and according to the students' responses to the questionnaire, an improvement in the use of the strategies was noticed from Time 1 to Time 3. This can be considered as a factor that could have an effect on the stability in their vocabulary attrition, bearing in mind that, with the exception of two students who followed a literary specialisation and who reviewed the already studied lexis during the following year studies, the other students did not review at all the vocabulary tackled in discourse comprehension module. Consequently, the adequate use of these strategies helps memorization and reinforces vocabulary retention. Therefore, it can be drawn that the inadequate use of vocabulary learning strategies has an impact on vocabulary attrition. Alharthi (2012) noted a change in the use of discovery and memory strategies in the three times of his study. His EFL students teachers used 'consulting a dictionary' and 'guessing' strategies in Time 1 more than they did in Time 2 and in Time 3, they used only 'guessing strategy' as it was not convenient as teachers to use a dictionary in front of their learners. Moreover, he reported that the use of memory strategies, specifically, repetition with Arabic translation was linked to a loss in receptive vocabulary.

As for language disuse for a period of summer vacation, the findings have shown that the students' lexical attrition levelled off from Time 1 to Time 2 with a very slight improvement productively (a difference of 2 %). This may imply that a period of disuse of three months does not have an impact on vocabulary attrition whether receptively or productively. Likewise, Al-hazemi (2000) found out that the

period of English disuse does not have a great effect on the amount of lexical attrition. Yet, Abbasian and khajavi (2008) found out among his literature teachers that the longer English disuse was the higher attrition was.

The other variable checked in this study was learners' attitude and motivation. From the collected responses from the questionnaires and interview, the students seem to have a high motivation and a positive attitude towards English. But even though, half of the students experienced higher rate of attrition reaching 70 and 84 % of attrition. Hence, enjoying studying English and considering it as a key to get a job and succeed in it remain inadequate as it requires putting efforts into action to practise and learn more. Consequently, as far as the target population is concerned, higher motivation (as estimated by the students themselves) and positive attitude do not have an impact on vocabulary attrition. As a rule of thumb, motivation[3] is the "catch-all term" (to use Brown's words, 2000) for success and failure in any task. Thus, the present deduction seems to be erroneous; the only explanation that could elucidate the contrast is the lower initial proficiency level of the students under study.

As regard the teaching methodology as a factor influencing on vocabulary attrition, the results from the two vocabulary knowledge scale tests with the experimental group showed that the two used teaching methodologies gave the same rate of attrition; this implies that the teaching methodologies have no impact on lexical attrition.

Therefore, taken as isolated factors, lower proficiency level and inadequate use of vocabulary learning strategies use emerged as reliable factors for lexical attrition. The remaining variables, namely, disuse over summer vacation, positive attitude and higher motivation, in addition to the vocabulary teaching methodology emerged as factors having no impact on vocabulary attrition.

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[3] Motivation is commonly defined as the inner desire, impulse, emotion or drive that pushes a person to accomplish a particular action. Keller (1983: 389, qtd in Brown, 2000) considers motivation as "the choices people make as to what experiences or goals they will approach or avoid, and the degree of effort they will exert in that respect."

Yet, as an attempt to link the variables together throughout the present study, it has been found out that there is a cause and effect relationship between three variables. It has been uncovered that High and Mid proficient learners experienced less attrition but to illustrate the fact, even though there was a student with High initial proficiency level (S2), she underwent a considerable amount of vocabulary loss. Another student (S1) with a Mid level underwent the least attrition among the whole students. And even though there was a student (S6) with high motivation (that clearly could be noticed in the classroom), she underwent a severe attrition. A point of difference between the students is the higher motivation interwoven with exerting the required efforts for success, i.e., the strong willingness to improve and succeed; the other ingredient is the richer use of vocabulary learning strategies of the second student. This means that there is an intricate relationship between these variables to act against vocabulary attrition. Hence, the second hypothesis is partly confirmed and partly infirmed.

Concerning the third hypothesis stating that productive vocabulary is more prone to be forgotten than receptive, results from vocabulary tests over the three times of the investigation revealed that the rate of attrition of the receptive tests are less than they are of the productive. This may be due to the learnability of the type of words, productive vocabulary requires more information to retain than receptive, and in addition, receptive tests provide helpful clues for correct answers. This is in line with the previously conducted studies (Alharthi, 2012; Morshedian, 2008). Consequently, the hypothesis is confirmed.

Regarding the fourth hypothesis stipulating that nouns are more likely to be forgotten, the findings uncovered that verbs and nouns received higher percentages (58.33 %) of attrition than adjectives (48.88 %) productively. However, receptively, verbs received higher percentages (48.88 %) than nouns and adjectives (40.73 % and 46.66 %, respectively). It can be concluded that verbs are more prone to be forgotten both receptively and productively than nouns and adjectives. This partly echoes Alharthi's (2012) findings revealing that both productive and receptive verbs and adjectives were more forgotten than nouns, and it is in counter line with

Cohen's (1989) findings referring to the higher attrition of productive nouns. Therefore, the last hypothesis is infirmed.

3.5. Conclusion

Being analytic in nature, the present chapter presented the analysis of the elicited data from the different research instruments used to learn about second-year students vocabulary attrition at the University of Tlemcen. The main objective was to find out the factors that may have an impact on students' lexical attrition and the type of words in addition to part of speech more prone to be forgotten. It has been found out that among the attritted lexis, there was more loss of what was studied than failure to retrieve it. Moreover, the learners' proficiency level directly linked with higher motivation and positive attitude towards the language reduced vocabulary attrition when appropriate vocabulary learning strategies were used. As for disuse over the period of summer vacation and the vocabulary teaching methodology, they did not seem to influence greatly on lexical attrition as there was a stability in the scores even before and after summer vacation. Productive vocabulary was more likely to be forgotten than receptive and verbs were more attritted than verbs and adjectives whether receptively or productively. From these findings, the following chapter will try to suggest some remedial practises that may reinforce vocabulary learning so that to wear off its attrition.

CHAPTER FOUR:

SUGGESTIONS AND PEDAGOGICAL IMPLICATIONS

4.1. Introduction

The analysis of the collected data in the previous chapter revealed a considerable amount of lexical attrition in the target students. According to the findings, students were not provided with lexis they need in their actual studies, viz. their specialisation, the thing that might have lowered the chance for the studied words to be seen again and memorized. In addition, it has been uncovered that lexical attrition raised from the inadequate use of the VLS and lack of reviewing the studied lexis, besides the paucity of exposure to the language, whether through reading, listening or communication.

So the focus of the present chapter is to provide some suggestions and pedagogical implications falling into the efficient learning of vocabulary and the better memorization. Therefore, the researcher has thought that the appropriate way to lessen vocabulary attrition lies in the efficient way of learning what is encountered. It is suggested then that (EFL) teachers make their learners acquaint the usefulness and the efficacy of VLS in vocabulary learning and train them to use them in their learning process. What is suggested also in this chapter is to provide lexis that matches both the students' deficiencies and educational needs.

Word recognition activities are also advisable to reinforce guessing the meaning of unknown words and promote learning. In creating opportunities for practising and reviewing words already encountered gives them more chance to be memorized and consequently less forgotten.

It is thought as well that inciting students to reading can provide a chance to vocabulary to be learnt incidentally as the need to understand pushes the reader to look for the meaning of new words and repeated exposure to these words can result in an unintentional memorization.

The use of technology can also be used as a means to promote and enhance language learning in general and vocabulary learning in particular. Third-millennium learners highly attached to Facebook, particularly, can use it as a tool to

learn words as the need arise to communicate besides the entertaining time it offers to them.

4.2. Students' Lexical Knowledge

Being at the university, the students are supposed to be advanced learners. At this level, the students are able to understand longer authentic texts and comprehend implicit meaning. Meanwhile, they are able to express themselves in different topics spontaneously and fluently. A flexible use of the language is intended from them for the purpose of communicating socially, academically or professionally contrary to intermediate level students who have lesser competence when involved in communication and have the ability to comprehend some authentic texts (Harmer, 1998). It should be noted here that there may be problems with labelling the levels. Even though Harmer (2001) explains that what is called advanced may be more like intermediate for a school or educational system, it would be considered that the target students are advanced learners having studied English for seven years before being at the university.

Therefore, they have accumulated a considerable amount of vocabulary. However, the results obtained from Vocabulary Levels Test, whether receptively or productively, revealed that the students under study do not have the required level (with a mean of 4,040 words receptively and 3,405 words productively with only one student surpassing the 5,000 words). There are students who scored even 13 % in the 3,000 words level, so let alone the 5,000 words level, the academic words level and the 10,000 words level which is supposed to be university level. Therefore, more attention should be paid to the students' lexical knowledge as for the size and for the accurate use of words.

In this context, literature offers a number of tools that may help EFL teachers measure their students' lexical store. Among these the ones used in the present investigation, notably, *Vocabulary Levels Test* (Schmitt *et al.*, 2001) and *Productive Vocabulary Levels Test* (Laufer & Nation, 1995). Versions A, B, C and D of these tests are all validated and either can be used for the same purpose. Nation (2001) suggests another test, namely, the *Eurocentres Vocabulary Size Test* (Meara &

Jones, 1987). These tests help the teachers to learn the extent to which their students' master the high frequency words. As for the students' skills in the use of vocabulary they know, the *Lexical Frequency Profile* of their writing (by Laufer & Nation, 1995) help teachers to test their vocabulary use in writing, their reading skill graded according to vocabulary level, in addition to dictation test and communicative speaking tasks (Nation, 2001).

Bearing in mind that the students have goals behind their learning, it would be wiser to make a needs analysis. Moreover, knowing about the students' lexical store and their competence in its use allows the teacher focus on their needs and introduce vocabulary in his course accordingly.

4.3. Students' Needs Analysis

Teachers strive hard to introduce material that is aimed to be useful and interesting to their learners. The task would be less effective without caring about their needs. Students' needs arise from their lacks, necessities and wants. From this context, Nation (2001) suggests different types of needs and the tools that can be used to investigate these needs. They are clearly listed in the table below.

Type of need	Needs Analysis Tool
Lacks	
• What vocabulary do they know? • What strategies can they use?	• Vocabulary knowledge: a vocabulary size test • Vocabulary use: Lexical Frequency Profile, levels dictation • Strategy knowledge: knowledge test • Strategy use: observation of performance
Necessities	
• What vocabulary do they need? • What strategies do they need?	• Interview or questionnaire to determine language use goals • Refer to studies of vocabulary size and coverage
Wants	
• What vocabulary do they want to learn?	• Use class discussion, an interview or questionnaire to determine areas of interests

Table 4.1.: Vocabulary Needs Analysis (Adopted from Nation, 2001:381-2)

Learning about the students lacks (by testing for example their initial proficiency level) offers an overview of their necessities (the vocabulary they need to learn), and knowing about their plans helps to target the adequate lexis they want to learn. To illustrate, when the teacher, for instance, learns about his students' objectives behind studying and their plans, he can provide material accordingly. For example, Chinese students learning Arabic for the purpose of communicating would not be interested in a deeper knowledge of grammar. They will be more inclined towards learning the speaking skill and focusing on words and expressions that satisfy their commercial, political, or touristic plans and/or interests. As for the target EFL students (the sample population of the present study), many of them

scored low in the 2,000 words level (the high-frequency words) and even in the 3,000 words level (the required level to start reading authentic texts). Then, it is preferable that the teacher, in this case, focuses on learning these words which should have been learnt before the second-year university level so that they can ensure an everyday communication and an understanding of authentic texts. This can be done through introducing some of them in the course and mainly by making the students aware of their importance in the basic knowledge of the language and urging them to study these words individually as time is not enough to cover them all in the classroom. In addition, most of the students aimed at specializing in language studies rather than literary studies. So, an additional focus on academic vocabulary (see Nation, 2001) would be fruitful because what is introduced in the second year has an opportunity to be encountered the third year and thus it has more chance to be retained as it was the case with the literature specialized students who reviewed the already introduced lexis in the second year (see 3.3.3.4. Question 5).

It is worthwhile mentioning that learning any vocabulary wouldn't be a loss of time. But learning the needful vocabulary has a better chance to be reviewed and used, thus, memorized and mastered and consequently less attritted. As the arena of learning vocabulary in the present study is Discourse Comprehension module (see 2.5.3.), more inclined towards reading, it is thought that enhancing reading would be profitable for vocabulary learning.

4.4. Promoting Reading

Even though reading can be a source to enhance vocabulary knowledge, it is considered to be a source of incidental vocabulary learning which offers a small amount of learning; it can improve provided that numerous repeated exposures from a great deal of reading occur (Nation, 2001; Schmitt, 2000).

As for the reading material to be introduced to the learners, it is crucial that they "suit the various goals of learning vocabulary through reading, developing fluency in reading, reading with adequate comprehension and reading for pleasure"

(Nation, 2001:148) whether this reading is intensive or extensive. Intensive reading has the objective of understanding short texts (around 300-500 words length) where close attention is directed to the vocabulary, grammar and discourse of the text. Whereas, extensive reading aims at focusing on the meaning of the text without involving additional language use. The former can be used in the classroom and the teacher selects the lexis he wants to introduce to his students and focus on, according to the need, so that the deliberate study of the texts results in vocabulary gains and growth. The latter can be an assignment given by the teacher but it is mainly used by the students outside the classroom setting as it requires more time. In this case, selecting texts according to their needs and, mainly, their interests would be very fruitful and could result in better retention of the encountered lexis; therefore, the learnt words would undergo less attrition.

As university students (the concern of the present study) with a lexical store exceeding the 3,000 words, they have the ability to understand a large number of words on a written page and guess the meaning of the remaining words (Schmitt, 2000). The thing that helps inferencing the meaning of the unknown words in a context. What can help successful guessing of the encountered words are additional kinds of knowledge to the linguistic, notably, world and strategic knowledge (Nagy, 1997). Linguistically, it is evident that a large size of words knowledge is a prerequisite for successful guessing. Moreover, having world knowledge which is a prior knowledge of the topic makes learning new words for known concepts easier. As for the strategic knowledge, it "involves conscious knowledge over cognitive resources" (Nagy, 1997: 81); if the learners are taught how to guess, they may become better guessers.

Above all this, it does not matter how much vocabulary growth is uptaken but how well it is retained for a longer period so that it is less attritted. Then, if the amount of vocabulary learnt from reading, be it extensive or intensive, "is not soon reinforced by another meeting, then that learning can be lost" (Nation, 2001: 155). Paribakht and Wesche (1997) found out that reading comprehension along with

vocabulary enhancement activities gives better results than reading comprehension alone.

4.5. Vocabulary Activities with Reading Texts

On the premise of Paribakht and Wesche's (1997) findings, reading comprehension sessions accompanied by vocabulary activities aid vocabulary learning. They believe that if systematic development of L2 vocabulary is desired, it cannot be left to the students themselves, they should be guided for more beneficial reading exposure. Then, the role of the teacher in this case is to provide students with activities that urge them to use the target lexis. The same authors (1997: 183-4) offer a classification of exercises, approved by Nation (2001), which can be introduced along with reading texts. The classification of these activities is related to the conditions under which learning might occur. There are five categories in the classification, notably, selective attention, recognition, manipulation, interpretation, production. They are presented in what follows.

a. Selective attention

Activities of this category draw learners' attention to the target words mainly to make them notice them. Different techniques can be used to highlight the words such as: boldfacing, italicizing, circling, underlying, colouring, glossing or any visual signalling in the reading passage.

Another way to draw the students' attention is to provide them with a list of the target words in the beginning of the text and ask them to read and notice (and underline) them in the text.

b. Recognition

Exercises calling for word recognition provide all the necessary elements and all what the learners have to do is to recognize the target words and their meanings where they use just the receptive knowledge of the words. Examples of these exercises include:

✓ Matching the target word with a definition or synonym (usually more definitions or synonyms than words are provided).

   ✓ Recognizing the meaning of the target word from a multiple choice of meanings.

   ✓ Choosing the correct picture after seeing or hearing the target word.

   ✓ Choosing the right word to label a picture.

   ✓ Seeing or hearing the target word in the L2 and giving its equivalent in L1.

c. Manipulation

In exercises of this category, the learners rearrange and organize given elements to make words or phrases, drawing on students' knowledge of morphology and grammatical categories. For instance,

   ✓ Giving derivations of words (i.e. changing the grammatical category of the target word, such as from noun to adjective, or from verb to noun).

   ✓ Using stems and affixes to construct words.

d. Interpretation

Interpretation involves analysis of meanings of words with respect to other words in given contexts (i.e. collocations, synonyms, and antonyms). For example:

   ✓ Classifying words according to their discourse functions (e.g., discourse connectives classified by types –cause and effect, contrast, addition).

   ✓ Finding the odd word in a series of collocationally related words.

   ✓ Understanding the meanings and grammatical functions of the target word in the text (i.e. in a given context) and recognizing words or phrases that could be substituted in the text.

   ✓ Multiple-choice cloze exercises.

   ✓ Guessing the meaning of target words in context.

e. Production

In such exercises, the learners are required to produce the target word in appropriate contexts. For example:

- ✓ Open cloze exercises.
- ✓ Labelling pictures.
- ✓ Answering a question requiring the target word.
- ✓ Seeing or hearing the L1 equivalent or an L2 synonym and providing the target word.
- ✓ Finding the mistake in idiom use in a sentence and correcting it.

What has been noticed by the same authors through the analysis of vocabulary exercises type in textbooks is that most of the written exercises which are text-based are of the interpretation type. The role of the teacher then is to select the most appropriate to the learners and the ones that are noticed to receive better attention and appreciation and from which gain vocabulary knowledge by the students; meanwhile, variation in type of exercises is also appraised from time to time as it adds a spice of novelty in teaching.

4.6. Vocabulary Teaching

Due to its importance in comprehension and interpretation, a heavy concentration on vocabulary teaching is a prerequisite for later proficiency in the language (Harmer, 2001). Teachers strive hard to find the best ways to teach it to their learners. Many terms are used when dealing with the way it is taught, notably, explicit, implicit, direct, rich instruction (see 1.8.4.1). These are generally related to the type of vocabulary to be taught, be it high-frequency or low-frequency word, and to the learners' level, be it beginner, intermediate or advanced.

Being at the university, the students are supposed to have mastery of the high-frequency words from their previous studies at the middle and the secondary

school. Sometimes a word can create a handicap for comprehension, so a quick explanation or translation to the mother tongue or L2 can solve the problem and save up time. Other times, the word is important and it would be more appropriate to provide what Beck, McKeown and Omanson (1987: 149; qtd in Nation, 2001) call 'rich instruction'. Nation explains that the direct teaching of vocabulary involves giving elaborate attention to a word, going beyond the immediate demands of a particular context of occurrence. It is appropriate mainly for low-frequency words and words for which the learners have special needs.

Such an instruction requires time to be spent on the target words, an explicit exploration of many aspects of word knowledge, and a thoughtful involvement of the learners in processing the word. It is corroborated that "English vocabulary teaching at higher reading levels should involve direct teaching and context-based approaches" (Hyso & Tabaku, 2011: 53). Even though this method is criticized as it is time consuming (if the teacher has to cover aspects of word knowledge) and teachers cannot cover the whole amount of such a lexis, it remains effective for providing thorough explanation for some words which need to be part of the productive words of learners.

Contrary to this instruction, the incidental learning of vocabulary makes the learners exposed to the language and encounter the words repeatedly via the various readings and listening they come across. More beneficial, it would be the use of the words in productive skills to express themselves in writing and speaking. In so doing, they succeed to increase their lexical storage.

It is none a of waste of time spent on teaching vocabulary as richness of the repertoire allows the user of the language to choose suitable words for accurate interpretations to be done and special ideas to be conveyed. And even student-teacher and teacher-student conversation may yield beneficial results for it can be more memorable as it has arisen from the learners' own interests and needs (Harmer, 2001).

Whether to opt for the direct teaching or the implicit is a question that arises along with the words to be taught and the students' level. Whether vocabulary learning is done through rich instruction or incidental learning, the main objective is that the words undergo the fate of being better memorized and less forgotten.

4.7. Enhancing VLS Use

As previously cited (see 1.8.2), an enhancement towards the use of VLS appeared in the last decades as they proved to have an effective role in students' vocabulary learning (Cohen, 1998; Nation, 1997, 2001; Schmitt, 1997, 2000). More precisely, the use of memory strategies, characterized as deep strategies, ensure better retention of the learnt lexis (Hakem, 2015).

In a study conducted on vocabulary attrition, Alharthi (2012) found out that his students teachers started to use less strategies after graduation as most of them became teachers. Then they became more inclined towards the use of word guessing strategy than dictionary use strategy. Moreover, he reported that the use of repetition with Arabic translation as a memory strategy was linked to a loss of receptive vocabulary. He explained that the use of L1 reduces the opportunities to practise L2 vocabulary which in turn contributes to the loss of receptive vocabulary.

In a recent study, Alharthi (2014) aimed at investigating VLS as a potential factor of lexical attrition/retention. His findings "revealed a new trend towards the use of rote learning and its impact on attrition in receptive word knowledge and the usefulness of note taking to maintain receptive and productive lexical knowledge" Alharthi (2014: 27). His subjects moderately use cognitive and metacognitive VLS, some of which seem to be easy and quick to use such as repetition and note taking strategies. However, other strategies like: integrating a word into a personal experience, interaction with friends and reading seem to be a bit difficult. He explained that a possible reason could be that simpler strategies did not require much effort (in processing), such as the keyword method and semantic mapping, and thus they are more favoured by learners.

In the present study, the results showed that the dictionary use strategy is the mostly used followed by word-guessing, and connecting the word with its synonym and/or opposite and image word's meaning strategies.

As VLS use proved to be a predictor for better retention which in turn reduces vocabulary attrition, it would be wiser to promote the use of a larger number of strategies to suit the different students' learning styles and words. Strategies instruction can go along with some activities that develop their use as those which are going to be cited in the following section.

4.8. Word Recognition Activities

Since vocabulary is a great predictor of overall reading ability (Nation, 1990), attention should be put on the best ways to present and teach it. The matter should be further and deeper " as vocabulary acquisition is complex," therefore, "vocabulary learning strategies should be taught even to advanced students and this instruction at higher reading levels should involve direct teaching and context-based approaches" (Hyso & Tabaku, 2011: 54). To apply what is presented in the previous section, a number of activities promoting the use of some strategies is suggested in the following sections.

4.8.1. Dictionary Use

The use of the dictionary is inevitable and crucial during the learning process. It not only serves the enrichment of the learner's lexicon but it also enhances the autonomy in him. It helps the learner to find out the meaning of words to which guessing from context was not successful. Besides, it aids in finding a word to which the foreign language word is unknown (case of the bilingual dictionary), and in revising and consolidating the already studied lexis, in finding collocations and connotations, and in just checking the spelling or the meaning of words.

Students should be accustomed to the use of dictionaries. They are supposed to be acquainted to the different abbreviations and to the possible entries a word

may have, and of course to the phonological symbols. It is quite clear that almost all students have dictionaries into the form of applications on their smart phones. They are quick and can be effective if the search for words is not just for the immediate use, i.e. if the word is reviewed and processed deeply to be memorized. Effective dictionary use depends on a prior training. If the learners are well trained to use it, so the information are used accurately and efficiently.

There are some dictionary-based activities the teacher can introduce to the students so that the use of the dictionaries is enhanced. Examples of such tasks are suggested by Thornburry (2002: 66-8) in what follows:

a. **Tasks targeting word meaning:**
   ➤ Students are dictated words or given words on cards, and must sort them into meaning categories, using the dictionary. The title of the category can be given, or make the task more difficult left to the learners to work out. For example, the following twelve words can be grouped into three groups of four words each: *board, club, piece, net, hole, tee, racket, umpire, check, green, court*. Note that many of these words are polysemic (i.e. they have more than one meaning) so learners will need to use their dictionaries intelligently in order to locate the correct meaning area (in this case, meanings connected with games).

<div align="right">(Thornburry, 2002: 66)</div>

In such an activity, the students can uncover the other meanings for words they have always known, such as *minute* which can be an adjective meaning *tiny*, or *very detailed, elaborate* and *thorough*.

   ➤ Students find the odd one out in sets of three or four words (*duck, pigeon, python, stork*); matching synonyms (*poisonous – venomous*), antonyms (*harmless- dangerous*); organizing words into hierarchy ranks (*e.g. reptile, snake, python; fruit, apple, Granny Smith*).

<div align="right">(Thornburry, 2002: 66)</div>

b. Tasks involving researching the grammar of words

➢ Students organise words into parts of speech, according to dictionary information, or into countable / uncountable (nouns), transitive / intransitive (verbs), etc.

➢ Students use dictionaries to check the grammatical correctness of sentences such as:

I'd like some informations about Italy.

How much potato would you like?

I prefer Californian wines to French ones.

The flat was full of furnitures.

Or

I suggested him to see a dentist.

She recommended the film.

He explained me the lesson.

The doctor advised me to rest.

They apologised that they were late.

(Thornburry, 2002: 66)

c. Tasks raising awareness about collocations

➢ Students match words on cards to form collocations, checking with the dictionary.

1. blood	a.	night
2. stomach	b.	effects
3. time	c.	pressure
4. stress	d.	breakdown
5. minor	e.	ulcers
6. balanced	f.	constraints
7. sleepless	g.	trouble
8. nervous	h.	ailments
9. heart	i.	meal

10. harmful   j. overload

(Walton, 2000: 24)

d. Tasks for word derivations

➢ Students use dictionaries to complete grids or 'spidergrams' of word families, to show common derived forms:

person	crime	verb
robber	robbery	rob
....	....	murder
hijacker	....	....
....	rape	....
....	....	smuggling

(Thornburry, 2002: 67)

e. Tasks focusing on style, connotation and frequency

➢ Students use dictionaries to decide which word or expression in a group is the odd one out, in terms of style:

flee	run away	retreat	turn tail
occur	crop up	happen	take place
supervise	monitor	keep an eye on	oversee
bump off	murder	kill	assassinate

(Thornburry, 2002: 67)

➢ Students use dictionary information to group words according to whether they have neutral or negative connotations. For example:

notorious	famous
publicify	propaganda
skinny	slim
chat	gossip
childish	childlike
queer	gay
officious	official
collaborator	ally
bachelor	spinster

(Thornburry, 2002: 67)

➢ Students use frequency information in the dictionary to rank words in terms of frequency. For example:

1.	sick	unwell	ill
2.	grill	cook	fry
3.	ship	yacht	boat

   (answers: 1. sick, ill, unwell; 2. cook, fry, grill; 3. boat, ship, yacht)

➢ Students can underline words in a text that fall within the 2,000 (or 3,000) top most frequent words bands.

(Thornburry, 2002: 68)

4.8.2. Dividing Words into Roots and Affixes

Not all the words are only one entity. Then, it is important that English learners get acquainted with word building rules so that they can divide words into their roots and affixes and find out the meaning of words, or at least understand that the word may have a meaning connected to part of that word. In English, there are three forms of word formation (or word building), namely, affixation,

compounding[4] and conversion[5]. Teachers should raise learners' awareness about these notions and teach them so that they can help themselves in the receptive or the productive knowledge of words.

Affixation is the process by which prefixes and suffixes are added to the base item (root or stem) forming words of different meaning and /or changing from one part of speech to another. The transformation may also cause a change at the level of pronunciation, either in the sound or the stress. For instance:

democrat   / ′d e m ə k r æ t/

democratic   / d e m ə ′k r æ t i k/

democracy   / d i ′m ɒ k r ə s i /

Word building can also cause a change in spelling; in derivation like in man – manliness, identify – identification, or inflection such as try –tries.

In this context, common prefixes, suffixes and even inflection endings should be pointed out to the learners in order to gear them up to quick and efficient word identification. The table below provides a list of English affixes with illustration and determination of the meanings they carry.

Affixes Showing Negation	
Meaning	**Affixes in English words**
- without, no, not	**il**legal, **im**moral, **ir**responsible, **un**fair, **un**economical, **un**ethical, help**less**, harm**less**… **dis**agree, **dis**appear, **dis**approve, **de**value,

---

[4] Compounding means to form a compound word out of two or more root morphemes, for example: mailman, fire-fighter.

[5] Conversion is a type of <u>word formation</u> by which a word (of a new word class) is derived from an existing word (of a different word class) without introducing any change in form. For instance, the <u>noun</u> *orange* (referring to a fruit) is derived from the <u>adjective</u> *orange* (referring to a colour). It is also called zero-derivation as no change occurs in the transformation.

- do the opposite of, remove	**de**motivate…
- wrongly, badly	**mis**-use, **mis**-understand, **mis**-judge…
-not, absence of, against	**anti**-corruption…
Affixes Showing Time	
- before	**ante**cedent**, ante**penultimate, **fore**cast**, pre**cede…
- after	**post**-war…
- again	**re**write…
Affixes Showing Different Meanings	
- the state of	sugar**y**, fatt**y**, wealth**y** …
- having the quality of	danger**ous**, humor**ous**, optim**ist**, help**ful**, fruit**ful**…
- reflexive characteristics	**self**-reliant, **self**-centred, **self**-made …

Table 4.2.: Affixes with Meanings (Hakem, 2009: 86)

A typical activity that can be linked to using the appropriate prefixes to words can be:

Complete the words in the sentences by supplying one of the prefixes: dis-, mis-, ill-, un-.

1. The word 'apprise' is often .... used in English. (misused)
2. At her age, she should not leave her cold .... treated.
3. It is .... legal to travel without a valid ticket.
4. They form a strangely ....-assorted couple.
5. I won't invite her: she's always ....satisfied and critical.
6. They want to turn this .... used factory into a sports centre.
7. An .... named witness said that he saw the boys leave in a green car.

8. As an outsider, he will give you an objective and .... interested opinion.

(Grellet, 2009: 121)

Moreover, as already mentioned, suffixes not only change the meaning of words but determine also their functions in the sentence, i.e. the words modify their parts of speech shifting, for instance, from an adjective (responsible) to a noun (responsibility). The lists below include suffixes for content words formation (Hakem, 2009).

- ✓ Typical **noun suffixes** are: -ence, -ance, -or, -er, -ment, -list, -ism, -ship, -ency, -sion, -tion, -ness, -hood, -dom.
- ✓ Typical **verb suffixes** are: -en, -ify, -ise, -ate.
- ✓ Typical **adjective suffixes** are: -able, -ible, -al, -tial, -tic, -ly, -ful, -ous, -tive, -less, -ish, -uent.
- ✓ Typical **adverb suffix** is: -ly (although not all words that end in -ly are adverbs like friendly).

A typical activity about fixing affixes to stems to form nouns, verbs and adjectives can simply be a table of three columns where the students find the missing words from the given stem by adding the appropriate affix. Another activity can be a filling-the-gaps exercise in which they change the form of the given word as the model below.

Activity: Read the text below. Use the given words to form one word that fits the same numbered spaces in the text.

(0) behave - (1) comprehend - (2) friend - (3) interest - (4) apology -   (5) embarrass - (6) polite -   (7) offend

Cross-cultural Misunderstanding

Many visitors to Britain find the natives' (0) **behaviour** frequently rather strange and occasionally totally (1) .... One of the most common complaints is that we are cold and (2) .... In fact, all we are trying to do is to 'mind our own business' and not to interfere in other people's. This may also make us appear interested in foreign visitors. We are also seen as far too   (3) ...., forever going round saying 'sorry' and 'I beg your pardon'. Again, our main concern is to avoid any degree of (4) .... On the other hand, foreign visitors often appear (unintentionally) (5)   .... to the British. What to a Spaniard is a wholly (6) .... click of the fingers to attract attention is highly (7) .... to a British barworker and practically guarantees a drink-free evening!

(Walton, 2000: 74)

        Another activity that enhances retrieval of already learnt lexis is to select a prefix or a suffix and ask the learners to think for a moment and to write down all the words they know that contain the target affix. The words are written on the board and the teacher can add additional words to enrich their knowledge (Adapted from Ur & Wright, 1992).

        It is known that a large number of English words have Greek or Latin origins. Thus, acquiring knowledge of these stems help the learners to find out the meanings of many words, or at least know that the meaning of the target word is related to the Greek or Latin stem before referring to the dictionary. The table below includes some Latin and Geek roots with their basic meanings: ('G' stands for Greek and 'L' for Latin).

root (source)	meaning	English words
aster , astr (G)	star	astronomy, astrology
audi(L)	to hear	audible, auditorium
bio(G)	life	biology, autobiography
fix (L)	to fasten	fix, suffix, affix
geo (G)	earth	geography, geology
graph (G)	to write	graphic, photography
manu (L)	hand	manual, manuscript
paed (G)	child	paediatrics, paedophile
phys (G)	body, nature	physical, physics
ter, terr(L)	earth	territory, extraterrestrial
vid, vis (L)	to see	video, vision, television

Table 4.3.: Some Common Greek and Latin Roots

(Adapted from: Fowler *et al.*, 1995)

Even though the affixes carry little meaning (Gairns & Redman, 1986), their recognition helps the learners to uncover the meaning of many words or at least guess that the meaning of the word is related to the meaning of the affix (Cook, 2001). Consequently, they are supplied with tools that aid them discover the meaning of words and develop word recognition skill and simultaneously help an expansion of word knowledge and development of word building strategy.

1.8.3. Word Lists

Students accustomed to take notes during lectures generally have their word lists in which they jot down new words they encounter or find interesting and useful. They can register words when checking words for home assignment or even when listening to songs or watching films in English.

The findings revealed that word lists are not frequently used by the students (see 3.3.1.6. and 3.3.3.3.). Perhaps, initially they don't organize them appropriately; besides they do not review them regularly, as already revealed in the questionnaire and the interview. Thus, to have an organized and easy handled word list, the teacher can guide his/her students to group lexical items in a way that helps them in a quick checking of the words or a rapid retrieval after being learnt. Being aware of the fact that the vocabulary of a language "consists of a series of interrelated systems and is not just a random collection of items" (Gairns & Redman, 1986:69) encourages the learners to think about a well organized list preferably based on a semantic mapping as "evidence suggests that words loosely connected by topic may be easier to learn than more tightly connected lexical sets." (Thornburry: 2002, 53). Then, words can be grouped according to their semantic fields as it is shown below (Gairns & Redman, 1986: 69-71).

- *Items related by topics*: it is one of the most common and useful groupings found in coursebooks, e.g.: types of fruits, articles of clothes, etc.

- *Items which are similar in meaning*: these items are generally easily confused. They need to be contextualised properly. They are commonly taught into sets such as 'ways of walking', e.g.: limp, tiptoe, amble or 'ways of looking', e.g.: peer, squint, glance, stare.

- *Items which form pairs*: these can be synonyms, opposites and contrasts, e.g.: old / new, buy / sell, lend / borrow, obstinate / stubborn.

- *Items along a scale or cline, which illustrate differences of degree*: for example, describing an essay: excellent / very good / good / satisfactory / weak.

- *Items within 'word families' i.e. derivatives*: such classification illustrates the principles of word building, meanings of affixes and pronunciation (stress shift).

    e.g.: bi'ology – bi'ologist – bio'logical.

        helpful – unhelpful

        pleasant – unpleasant

- *Items which connect discourse*: discourse connectors can be grouped together, they can facilitate writing strategies. The list can include: first, firstly, to begin with, secondly, later, last of all, to conclude with and else.

Teachers can also organize and / or expand the semantic field of a word or a concept by the use of word maps (also called semantic grids or word webs). Barton (2001) suggests an activity in which a concept (the central web concept) tackled in a reading literature session can be introduced (for example: valuing individuality) in addition to three category headings (for example: things that promote equality, things that make people unique, and threats to diversity). The teacher asks the students if they know words that can fit into the suggested categories and put them into the boxes. Then after reading, they can identify other words that can relate to the central concept and with guidance, they attribute them to the right category. In so doing, the new words are discussed in the context of the reading passage (or story) and connected to the words the students already know. Here is an example of a semantic map.

Things That Promote Equality	Things That Make People Unique
justice	opinions
opportunities	handicaps
rapport	attributes
mandates	aspirations

VALUING INDIVIDUALITY

Threats to Diversity

racism/sexism

intolerance

discrimination

condescension

pejoratives

fascism

ethnocentrism
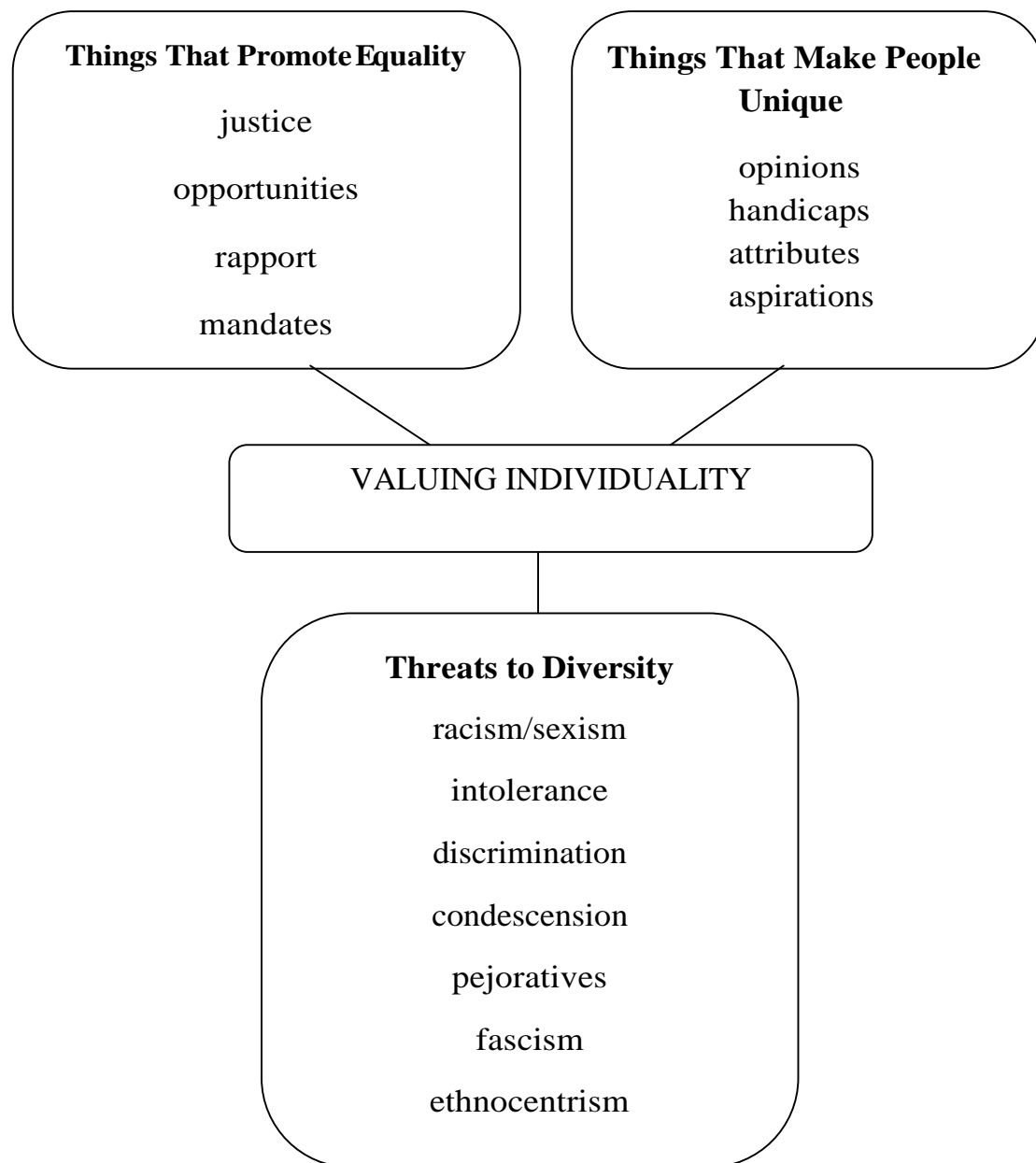
Figure 4.1 : A Word Web / Semantic Map (Barton, 2001: 86)

Another more sophisticated way of building a words map can be as the one shown below. It is into the form of a tree. It is time-consuming but efficient as a visual aid which helps learners memorize a great number of related words to a topic. The example collects words in relation to racism suggested by Barton (2001). The roots of the tree represents the roots of racism like oppression, hatred, colonialism,

prejudice, and the leaves represents the results of racism, such as, despite, bigotry, anguish. Between the two, the ways to overcome this belief are cited, for instance, education, understanding and accepting diversity.
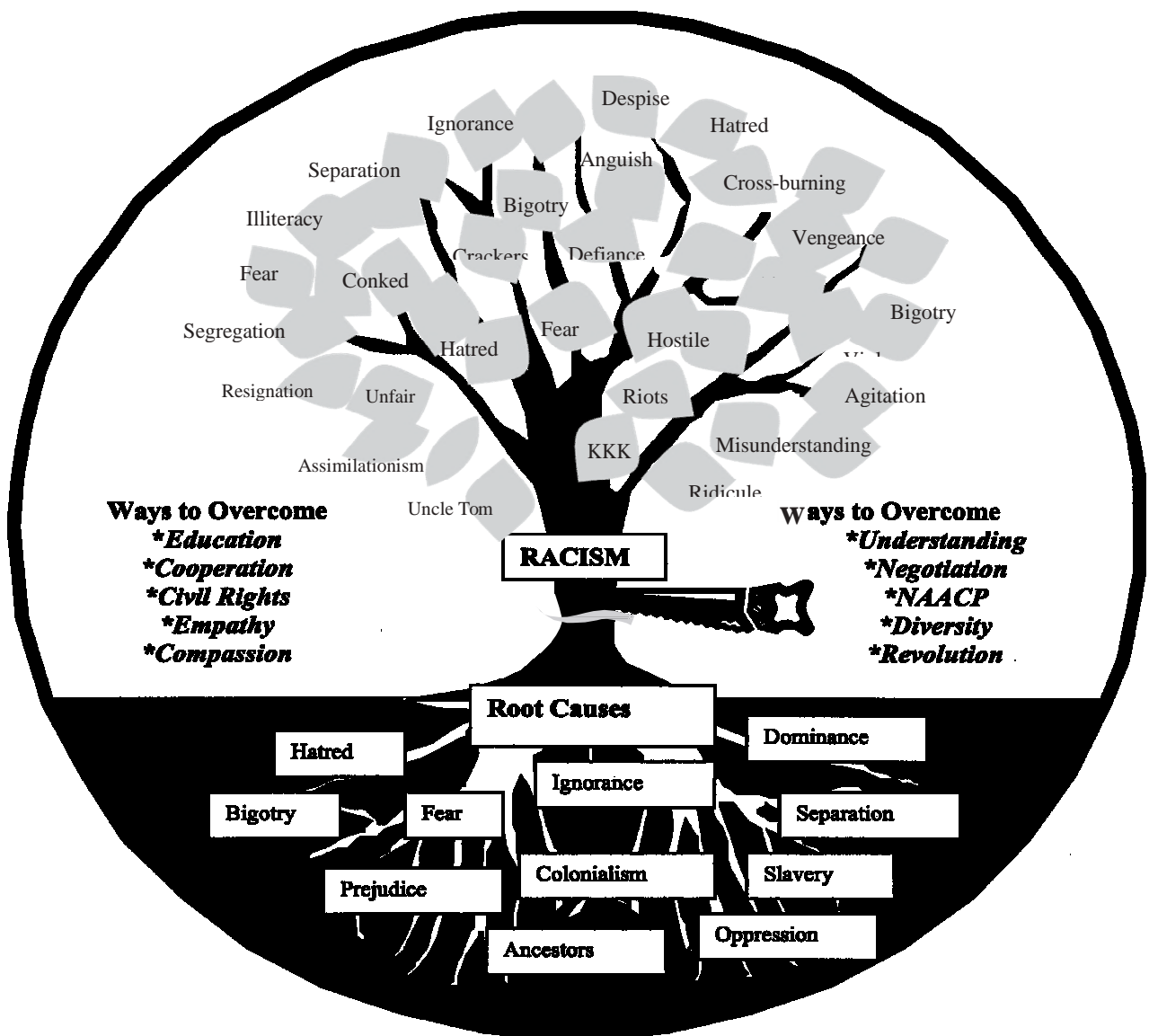
Figure 4.2: A Tree Structure (Barton, 2001: 87)

The same way can be applied on different concepts collecting words related to it. Then, word listing strategy is useful and beneficial which helps a better organization and expansion of word knowledge; besides, it aids the learners to better organize the items semantically to help an easy and quick retrieval of words.

1.8.4. Referring to Cognates

As a romance language, English words have similar friends in French. The thing that helps enormously Algerian learners take profits from French (being the second language in Algeria). The results revealed that the use of cognates strategy is rarely used by the students (see 3.3.1.6. and 3.3.3.3.). This may be due to a weak lexical knowledge in French. It can help them recognize English words meaning provided that they know the meaning of the French words. In general, "Cognates and loan words provide a useful 'way in' to the vocabulary of English, and are worth exploring" (Thornburry, 2002: 27).

However, the use of French words can be erroneous if the students are not aware of the false cognates (or false friends) that mislead them in finding out the meaning of the words and put difficulty on the learnability of the words as new concepts have to be introduced to the already learnt words in French. So in order to avoid falling in the trap of the false friends, teachers can introduce their students to some frequently used words and clarify the differences in meanings, particularly if they are practised in contexts.

Below is a suggested activity where two different definitions are presented and the students have to select the one they think is appropriate to the italicized words, easily confused with cognates in French words. Then they check their answers using a dictionary (the idea is adopted from Gairns & Redman, 1986: 128).

1. I bought an interesting *magazine* yesterday.

   a) A book that contains articles and photographs.

   b) A shop.

2. He is a *formidable* director.

   a) It is difficult to deal with him.

   b) He is very nice.

3. He is _confident_.

   a) He is sure of himself.

   b) He can keep secrets.

4. It is a big _issue_. We need more time to think about it.

   a) A problem.

   b) An exit.

5. I read the newspaper when I _travel_ to my office by bus.

   a) Work .

   b) Go to

6. My grandmother was a _terrific_ woman.

   a) They all liked her.

   b) They were all afraid of her.

This kind of exercises is a useful way to highlight the notion of false cognates and to bring a list of items easily and / or frequently confused. In so doing the learners become more aware and enrich their lexical store. Meanwhile, learning words in such a distinctive way may reinforce retention and lessen attrition.

1.9. Reconsideration of Homework Assignments and Term-Papers

On the light of the findings showing that students rarely review what they study in the classroom, except by the approach of the exams (see 3.3.1.6., 3.3.3.3. and 3.3.3.4.), it would be more appropriate to focus on introducing homework activities. Teachers strive hard to introduce input that enhances their learning process during the lesson; however, class time would be inadequate to expand their language knowledge, viz. vocabulary.

Then, to push the students to work more, homework activities provide opportunities to consolidate and practise what has been dealt with in the classroom

and do additional work. So the selection of the given tasks should be careful, interesting and innovative so that they appreciate doing them, and at the same time not overwhelming in terms of difficulty and size in order not to be boring and neglected. If used as consolidation tasks, they allow them to review and consolidate what has already been done during class time. Thus, vocabulary store is enlarged and reinforced; simultaneously, VLS are promoted as they use dictionaries, review or enlarge their word lists, and use memory strategies to memorize the words.

Teachers may complain from students' laziness in achieving homework activities. So, to overcome this problem, they can check and grade their work periodically and irregularly to make them ready to be checked at any time. Another problem may appear when the students copy from their peers' work; this can become beneficial. If the teacher asks about the achieved homework, the students will manage to understand what they copy from their friends or do the task alone.

Another way to enhance homework activities is to foster and praise good work in order to push the learners do more efforts the following times. In addition, they should be made aware of the progress they do and the advance in learning process. And more importantly is that they build the ground to work independently and do individual research to be geared towards autonomy.

Term-papers can also be beneficial for the students as they do a great effort to work on a topic (As Student 12 reported in 3.3.3.4. Question 7). This allows them to do research, collect the required data and synthesize the whole productively that requires laborious work, both for the selection of expressive words and well-structured sentences. Knowledge learnt from hard work necessitates deep processing of information. And the deep processing results a better retention, hence less attrition. They tend to use discourse both in its written and oral mode. The presentation can also be projected through the data show device. Thus, they develop as well a competency in ICT's[6].

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[6] ICT's or ICT is an acronym that stands for Information Communication Technologies. It generally "relates to those technologies that are used for accessing, gathering, manipulating and

1.10. ICT: Educational Technology

Third-millennium learners rely on technology in every facet of their lives, mainly communication. Another term that covers the use of technology in communication is ICT (Information Communication Technology). EFL teachers can exploit their students' interest in it and direct them to use it as a way of learning. It can contribute positively and effectively in a variety of ways. Teachers can frame it into an instructional way and use it as a tool to enhance their English learning. They can then engage them and allow them to interact in a new and different way of learning whether in the classroom or outside the classroom setting. Learners can change their vision of technology as a means of entertainment to a means of language learning. It has been thought that the use of video activities, computer sets and online social networking sites can have an impact on their English, simultaneously, vocabulary learning. The requirement here is that teachers should be digitally literate in order to be able to deal with such devices in teaching.

4.10.1. Video Activities: Enjoyable and Educating Means

Videotapes have long been used as means to bring native speakers language into the classroom. Learners have the possibility to see the language-in-use not just to hear it; listening to the language and seeing it performed into scenes/actions makes them more interested in the language and develops a cross-cultural awareness in them (Harmer, 2001). A large number of videos is available via the use of YouTube and other internet sources.

It is well-known that videotapes lend themselves very well to develop the listening skill. However, they can be used for other productive and creative tasks accomplished by the learners. They can be asked to produce their own videos turning around a particular topic, like it is the case with term-papers (see 4.8.). In so doing, they can use cameras and build their own discourses, i.e. picture and

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presenting or communication information. The technologies could include hardware (e.g. computers and other devices); software applications and connectivity (e.g. access to the Internet, local networking infrastructure, videoconferencing)" (Toomey, 2001:3).

language produced together. Learners interested in the topic, enthusiastic and dogged to realize the best product do their best and develop their potential to bring something new and valuable. Therefore, they search for the best pictures that interpret their themes and look for the most expressive vocabularies and well-constructed sentences. Consequently, they enrich their vocabulary store synchronically, i.e. at the semantic, morphological and phonological levels.

As interest in the topic exists and more efforts are done to achieve the work, it can be a memorable, enjoyable and educating experience which gives more chance to the learnt lexis to be retained and less chance to be forgotten. At the same time, it raises learners' motivation in language learning.

4.10.2. Facebook: Online Social Networking

Facebook was first founded in 2004 by the 19-years-old Mark Zuckerburg, a sophomore at Harvard University, then it was opened to wider public use; six years later, the site has become one of the biggest web sites in the world, visited by 400 million people a month (Carlson, 2010). It is nowadays par excellence the most popular social networking all over the world even though others such as twitter and LinkedIn exist (see 4.10.3). Its users keep in touch with people they know mostly virtually from all folks of the world. They share knowledge, funny and entertaining news, videos and photos and many other things they are interested in.

It is not likely that youngest nowadays are nerdy as they spend most of their time logged in to Facebook and the like. Most of them became avid users looking for what is sent to them and responding enthusiastically. It is known that they primarily use it to learn more about a person they have met; they send messages to friends and thus maintain social and emotional ties.

Advocating the sociocultural approach (based on work by Vygotsky, 1978), interaction from within a community of language learners, thus, language and social interaction play a role in human development and serve as cultural practices that can lead to the construction of knowledge shared by members of the community; in

terms of how this might contribute to social networking, virtual connections with other learners and experts around the world can potentially offer a rich environment for socio-cultural language exchange (Harrison & Thomas, 2009).

On this premise, it would be wiser to exploit online social networking, viz., Facebook for students' education. Godwin-Jones (2008: 8) corroborates stating that it would be "logical to leverage the current student generation's heavy reliance" on these networking platforms in favour of language learning. English language teachers and learners can investigate and find activities that help them in the learning process, be it in a direct or indirect way. Simultaneously, such networking offers instructors ways to enhance their students' motivation and reinvigorate the classroom climate (Mazer *et al.*, 2007). Besides, such social networking tools "also provide opportunities for language learners to enhance digital and multiliteracy skills, interact in and through the target language, work collaboratively, and enhance their linguistic and pragmatic proficiency" (Lomicka & Lord, 2015).

Kabilan *et al.* (2010) reported studies conducted by Roblyer *et al.* (2010) and Haverback (2009) which revealed that these technological tools help enhancing language learning. The former found that university students' wide connection to Facebook and similar technologies supports classroom work. The latter observed her students' creation and participation by the use of Facebook; she noticed that they use it to discuss assignments, ask and answer questions, send information, and support each other for their Reading Education Method course. She also observed that they were motivated to be involved in discussions in Facebook and they grasped better understanding of the theoretical principles in ensuring effective reading. The collaborative work helped them as well to develop better ideas compared to when they read individually.

The use of Facebook and the like allows an incidental language learning as exposure to the language is multiplied and interaction to accomplish different activities occurs. Kabilan *et al.* (2010) again reported investigations carried out by Chun and Plass (1996), Akbulut (2007) and Shahrokni (2009) which examined the use of multimedia tools or online applications for language teaching and learning,

specifically on reading comprehension and incidental vocabulary learning. To explain the nature of learning achieved in this way and the learning patterns and behaviours, ideas from incidental learning were followed. They uncovered that students learn unintentionally from doing other activities regardless of whether these activities were academic or non-academic (Kerka, 2000 qtd in Kabilan *et al*., 2010). Thus in completing a task online, they are face to observation, repetition, social interaction and problem solving which helps memorization and reviewing the already seen and the new lexis; then, this continuous contact lessens attrition as they are in repeated exposure to the target language. Sometimes words or expressions are made easier for learning mainly through visuals, funny and intelligent representations that can be memorable when shared, maybe more than once. An example of these is the following.

icemaker — refrigerator — shelf — freezer — crisper — side-by-side refrigerator

draining board — steam (v) — burner — sauté (v) — stovetop — freeze (v) — defrost (v) — garbage can

cooking

peel — slice — grate — pour — mix

whisk — boil — fry — roll — stir

simmer — poach — bake — roast — grill
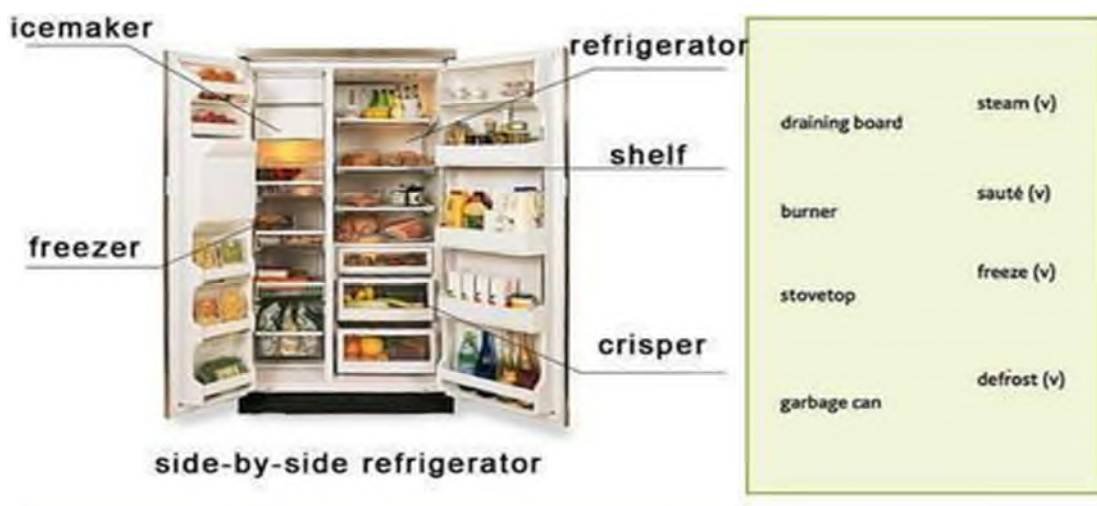
In the picture, different nouns and verbs in relation to the kitchen are represented where the learners memorize the word and relate it to their images (see more in Appendix I).

It is not enough to direct the learners to use the Social Networking Sites without raising their awareness about their importance to enhance their vocabulary learning (or language learning in general). They should be aware that a serious engagement in using such platforms is an effective aid to improve their proficiency level; the opportunities and the value of learning in a technological environment should be pointed out. According to Mealman (1993; qtd in Kabilan *et al.,* 2010: 185), such a way of incidental learning gears the students to "(1) increase their

competencies, (2) increase their self-knowledge, (3) value lifelong learning, (4) improve their life skills and, (5) develop self-confidence".

In the case where teachers work with their students, to leverage from the use of Facebook and the like, i.e. for a better and more successful learning they have to work on planned tasks or projects with their students where the objectives are set in advance so that they may not focus on things teachers do not aim at. And even in case where the students use Facebook alone (without teachers' instruction) for socialisation purposes, the task can also be efficient in terms of vocabulary learning, cross-cultural competence development and building confidence.

1.10.3. Other Social Networking

Throughout the wide Internet world many other social networking sites appeared which satisfy different functions, purposes and interests. Besides the afore-mentioned site, Facebook, others emerge as tools that, thanks to them, social ties occur and simultaneously based on the theoretical perspectives, have promising potential for use in language class (Lomicka & Lord, 2015). The authors classified a number of current popular and freely available social networking sites in the following table:

NAME	DESCRIPTION	URL
EdModo	Education oriented site, shares layout of popular Social networking sites. Provides a safe and easy way for your class to connect and collaborate, share content, and access homework, grades and school notices.	www.edmodo.com
Facebook	Online social networking service, originally designed for college students	www.facebook.com

	but now extended to general population.	
Google Hangout	Hangouts bring conversations to life with photos, emoji, and even group video calls for free. Connect with friends across computers, Android and Apple devices.	www.google.com/hangouts
GroupMe	A mobile group-messaging application owned by Microsoft.	www.groupme.com
Instagram	An online photo-sharing, video-sharing and social networking service that enables its users to take pictures and videos, apply digital filters to them, and share them.	www.instagram.com
LinkedIn	A business-oriented social networking service with similar functionality to Facebook.	www.linkedin.com
Pinterest	A visual discovery tool that people use to collect ideas for their different projects and interests. People create and share collections (called "boards") of visual bookmarks (called "Pins") that they use to do things like plan trips and projects, organize events or save articles and recipes.	www.pinterest.com
PodOMatic	A website specialized in the creation of tools and services that enable users to easily find, create, distribute, promote and listen to both audio and video	www.podomatic.com

	podcasts.	
SnapChat	A mobile app that lets users take photos and short videos; users can decide how long data will be visible once opened, which can span of up to 10 seconds, and then supposedly disappears forever.	www.snapchat.com
Twitter	An online social networking and microblogging service that enables users to send and read short 140-character text messages, called "tweets". Registered users can read and post tweets.	www.twitter.com
VoiceThread	An interactive collaboration and sharing tool that enables users to add images, documents, and videos, and to which other users can add voice, text, audio file, or video comments.	www.voicethread.com

Table 4.4: Representative Social Networking Sites

Another potential for language learning is www.Livemocha.com. It is purely devoted to languages learning where the participants select from the 35 languages set for free online learning. They learn from situations, so they learn lexis related to a specific context they select. The list is too long but the selection should match the needs of the learners. Learning in a funny atmosphere and learning by doing help better retention of the words encountered and constant exposure to the language prepares the ground for an incidental learning that lessens attritions.

1.11. Conclusion

This chapter tries to set out some suggestions that are hoped to help EFL learners to better retain the studied lexis. As literature on vocabulary attrition does not provide solutions to fight attrition, the researcher, from her findings, thought that the best remedy relies on better learning, and this can be realised by acquiring and using the effective ways of vocabulary learning and teaching.

But prior to this a careful selection of the introduced lexis is advisable. Teachers caring for providing vocabulary according to the learners' needs can aid considerably as the repeated use of this lexis (according to the specialization for example) helps memorization and then lessens attrition. Then a needs analysis allows diagnose the deficiencies and provide material accordingly.

As previously cited, vocabulary attrition can be lowered by good memorization which is guaranteed by the appropriate use of VLS and exposure to the language. This can be achieved only with higher motivation to learn and use the strategies because it would be useless to know the strategies and not to use them. So much focus is to be put on the usefulness, the efficacy and the appropriate and wide use of VLS that are valuable aids in language learning in general and vocabulary learning in particular. From another angle, promoting the use of VLS allows the learners to better handle the large amount of lexis encountered incrementally.

Word recognition activities from their parts can be one of the concerns of EFL teachers (and language teachers in general) because practicing such activities reinforces learners' knowledge of words and expands it. They develop in them as well guessing the meanings of words as it is the case with dividing the words into roots and affixes. Organizing words into selective lists can not only help in better organization but easier retrieval too. Referring to cognates helps finding out the meanings of unknown words with a careful attention to the false cognates.

Reading is another means that enhances vocabulary learning, particularly incidental. In so doing they satisfy the pleasure of reading (if interested in reading, of course) and simultaneously learn lexis about different topics. Being in constant contact with the language allows reviewing the already encountered words, thus

repeated exposure helps the forgotten to be remembered, especially the high-frequency words, and allows as well expanding the semantic map in relation to a topic.

ICT's can be effective tools as 21st century learners are heavily relying and influenced by technology. Thus, if they are engaged in their language learning process they can create more opportunities for learning. So being motivated to produce a video allows them to look for expressive words and well-constructed language. Moreover, interaction via online social networking such as Facebook and the like provides opportunities to learn from each other by exchanging ideas about assignment for instance, knowledge and information about a particular topic in a cross-cultural environment. All this is accomplished in an entertaining way where the word is the most important element that carries any desired message and where the repeated exposure to the language, viz. the lexis helps better retention.

GENERAL CONCLUSION

General Conclusion

Being the mirror of learning, language attrition sprang out as a new field of study independent from language learning to investigate the phenomenon of forgetting. It was firstly used to refer to the decline in individuals performing the foreign language then developed throughout the three and so last decades, starting from the 1980 Pennsylvania Conference, to explore the different language skills. Vocabulary, as part of what can be forgotten in a language, is the concern of the present work aiming at probing it in second-year EFL learners at the University of Tlemcen.

It is evident that language learning cannot occur with no backsliding (Schmitt, 2000) and more precisely, vocabulary, as it is encountered increasingly and continuously. Foreign language learners' concern is to enhance their lexical luggage in order to be able to develop a proficiency level that allows them to master the language at the required level.

However, what has been noticed is that the target learners forget a large amount of the encountered lexis and sometimes completely lose it even though it has been practised in the classroom. This lexis was studied in the Discourse Comprehension module currently known as Study Skills module.

The questions that may arise in the present context are whether vocabulary learning happens with the required effort or not, whether the appropriate tools are used throughout the learning process or not, whether it is committed to the long-term memory or not, whether opportunities to learn are created or not, whether (repeated) exposure to the language is ensured or not by the EFL learners. These questions have motivated the researcher to investigate mainly the factors that may have a direct effect on vocabulary attrition.

In order to explore the phenomenon, a longitudinal study was carried out along twelve months over three intervals. The objective behind using this process was to observe the development of lexical attrition over a longer period. Meanwhile, the overall aim was to uncover some causes of attrition and the type of vocabulary undergoing more attrition, in addition to the part of speech more likely to be forgotten. The work is hoped to highlight some insights that may help both educators and learners to reduce vocabulary attrition.

A number of research instruments were used along the study trying to discuss the research questions and hypotheses, notably, six vocabulary tests, two questionnaires and an interview. In the first interval (Time 1), the Vocabulary Levels Test (Schmitt *at al.,* 2001) and the Productive Vocabulary Levels Test (Laufer & Nation, 1995) were used to evaluate students' initial proficiency level. Vocabulary Knowledge Scales, 1 and 2 developed by the researcher, to compare the impact of two teaching methodologies on vocabulary attrition and Vocabulary Knowledge Scale 1 to compare the efficacy of VLS use and non-use with, respectively, the experimental and the control groups, in addition to Receptive Vocabulary Test and Productive Vocabulary Test, also developed by the researcher to check learners' attrition of the studied vocabulary over the three intervals (Time 1, 2 and 3) both receptively and productively. Two questionnaires (version 1 and version 2) and an interview were introduced to highlight their motivation and attitude, their VLS use, and opinions about the studied material, the teaching methodologies and the causes of their lexical forgetting.

The analysis and interpretation of the elicited data throughout the study enabled to check the validity of the hypotheses proposed as answers to the research questions. Concerning the first hypothesis it was confirmed that the students forget most of the studied lexis; results also revealed that they may remember a word but not at the needed moment, and sometimes they remember having seen the word but do not remember its meaning. Then, they mostly experienced loss of the studied words rather than failed to retrieve them at the desired time.

As regards the second hypothesis related to the variables that may have an impact on vocabulary attrition, it was partially confirmed and partly infirmed as some factors had an impact while others did not; in addition, some factors were intertwined. It was found out that the High and Mid proficient students experienced less attrition than Low proficient ones, both receptively and productively. Therefore, the initial proficiency level had a considerable impact on lexical attrition.

VLS adequate use, as another variable tackled in the present work, proved its negative impact on vocabulary attrition. The results showed an increase in the use of the strategies which may explain the stability in the rate of attrition over the three intervals.

Concerning language disuse over summer vacation, results levelled off both productively and receptively. This means that a short period of disuse equalling three months does not influence on lexical attrition.

All learners showed higher motivation and favourable attitude towards studying English. However, the studied lexis of half of the students underwent higher attrition exceeding even 70 %. It can be concluded that being motivated and enjoying studying English without making efforts to learn remained insufficient to maintain the learnt lexis. Then motivation and attitude did not seem to have an impact on vocabulary attrition in the present context; this can be related to the lower proficiency level of some students.

The last variable dealt with was the teaching methodology. The same rate of attrition was reported throughout the two tests. Thus, what could be drawn was that teaching vocabulary within contexts (by the use of texts) and out of contexts (by isolated exercises) do not have an effect on vocabulary forgetting which means that the teaching methodologies do not influence on lexical attrition.

If taken separately, lower proficiency level and inadequate use of VLS are factors related to vocabulary attrition; whereas disuse over summer vacation, higher motivation and positive attitude towards studying English, and teaching methodologies proved to be factors not having an impact on attrition.

In an attempt to find a possible influence of one of the variables on the other, a cause and effect relationship was set. From some exceptions observed on the results, a Mid-proficient student outperformed in the tests and recorded the least attrition; however, another High-proficient student's results tallied a considerable amount of vocabulary attrition. Moreover, to another highly motivated student a severe attrition was reported. The missing link for high vocabulary maintenance is related to exerting the required efforts during the process of learning, notably by the use of VLS. Therefore, it can be concluded that attitude and motivation, would not serve an EFL learner without making efforts to do so.

The third hypothesis was confirmed as the results revealed that vocabulary was forgotten receptively less than it was productively. This could be explained by the demanding learnability of productive lexis over the receptive. Moreover, the receptive test provided clues that might have helped them recall of the words. Whereas in the productive tests, they needed to find out almost the whole form of the word with only one or two letters provided.

Concerning the last hypothesis, it was uncovered that verbs and nouns were more forgotten productively; whereas verbs were more forgotten receptively. Therefore, the hypothesis is infirmed as verbs were more prone to be forgotten both receptively and productively.

To sum up, from the present study, it can be drawn that learners lose the studied words more than they fail to retrieve them. These words could be better maintained, thus less forgotten, as long as the students are highly motivated and having a favourable attitude towards the language but exert enough efforts to learn, notably by the use of vocabulary learning strategies. The fact of not using the language over summer vacation does not seem to affect significantly vocabulary attrition as stability in the results was recorded, and so is the case with vocabulary teaching methodologies, viz. within context and out of context. Additionally, productive words are more prone to be attritted than receptive, and verbs are more likely to be lost than nouns and adjectives. A limited exposure to the language can also contribute in the attrition of words, so creating more opportunities to be in

contact with the language helps to reduce attrition. Another variable that may be added is that attrition would have been less if the introduced lexis was the right one, i.e. related to their future studies and specialities. So another variable that would have worth to be investigated was the right or wrong vocabulary to be introduced throughout the teaching material.

This investigation is in no way exhaustive as it cannot cover all the aspects of attrition nor all the variables that may have an impact on lexical attrition. It is hoped that it brings a bit of additional understanding in the field of vocabulary attrition. It calls as well for further research such as conducting it over a longer period and with a higher number of participants, checking the impact of other variables such as the right lexis to be introduced, and which of the VLS lead to lesser attrition, besides the variable of aptitude. In addition, hypotheses of attrition can be tested to check their   validity   in   the   Algerian   context.

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APPENDICES

Appendix A : Socle commun LLE

(The present table includes information about Semester 3 which is similar to Semester 4)

Annexe : Programme des enseignements du socle commun de Licence

Socle commun domaine "Lettres et Langues Etrangères"

Semestre 3

Unités d'enseignements	Matières — Intitulé	Crédits	Coefficient	Volume horaire hebdomadaire			VHS (15 semaines)	Autre*	Mode d'évaluation	
				Cours	TD	TP			Contrôle Continu	Examen
UE Fondamentale Code : UEF 2.1 Crédits : 10 Coefficients : 6	Compréhension et expression écrite 3	6	4		4h30		67h30	45h00	50%	50%
	Compréhension et expression orale 3	4	2		3h00		45h00	45h00	50%	50%
UE Fondamentale Code : UEF 2.1 Crédits : 8 Coefficients : 4	Grammaire de la langue d'étude 3	4	2		3h00		45h00	45h00	50%	50%
	Phonétique corrective et articulatoire 3	2	1		1h30		22h30	45h00	50%	50%
	Introduction à la linguistique 1	2	1		1h30		22h30	45h00	50%	50%
UE Fondamentale Code : UEF 2.1 Crédits : 4 Coefficients : 2	Littératures de la langue d'étude 2	2	1		1h30		22h30	45h00	50%	50%
	Culture (s)/ Civilisation(s) de la Langue 3	2	1		1h30		22h30	45h00	50%	50%
UE Méthodologique Code : UEM 1.3. Crédits : 2 Coefficients : 1	Techniques du travail universitaire 3	2	1		1h30		22h30	45h00	x	
UE Découverte Code : UED 2.1 Crédits : 4 Coefficients : 1	Initiation à la traduction 1	4	1		3h00		45h00	45h00	50%	50%
UE Transversale Code : UET 2.1 Crédits : 2 Coefficients : 1	Langue(s) étrangère(s) 3	2	1		1h30		22h30	45h00	50%	50%
Total semestre 3		30	15		22h30		315h00	450h00		

* travail complémentaire en consultation semestrielle

Appendix B

Techniques, Rules and Strategies in 'New Prospects'

Coping (*On the Move,* page 30)

When you face a vocabulary problem in a conversation, don't stop talking. Use one of the following strategies:

A. Use a synonym.

B. Explain the meaning of the word with a complete sentence.

C. Ask for help using one of the questions below.

a. I don't know how to say it/what you call it.

b. I don't know the word in English.

c. What is the English word for ...?

d. What is / How do you say (own language word) in English?

Coping (*On the Move,* page 58)

It is important to look at illustrations which accompany texts. They may help you in various ways.

1. Illustrations can help you guess the topic or the general idea of the text. So make sure you look at them before starting reading. This may help you better understand the text.

2. They can help you understand the meaning of difficult words.

Tips (*New prospects,* page 118)

TIPS

We can add the suffix **–y** to many nouns to form adjectives. E.g. sugar_ sugar**y**. The suffix -**y** means the state of. When a noun ends with a **consonant + vowel + consonant** (CVC), we double the last consonant if the concerned syllable is stressed. E.g. fat- fat**ty**.

Coping (*New prospects,* page 158)

It is not necessary to stop and check the meaning of difficult words in the dictionary every time you come across them in a text. Try to infer / deduce their meaning from context, asking yourself these questions:

- Which class does the difficult word belong to? Is it a verb, a noun, an adjective, or an adverb?
- Doesn't the author include **synonyms** or **antonyms** of the difficult word in the text?
- Doesn't the author paraphrase / explain the word in the text?
- Are there any prefixes or suffixes suggesting the meaning of the word?
- Are there any link words (however, besides, finally, etc.) that can help you identify meaning relationships in the text?

Tips (*New prospects*, page 169)

TIPS

In English, we can form **verbs** by adding suffix **–en** to some adjectives. Eg. His face **brightened** up when he heard the good news. The verb **brighten** is formed with the adjective **bright** and the suffix **–en**.

Tips (*New prospects,* page 170)

TIPS

We can form new adjectives and nouns by adding **prefix self-** to some nouns and **adjectives**.

E.g. Some people are **self-centred**.

The adjective **self-centred** is made of prefix **self-** and the adjective **centred**. The prefix **self-** replaces **himself, myself, herself, ourselves**, etc., hence, we can rewrite the example above as follows: some people are centred on **themselves.**

APPENDIX C

Discourse Comprehension –LMD YEAR 2

(Developed by **Mr Khelladi Mohammed**.

Assistant teacher at the university of Tlemcen)

What's your Blood Type?

If you live in or visit Japan, you may be asked, "What's your blood type?" The question has absolutely nothing to do with donating blood, illnesses, or medicine, at least not when asked by the average person. There's a popular notion that a person's blood type influences his personality, **temperament**, and romantic **compatibility.** Although far more popular in the island nation than the usual idea of star signs in the West, it's not so very different. In fact, it's hugely popular, as proven by the list of bestsellers for 2008. Four of the ten books to top the charts dealt with blood type and personality.

What can be said about personality types? Type A people are **earnest** and creative, but also **perfectionists.** Type B people are **spontaneous,** but also selfish and irresponsible. Type O can be **vain** and rude. On the positive side, they are curious and generous. As for people who are type AB, they are **arty**, but tend to be **moody** as well.

Of course, the scientific community in Japan considers the idea **a sham**. Unfortunately, not so the general public. Matchmaking services look to blood types when introducing men and women, for example. Women's magazines **stock** their pages with articles, romantic advice, and predictions too. Some companies have been known to assign projects based on the blood of employees. And more than a few employers regularly **query** interviewees about their blood type, with the intention of determining which **prospective** applicants may or may not provide a good fit with the existing corporate structure.

It boils down to discrimination, and even comes with a term: "bura-hara." "Bura" stands for blood, and "hara" stands for **harassment**. It also doesn't seem likely to diminish in popularity any time soon.

BBC Council

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1. Define: What does personality mean? Use the word in two (02) sentences of your own.

2. Agree or disagree? Why? (Oral task)

1. Your birth year has an effect on your personality.
2. Your birth month has an effect on your personality.
3. Your blood type has an effect on your personality.
4. Horoscopes should be followed closely because they offer good advice.
5. There are certain colours, numbers, and animals that are luckier than other colours, numbers, and animals.

3. True or False? If false, correct the sentence.

a. Many people in Japan believe blood type affects personality. T/F

b. According to the article, type A people aren't creative. They are moody too. T/F

c. According to the article, type O people are curious and generous. T/F

d. The scientific community in Japan supports the idea of blood types and personality. T/F

e. According to the article, categorizing personalities based on blood is a form of discrimination. T/F

4. Questions:

a. What does blood type often refer to in Japan?

b. What does the article say about the bestselling books in 2008?

c. How does the article describe people with type AB blood?

d. What do some matchmaking services do?

e. What do some companies do?

5. Vocabulary: match the words in column (a)   with the best choice in column (b)

Column (A)	Column (B)
a. temperament	1.self-loving
b. compatible	2. serious
c. earnest	3.posssible
d. spontaneous	4.fake
e. vain	5.unplanned
f. moody	6.fill
g. sham	7.character
h. stock	8.question
i. query	9.emotional
j. prospective	10.well -matched

6. Use the underlined words in the text in meaningful sentences of your own.

7. Many people across the globe are keen on reading horoscope pages in newspapers and magazines. Complete the dialogue below.

-James: Hi Alice .Tell me................................?

-Alice: It's ....What does.........................?

-James: Well, it says..

-Alice: Ouch! That's completely disappointing.

Appendix D

Vocabulary Levels Test

Version 2 (Schmitt *et al.* : 2001)

Name: ....

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

13. business
14. clock   --- 6 -- part of a house
15. horse   --- 3--- animal with four legs
16. pencil   --- 4--- something used for writing
17. shoe
18. wall

Some words are in the test to make it more difficult. You do not have to find a meaning for these words. If you have no idea of a word, do not guess. But if you think you might know the meaning, then you should try to find the answer.

The 2,000 word level

1 copy
2 event   -----end of highest
3 motor   point
4 pity   ----- this moves a car
5 profit   ----- thing made to be
6 tip   like another

1 accident
2 debt   ----- loud deep sound
3 fortune   ----- something you must
4 pride   pay
5 roar   ----- having a high opinion
6 6 thread   of yourself

1 coffee
2 disease   ----- money for work
3 justice   ----- a piece of clothing
4 skirt   ----- using the law in the
5 stage   right way
6 wage

1 arrange
2 develop   ----- grow
3 lean   ----- put in order
4 owe   ----- like more than
5 prefer   something else
6 6 seize

1 clerk
2 frame   ----- a drink
3 noise   ----- office worker
4 respect   ----- unwanted sound
5 theater
6 wine

1 blame
2 elect   ----- make
3 jump   ----- choose by voting
4 threaten   ----- become like water
5 melt
6 manufacture

1   dozen

2   empire   ----- chance

3   gift   ----- twelve

4   tax   ----- money paid to the

5   relief   government

6   opportunity

---

1   ancient

2   curious   ----- not easy

3   difficult   ----- very old

4   entire   ----- related to God

5   holy

6   social

---

1   admire   ----- make wider or

2   complain   longer

3   fix   ----- bring in for the first

4   hire   time

5   introduce   ----- have a high opinion

6   stretch   of someone

---

1   slight

2   bitter   ----- beautiful

3   lovely   ----- small

4   merry   ----- liked by many

5   popular   people

6   independent

The 3,000 word level

1   bull   ----- formal and serious

2   champion   manner

3   dignity   ----- winner of a sporting

4   hell   event

5   museum   ----- building where

6   solution   valuable objects are shown

---

1   muscle

2   counsel   ----- advice

3   factor   ----- a place covered

4   hen   with grass

5   lawn   ----- female chicken

6   atmosphere

---

1   blanket

2   contest   ----- holiday

3   generation   ----- good quality

4   merit   ----- wool covering

5   plot   used on beds

6   vacation

---

1   abandon

2   dwell   ----- live in a place

3   oblige   ----- follow in order to

4   pursue   catch

5   quote   ----- leave something

6   resolve   permanently

---

1   comment

2   gown   ----- long formal dress

3   import   ----- goods from

4   nerve   foreign country

5   pasture   ----- part of the body

6   tradition   which carries feeling

---

1   assemble

2   attach   ----- look closely

3   peer   ----- stop doing

4   quit   something

5   scream   ----- cry out loudly in

6   toss   fear

---

1   pond

2   angel   ----- group of animals

3   frost   ----- spirit who serves God

4   herd   ----- managing business

5   fort   and affairs

6   administration

---

1   drift

2   endure   ----- suffer patiently

3   grasp   ----- join wool threads

4   knit   together

5   register   ----- hold firmly with

6   tumble   your hands

1	brilliant			1	aware		
2	distinct	----- thin		2	blank	----- usual	
3	magic	----- steady		3	desperate	----- best or most	
4	naked	----- without clothes		4	normal	important	
5	slender			5	striking	----- knowing what is	
6	stable			6	supreme	happening	

Academic Vocabulary

1	area	----- written agreement		1	adult	----- end	
2	contract	----- way of doing		2	véhicules	----- machine used to	
3	definition	something		3	exploitation	move people or	
4	evidence	----- reason for believing		4	infrastructure	goods	
5	method	something is or is		5	termination	----- list of things to do	
6	role	not true		6	schedule	at certain times	

1	debate			1	alter	----- change	
2	exposure	----- plan		2	coincidence	----- say something	
3	integration	----- choice		3	deny	is not true	
4	option	----- joining something		4	devote	----- describe	
5	scheme	into a whole		5	release	clearly and exactly	
6	stability			6	specify		

1	access			1	correspond	----- keep	
2	gender	----- male or female		2	diminish	----- match or be in	
3	psychology	----- study of the		3	emerge	agreement with	
4	license	mind		4	highlight	----- give special	
5	orientation	----- entrance or way		5	invoke	attention to something	
6	implementation	in		6	retain		

1	edition	----- collecting things		1	bond	----- make smaller	
2	accumulation	over time		2	channel	----- guess the number	
3	guarantee	----- promise to repair a		3	estimate	or size of	
4	media	broken product		4	identify	something	
5	motivation	----- feeling a strong		5	mediate	----- recognizing and	
6	phenomenon	reason or need to		6	minimize	naming a person	
		do something				or thing	

1	explicit			1	abstract		
2	final	----- last		2	adjacent	----- next to	
3	negative	----- stiff		3	neutral	----- added to	
4	professional	----- meaning 'no' or		4	global	----- concerning	
5	rigid	'not'		5	controversial	the whole	
6	sole			6	supplementary	world	

The 5,000 word level

1   analysis
2   curb   ----- eagerness
3   gravel   ----- loan to buy a house
4   mortgage   ----- small stones mixed
5   scar   with sand
6   zeal

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

1   cavalry
2   eve   ----- small hill
3   ham   ----- day or night before a
4   mound   holiday
5   steak   ----- soldiers who fight
6   switch   from horses

1   chart
2   forge   ----- map
3   mansion   ----- large beautiful
4   outfit   house
5   sample   ----- place where
6   volunteer   metals are made
                          and shaped

1   circus
2   jungle   ----- musical instrument
3   trumpet   ----- seat without a back
4   sermon   or arms
5   stool   ----- speech given by a
6   nomination   priest in a church

1   revive   ----- think about
2   extract   deeply
3   gamble   ----- bring back to
4   launch   health
5   provoke   ----- make
6   contemplate   someone angry

1   shatter
2   embarrass   ----- have a rest
3   heave   ----- break suddenly into
4   obscure   small pieces
5   demonstrate   ----- make someone feel
6   relax   shy or nervous

1   decent
2   frail   ----- weak
3   harsh   ----- concerning a
4   incredible   city
5   municipal   ----- difficult to
6   specific   believe

1   correspond
2   embroider   ----- exchange letters
3   lurk   ----- hide and wait for
4   penetrate   someone
5   prescribe   ----- feel angry about
6   resent   something

1   adequate
2   internal   ----- enough
3   mature   ----- fully grown
4   profound   ----- alone away
5   solitary   from other
6   tragic   things

The 10,000 word level

1   alabaster
2   tentacle   ----- small barrel
3   dogma   ----- soft white stone
4   keg   ----- tool for shaping
5   rasp   wood
    chandellier

1   throttle
2   convoy   ----- kindness
3   lien   ----- set of musical
4   octave   notes
5   stint   ----- speed control
6   benevolence   for an engine

1   bourgeois
2   brocade   ----- middle class people
3   consonant   ----- row or level of
4   prelude   something
5   stupor   ----- cloth with a pattern
6   tier   or gold or silver
                            threads

1   scrawl
2   cringe   ----- write carelessly
3   immerse   ----- move back
4   peek   because of fear
5   contaminate   ----- put something
6   relay   under water

1. alcove
2. impetus   ----- priest
3. maggot   ----- release from prison
4. parole   early
5. salve   ----- medicine to put on
6. vicar   wounds

1   blurt   ----- walk in a proud
2   dabble   way
3   dent   ----- kill by squeezing
4   pacify   someone's throat
5   strangle   ----- say suddenly
6   swagger   without thinking

1   alkali   ----- light joking talk
2   banter   ----- a rank of British
3   coop   nobility
4   mosaic   ----- picture made of
5   stealth   small pieces of
6   viscount   glass or stone

1   illicit
2   lewd   ----- immense
3   mammoth   ----- against the law
4   slick   ----- wanting revenge
5   temporal
6   vindictive

1   dissipate
2   flaunt   ----- steal
3   impede   ----- scatter or vanish
4   loot   ----- twist the body about
5   squirm   uncomfortably
6   vie

1   indolent
2   nocturnal   ----- lazy
3   obsolete   ----- no longer
4   torrid   used
5   translucent   ----- clever and
6   wily   tricky

Appendix E

Productive Vocabulary Levels Test

(Laufer & Nation, 1995)

The 2,000-word level

He was riding a <u>bicycle.</u>

They will restore the house to its <u>orig</u>   state.

Each room has its own <u>priv</u>   bath and WC.

The <u>to</u>   number of students at the university is 12,347.

They met to <u>ele</u>   a president.

Many companies were <u>manufac</u>   computers.

The lakes become ice-free and the snow <u>mel</u>   .

They managed to steal and <u>hi</u>   some knives.

I asked the group to <u>inv</u>   her to the party.

She shouted at him for <u>spoi</u>   her lovely evening.

You must spend less until your <u>deb</u>   are paid.

His mother looked at him with love and <u>pri</u>   .

The wind <u>roa</u>   through the forest.

There was <u>fle</u>   and blood everywhere.

She earns a high <u>sal</u>   as a lawyer.

The sick child had a very high <u>tempe</u>   .

The <u>bir</u>   of her first child was a difficult time.

My favourite <u>spo</u>   is football.

In A.D. 636 an Arab army won a famous <u>vic</u>   over another army.

The 3,000-word level

They need to spend less on <u>adminis</u>   and more on production.

He saw an <u>ang</u>___ from Heaven.

The entire <u>he</u>___ of goat was killed.

Two old men were sitting on a park <u>ben</u>___ and talking.

She always showed <u>cha</u>___ towards those needed help.

He had a big house in the Cape <u>Pro</u>___.

Oh Harold <u>dar</u>___, I am sorry. I did not mean to upset you.

Judy found herself listening to the last <u>ec</u>___ of her shoes on the hard floor.

He cut three large <u>sli</u>___ of bread.

He sat in the shade beneath the <u>pa</u>___ trees.

He had a crazy <u>sch</u>___ for perfecting the world.

They get a big <u>thr</u>___ out of car-racing.

At the beginning of their journey they <u>encoun</u>___ an English couple.

Nothing <u>illu</u>___ his selfishness more clearly than his behaviour to his wife.

He took the bag and <u>tos</u>___ it into the bushes.

Every year she looked forward to her <u>ann</u>___ holiday.

There is a <u>defi</u>___ date for the wedding.

His voice was loud and <u>sav</u>___ , and shocked them all to silence.

The 5,000-word level

Some people find it difficult to become independent. Instead they prefer to be tied to their mother's <u>ap</u>___ strings.

After finishing his degree, he entered upon a new <u>ph</u>___ in his career.

The workmen cleaned up the <u>me</u>___ before they left.

On Saturday, in his last <u>se</u>___ in church, the priest spoke against child abuse.

I saw them sitting on <u>st</u>___ at the bar drinking beer.

Her favourite musical instrument was a <u>tru</u>___.

The building is heated by modern heating <u>appa</u>___ .

He received many com _____ on his dancing skill.

People manage to buy houses by raising a mor _____ from a bank.

At the bottom of a blackboard there is a le _____ for chalk.

After falling of his bicycle, the boy was covered with bru _____ .

The child was holding a doll in her arms and hu _____ it.

We'll have to be inventive and de _____ a scheme for earning more money.

The picture looks nice; the colours bl _____ really well.

Nuts and vegetables are considered who _____ food.

The garden was full of fra _____ flowers.

Many people feel depressed and gl _____ about the future mankind.

The University Word List Level

The afflu _____ of the western contrasts with the poverty in other parts.

The book covers a series of isolated epis _____ from history.

Farmers are introducing innova _____ that increase the productivity per worker.

They are suffering from a vitamin defic _____ .

There is a short term oscill _____ of the share index.

They had other means of acquiring wealth, pres _____ , and power

The parts were arranged in an arrow-head configu _____ .

The learners were studying a long piece of written disc _____ .

People have proposed all kinds of hypot _____ about what these things are.

The giver prefers to remain anony _____ .

The elephant is indig _____ to India.

You'll need a mini _____ deposit of $20,000.

Most towns have taken some eleme _____ civil defence precaution.

The presentation was a series of sta _____ images.

This action was necessary for the <u>ulti   </u> success of the revolution.

He had been <u>expe   </u> from school for stealing.

The lack of money depressed and <u>frust   </u> him.

The money from fruit-picking was a <u>suppl   </u> to their regular income.

The 10,000-word level

He wasn't serious about art. He just <u>da   </u> in it.

Her parents will never <u>acq   </u> to such an unsuitable marriage.

Pack the dresses so that they won't <u>cre   </u> .

Traditionally, men were expected to <u>nu   </u> women and children.

Religious people would never <u>bl   </u> against God.

The car <u>sk   </u> on the wet road.

The politician delivered an arrogant and <u>pom   </u> speech.

The romans used to hire <u>au   </u> troops to help them in their battles.

At the funeral, the family felt depressed and <u>mo   </u>.

His <u>pu   </u> little arms and legs looked pathetic.

A <u>vol   </u> person will change moods easily.

The debate was so long and tedious that it seemed <u>int   </u> .

Drink it all and leave only the <u>dre   </u> .

Hungry dog will <u>sa   </u>at the smell of food.

The girl's clothes and shoes were piled up in a <u>ju   </u> on the floor.

Some monks live apart from society in total <u>sec   </u> .

The enemy suffered heavy <u>cas   </u> in the battle.

When the Xmas celebration and <u>rev   </u> ended, there were plenty of drunk people everywhere.

Appendix F

Vocabulary Knowledge Scale 1

Dear student,

Your knowledge about the listed words in the table will be tested. Please, fill it in by ticking the appropriate box according to the grades shown in the following box (the self-report categories).

Self-report categories

I.   I don't remember having seen this word before.
  II.   I have seen this word before, but I don't know what it means.
 III.   I have seen this word before, and I think it means .... (synonym or translation.)
 IV.   I have seen this word. It means .... (synonym or translation.).
  V.   I can use this word in a sentence : .... (write a sentence.)
       (If you do this section, please also do section IV)

word	I	II	III	VI	V
1. snigger					
2. stagger					
3. lurk					
4. creep					
5. grin					
6. strut					
7. creep					
8. vanish					
9. slippers					
10. urchin					
11. farthing					
12. gleaming					
13. crack					
14. rag					
15. maiden					
16. bulldoze					

17. shabby					
18. pace					
19. sterling					
20. numbed					
21. stove					

Appendix G

Students' Questionnaire (Version 1)

Dear student,

This questionnaire is a data collection tool to learn about students' vocabulary learning and attrition. Your contribution will be of great help to make the investigation achieve its objectives. You are kindly requested to answer the questions by circling your choices or by completing your own information and comments whenever necessary.

_____

Rubric one : Students' background data.

1. What is your age?   ………………
2. What is your email address and/or telephone number?
   ………………………..
3. How many years have you been studying English?   .... years.

Please, tell us what you think about the following statements using the following five-point scales. Circle your choice.

Rubric two : Students' motivation

4. Why do you learn English?

strongly disagree (1)	disagree (2)	neutral (3)	agree (4)	strongly agree (5)

   a. I like studying English.

       1   2   3   4   5

   b. I like studying English because it is the language of globalization.

       1   2   3   4   5

c. I like studying English because it allows me to communicate at ease when abroad.

     1   2   3   4   5

d. I like studying English because I plan to travel abroad where English is the language spoken.

     1   2   3   4   5

e. I like studying English because I plan to work as a teacher of English.

     1   2   3   4   5

f. I like studying English because I plan to work in a job where English can be used as a means of communication.

     1   2   3   4   5

g. I like studying English because it enables me to read English books, newspapers and magazines.

     1   2   3   4   5

h. I like studying English because it enables me to watch TV programmes and films in English.

     1   2   3   4   5

i. I like studying English because it enables me to listen to programmes and songs in English.

     1   2   3   4   5

j. I like studying English because it enables me to browse the internet to get information.

     1   2   3   4   5

k. I like studying English because it enables me to chat and write email messages to speakers of English.

     1   2   3   4   5

Please, if there are any other reasons, mention them

....

....

Rubric three : Students' attitude towards learning English.

5. What do you think about learning English?

strongly disagree (1)	disagree (2)	neutral (3)	agree (4)	strongly agree (5)

    a. Learning English is fun.

         1   2   3   4   5

    b. I enjoy learning English.

         1   2   3   4   5

    c. English is part of my success in my future job.

         1   2   3   4   5

    d. Learning English can help me get a better job.

         1   2   3   4   5

    e. Learning English is a sign of a well-rounded person.

         1   2   3   4   5

Rubric four : Students' opinion about the presented material and teachers' methodology in teaching vocabulary in Discourse Comprehension module.

6. What do you think about the texts you studied and the way your teacher taught you vocabulary in the module of Discourse Comprehension?

strongly disagree (1)	disagree (2)	neutral (3)	agree (4)	strongly agree (5)

    a. The teacher provided us with texts that interested us.

         1   2   3   4   5

    b. The teacher provided us with activities that helped us understand the texts.

         1   2   3   4   5

    c. The teacher provided us with vocabulary activities that helped us understand the new words.

1   2   3   4   5

d. The teacher provided us with activities that helped us practise the studied words.

1   2   3   4   5

e. The teacher provided us with activities that helped us retain the studied words.

1   2   3   4   5

f. The teacher provided us with activities that helped us consolidate vocabulary previously studied.

1   2   3   4   5

Rubric five: Students' exposure to English / new vocabularies.

7. How often do you get in contact with the English language where encounter new English words?

Never (1)	several times a month (2)	once a week (3)	several times a week (4)	every day (5)

a. I talk in English with my friends/classmates.

1   2   3   4   5

b. I read newspapers, magazine and books in English.

1   2   3   4   5

c. I watch TV programmes and films in English in my spare time.

1   2   3   4   5

d. I listen to music in English in my spare time.

1   2   3   4   5

e. I browse the internet in my spare time.

1   2   3   4   5

f. I chat with and write email messages to English language speakers in my spare time.

1   2   3   4   5

g. I attend classes in private institutes to improve my English.

    1   2   3   4   5

Rubric six: Students' use of vocabulary learning strategies.

A. Use of discovery strategies.

8. What do you do to find out the meaning of a new word you encounter?

never (1)	rarely (2)	sometimes (3)	often (4)	always (5)

a. I infer the meaning of new words from the context.

    1   2   3   4   5

b. I refer to a dictionary.

    1   2   3   4   5

c. I ask a classmate.

    1   2   3   4   5

d. I ignore the unknown word.

    1   2   3   4   5

Please, if there is anything else you do, mention it.

....

....

....

B. Use of consolidation strategies.

What do you do to memorize a new vocabulary item?

never (1)	rarely (2)	sometimes (3)	often (4)	always (5)

a. I repeat the word many times.

      1   2   3   4   5

b. I image word's meaning.

      1   2   3   4   5

c. I connect the word with its synonym(s) and antonym(s).

      1   2   3   4   5

d. I use cognate(s).

      1   2   3   4   5

e. I use the keyword method.

      1   2   3   4   5

f. I group words together and study them.

      1   2   3   4   5

g. I review my word list.

      1   2   3   4   5

Please, if there is anything else you do, mention it.

....

....

....

Rubric seven: Reviewing the studied vocabularies.

9. How often do you review your studied vocabulary?

strongly disagree (1)	disagree (2)	neutral (3)	agree (4)	strongly agree (5)

a. I review my studied vocabulary every week.

      1   2   3   4   5

b. I review my studied vocabulary every day.

      1   2   3   4   5

c. I review my studied vocabulary by the approach of the exams.

1 2 3 4 5

d. I never review my studied vocabulary.

1 2 3 4 5

Rubric eight: Forgetting vocabulary.

10. Do you forget vocabulary you studied?

Yes   No

If yes, please circle your choice.

11. I think I may have forgotten some English vocabulary because ...

strongly disagree (1)	disagree (2)	neutral (3)	agree (4)	strongly agree (5)

a. I don't review the studied words regularly.

1 2 3 4 5

b. I don't review the studied words at all.

1 2 3 4 5

c. I didn't learn them seriously / very well.

1 2 3 4 5

d. I don't use English very much outside classes.

1 2 3 4 5

e. I don't focus very much on new vocabulary when using English.

1 2 3 4 5

f. I don't have, initially, good vocabulary knowledge.

1 2 3 4 5

g. I use only a limited range of vocabulary when I use English.

1 2 3 4 5

h. I think some words are very easy to forget.

1 2 3 4 5

If there are any other causes for forgetting, please, mention them.

....

....
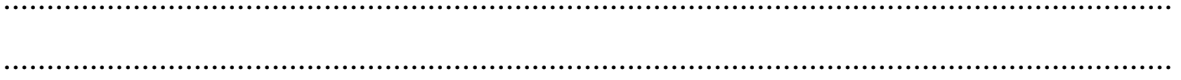
Thank you very much for your collaboration.

Appendix H

Students' Questionnaire (Version 2)

Dear student,

This questionnaire is a data collection tool to learn about students' vocabulary learning and attrition. Your contribution will be of great help to make the investigation achieve its objectives. You are kindly requested to answer the questions by circling your choices or by completing your own information and comments whenever necessary.

_____

Rubric one : Student' data.

1. Email address and / or telephone number: ……………………………..

Please, tell us what you think about the following statements using the following five-point scales. Circle your choice.

Rubric two : Students' motivation.

2. Why do you learn English?

strongly disagree (1)	disagree (2)	neutral (3)	agree (4)	strongly agree (5)

    a. I like studying English.

        a.   2   3   4   5

    b. I like studying English because it is the language of globalization.

        1   2   3   4   5

    c. I like studying English because it allows me to communicate at ease when I travel.

        1   2   3   4   5

d. I like studying English because I plan to travel abroad where English is the language spoken.

     1   2   3   4   5

e. I like studying English because I plan to work as a teacher of English.

     1   2   3   4   5

f. I like studying English because I plan to work in a job where English can be used as a means of communication.

     1   2   3   4   5

g. I like studying English because it enables me to read English books, newspapers and magazines.

     1   2   3   4   5

h. I like studying English because it enables me to watch TV programmes and films in English.

     1   2   3   4   5

i. I like studying English because it enables me to listen to programmes and songs in English.

     1   2   3   4   5

j. I like studying English because it enables me to browse the internet to get information.

     1   2   3   4   5

k. I like studying English because it enables me to chat and write email messages to speakers of English.

     1   2   3   4   5

Please, if there are any other reasons, mention them

....

....

....

Rubric three : Students' attitude towards learning English.

3. What do you think about learning English?

strongly disagree (1)	disagree (2)	neutral (3)	agree (4)	strongly agree (5)

    a. Learning English is fun.

       1   2   3   4   5

    b. I enjoy learning English.

       1   2   3   4   5

    c. English is part of my success in my future job.

       1   2   3   4   5

    d. Learning English can help me get a better job.

       1   2   3   4   5

    e. Learning English is a sign of a well-rounded person.

       1   2   3   4   5

Rubric four : Students' exposure to English / new vocabularies.

4. How often do you get in contact with English where you encounter new English words?

Never (1)	several times a month (2)	once a week (3)	several times a week (4)	every day (5)

    a. I talk in English with my friends/classmates.

       1   2   3   4   5

    b. I read newspapers, magazine and books in English.

       1   2   3   4   5

    c. I watch TV programmes and films in English in my spare time.

       1   2   3   4   5

    d. I listen to music in English in my spare time.

       1   2   3   4   5

    e. I browse the internet in my spare time.

       1   2   3   4   5

    f. I chat with and write email messages to English language speakers in my spare time.

       1   2   3   4   5

    g. I attend classes in private institutes to improve my English.

       1   2   3   4   5

Rubric five: Students' use of vocabulary learning strategies.

    A. Use of discovery strategies.

    5. What do you do to find out the meaning of a new word you encounter?

never (1)	rarely (2)	sometimes (3)	often (4)	always (5)

    a. I infer the meaning of new words from the context.

       2   2   3   4   5

    b. I refer to a dictionary.

       2   2   3   4   5

    c. I ask a classmate.

       2   2   3   4   5

    d. I ignore the unknown word.

       1   2   3   4   5

Please, if there is anything else you do, mention it

....

....

....

B. Use of consolidation strategies.

6. What do you do to memorize a new vocabulary item?

never (1)	rarely (2)	sometimes (3)	often (4)	always (5)

a. I repeat the word many times.

        1   2   3   4   5

b. I image word's meaning.

        1   2   3   4   5

c. I connect the word with its synonym(s) and antonym(s).

        1   2   3   4   5

d. I use cognate(s).

        1   2   3   4   5

e. I use the keyword method.

        1   2   3   4   5

f. I group words together and study them.

        1   2   3   4   5

g. I review my word list.

        1   2   3   4   5

Please, if there is anything else you do, mention it

....

....

....

Rubric six: Reviewing the studied vocabularies.

7. How often do you review your studied vocabulary?

strongly disagree (1)	disagree (2)	neutral (3)	agree (4)	strongly agree (5)

a. I review my studied vocabulary every week.

        1   2   3   4   5

    b. I review my studied vocabulary every day.

        1   2   3   4   5

    c. I review my studied vocabulary by the approach of the exams.

        1   2   3   4   5

    d. I never review my studied vocabulary.

        1   2   3   4   5

8. Was the studied vocabulary in Discourse Comprehension module useful in this year's studying?

not at all (1)	very little (2)	little (3)	much (4)	very much (5)

Rubric seven: Forgetting vocabulary.

9. Do you forget an amount of vocabulary you studied?

      Yes   No

If yes, please circle your choice.

10. I think I may have forgotten some English vocabulary because ...

strongly disagree (1)	disagree (2)	neutral (3)	agree (4)	strongly agree (5)

    a. I don't review the studied words regularly.

        1   2   3   4   5

    b. I don't review the studied words at all.

        1   2   3   4   5

    c. I didn't learn them very well.

        1   2   3   4   5

    d. I don't use English very much outside classes.

        1   2   3   4   5

    e. I don't focus very much on new vocabulary when using English.

        1   2   3   4   5

f. I don't have, initially, good vocabulary knowledge.

  1   2   3   4   5

g. I use only a limited range of vocabulary when I use English.

  1   2   3   4   5

h. I think some words are very easy to forget.

  1   2   3   4   5

If there are any other reasons for forgetting, please, mention them.

....

....

....

Thank you very much for your collaboration.

Appendix I

Vocabulary through Facebook
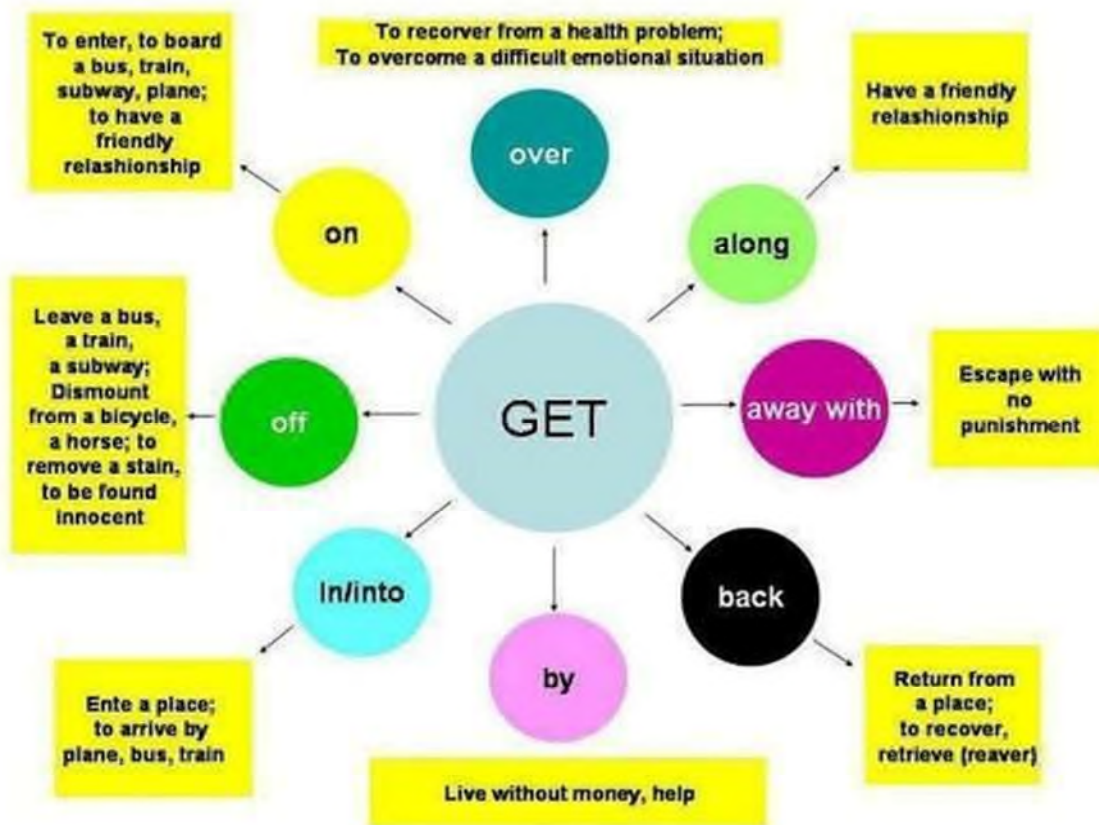
The picture collects a number of verbs related to illenesses.

At the doctor's

to have a cold | to cut a finger | to have a broken leg | to have a headache | to have a black eye

to burn a finger | to have a fever | to have a sore throat | to have a toothache | to blow your nose

to sprain an ankle | to hurt an arm | to be in pain | to cough | to get an injection

The picture collects the different types of shoes.

shoes

slingback | mule | pumps | flats | clogs | oxfords

stiletto (*also* spike heel) | wedge | platform | kitten heels | slippers | Loafers™

sandal | jelly | flip-flops (*also* thongs) | moccasins | sneakers | wingtips

rubber boots | boots | cowboy boot | hiking boots | high-tops

This pictures includes a number of phrasal verbs with 'get'.

The picture holds the different possible ways to express agreement.

Ways To Say - I Agree

You took the words right out of my mouth

I could not have said it any better

I could not agree with you more

Our thoughts are parallel

You can say that again

We are in agreement

You got that straight

My thoughts exactly

We are of one mind

You got that right

I agree with you

We are in accord

You are so right

Affirmative

You got it

I concur

I agree

Amen

Yup

English The Easy Way
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VOCABULARY ATTRITION IN THE DISCOURSE COMPREHENSION MODULE : THE CASE OF SECOND-YEAR EFL STUDENTS AT THE UNIVESITY OF TLEMCEN

ملخص :

يدور هذا البحث حول التناقص في المفردات وفقدانها عند طلاب اللغة الإنجليزية للسنة الثانية في جامعة تلمسان ، ونحاول كشفَ العوامل التي تؤدي إلى هذه الظاهرة. تُبيّنُ النتائج أن مستوى الكفاءة المنخفض وعدم استخدام استراتيجيات تعلّم المفردات لهما تأثيرٌ مباشرٌ على نسيانها. إنّ عدمَ استعمال اللغة خلال العطلة الصيفية، والموقفَ الإيجابيّ والتحفيز العالي، ومنهجية تدريس المفردات لا يبدو أنها عوامل لها تأثير على هذا النسيان. ومن هذا يمكن الاستنتاج أنه بإمكاننا التقليل من استنزاف المفردات شريطة أن المتعلمين المتحفزين يبذلوا الجهود الكافية للتعلم ويستخدموا استراتيجيات تعلمها على نحو كاف، بالإضافة إلى تعرضهم باستمرار للغة. وقد تبيّن أيضا أن المفردات الإنتاجية كانت أكثر عرضة للنسيان و أن استنزاف الأفعال أقوى من نسيان الأسماء والصفات.

الكلمات المفتاحية : استنزاف اللغة ، استنزاف المفردات ، اللغة الإنجليزية كلغة أجنبية ، المتعلمون .

Résumé :

Cette recherche s'intéresse à l'attrition du vocabulaire chez les étudiants de deuxième année langue anglaise à l'Université de Tlemcen. Nous essayons de découvrir les facteurs qui conduisent à ce phénomène. Les résultats montrent que le faible niveau d'efficacité et de l'utilisation de stratégies d'apprentissage de vocabulaire ont un effet direct sur l'attrition. L'absence d'utilisation de la langue pendant les vacances d'été, l'attitude positive, la bonne motivation ainsi que la méthodologie de l'enseignement du vocabulaire ne semblent pas être des facteurs ayant un impact sur cet oubli. De cela, il peut être conclu que nous pouvons réduire l'épuisement du vocabulaire chez les apprenants à condition qu'ils soient motivés et qu'ils fassent les efforts nécessaires pour apprendre et utiliser des stratégies d'apprentissage de manière adéquate, en plus de leur exposition en permanence à la langue. Il a été également constaté que les verbes sont plus susceptibles d'être affecté par l'attrition que les noms et les adjectifs soit productifs ou réceptifs.

Mots clés : Attrition de la langue , attrition du vocabulaire , Anglais langue étrangère , apprenants.

Summary :

Vocabulary attrition is the concern of the present investigation which tries to explore the main factors having an impact on the lexical attrition observed in second-year EFL students at the University of Tlemcen. The results reveal that the low proficiency level and inadequate use of vocabulary learning strategies have a direct impact on word attrition. However, disuse over summer vacation, positive attitude, higher motivation and vocabulary teaching methodology do not seem to be reliable factors influencing vocabulary forgetfulness. It can be drawn that attrition can be reduced if the learners exert enough efforts to adequately learn and use vocabulary learning strategies; in addition, being constantly exposed to the language can help in reducing attrition. It was also found out that productive vocabulary was more forgotten than the receptive, and that verbs were more affected by attrition than nouns and adjectives both receptively or productively.

Key words : Language attrition , Vocabulary attrition , English as a foreign language , Learners.

Summary of the Thesis

1. Introduction

Language attrition sprang out as a new field of research as regression in language performance in foreign language learners appeared. It was firstly used to describe a decline in the foreign language performance by individuals. Lambert and Freed (1982) noticed that the students learning an Indian language experienced a loss in language skills even with the large amount of time spent to learn it. This observation on the loss of language skills inspired the researchers to organize a national conference at the University of Pennsylvania in 1980 dedicated to the theoretical background of research in the field. This was the beginning of studies in this new field of research.

2. Statement of the Problem

Due to the incremental nature of vocabulary learning, EFL learners (and language learners in general) come across new words continuously and they are intended to make efforts to learn as much as possible in order to enrich their lexical store and reach a good proficiency level and a mastery of the language. Yet, second-year EFL learners suffer from vocabulary attrition. It has been noticed in the module of discourse comprehension (a module in which learners study and are supposed to develop their reading skill) that newly encountered lexis is forgotten. Sometimes it is a complete loss, other times they can't retrieve the already studied words (whether the words or their meanings).

It is evident that language learning can't happen without backsliding, but what has been astonishing is that this happens largely and during the academic year. What is commonly known about language attrition is that it happens as a result of disuse, but what is alarming is that the target subjects are still enrolled in their studies. What intrigues the researcher, then, is the search for the factors causing the

target students' lexical attrition. Thus, the factors tackled actually are: the initial proficiency level, the inadequate or limited use of vocabulary learning strategies, disuse over summer vacation, vocabulary teaching methodology, and motivation and attitude. In addition, the type of vocabulary, be it receptive or productive, and the part of speech, whether verbs, nouns or adjectives, more prone to attrition are also studied.

3. Purpose of the Study

The present exploratory and longitudinal investigation tries humbly to contribute to the field of second language attrition and its importance lies in finding the causes of vocabulary attrition in order to gain deeper understanding of the phenomenon. The findings may uncover considerable amount of information as regards vocabulary instruction and learning at the university level. It can elucidate the variables that may have an impact on vocabulary attrition. Besides, it aims at finding out the type of vocabulary and the part of speech more prone to be attritted.

4. Research Questions and Hypotheses

The present investigation aiming at investigating vocabulary attrition in second-year EFL students at the University of Tlemcen endeavours to answer the following research questions:

1. Do EFL learners suffer from retrieval failure or complete loss of the learnt vocabulary in discourse comprehension module at the University of Tlemcen?
2. What are the factors that have an impact on students' vocabulary attrition?
3. Are productive words attritted more than receptive words?
4. Which part(s) of speech is (are) more prone to attrition?

The following hypotheses are suggested to these questions:

1. EFL university students suffer in some cases from retrieval failure and in most cases from complete loss of the studied vocabulary.

2. Students' vocabulary attrition may be due to: the lower initial proficiency level, the inadequate use of vocabulary learning strategies, language disuse, students' attitude and motivation, and vocabulary teaching methodologies.

3. Productive vocabulary is more prone to be forgotten than receptive.

4. Nouns undergo more attrition than verbs and adjectives.

5. Research Methodology

The researcher opted for a longitudinal study to explore the phenomenon over a period of 12 months and observe the changes in vocabulary forgetting. She multiplied the instruments of research, thus she used six tests, two questionnaires and an interview along the three intervals of the investigation. A Vocabulary Levels Test (Schmitt *et al.*, 2001) and a Productive Vocabulary Levels Tests (Laufer & Nation, 1995) are used to know about the target students' proficiency level. A Receptive Vocabulary Test and another Productive Vocabulary Test developed by the researcher are introduced to probe their receptive and productive vocabulary attrition in the trees phases of the study. Two Vocabulary Knowledge Scales (1 and 2) to learn about the effectiveness of the use of vocabulary learning strategies and the vocabulary teaching methodologies introduced along the academic year. An interview and two questionnaires (version 1 and 2) are conducted with the students at Time 1 and Time 3 to know about their motivation and attitude, the use of VLS,

their opinions about the teaching methodology and the causes of their vocabulary forgetting.

6. Chapters

The thesis is made up of four interrelated chapters. Each of them deals with a part of the work; from literature review to description of the setting and methodology of the research, then an analysis of the results and suggestions.

6.1. Chapter One

The first chapter deals with the literature review related to vocabulary attrition. It attempts first to provide an overview on language attrition, being the background of lexical attrition, shedding light on its types and main hypotheses. Second, it is thought necessary to have an idea on vocabulary and forgetting. Therefore, the nature of vocabulary knowledge, vocabulary storage into memory, which type of memory it is stored in, the relation between memory and forgetting and the theories of forgetting, is what is presented in the second part of the chapter. The factors in relation to lexical attrition dealt with in the present study are depicted in the third part. These concern the attriters' proficiency level prior to the onset of attrition, vocabulary learning strategies used by the learners, receptive/productive vocabulary knowledge, vocabulary teaching methodology, the period of disuse and learners motivation and attitude towards the language being learnt. The last part tackles some selected investigations on the field; these are described and their results are reported to be compared to the actual study. Still some methodological issues are rising in second language attrition research. These are discussed at the end of the chapter.

From the provided literature, vocabulary attrition can be defined as the deterioration in lexical knowledge of speakers of a foreign language, being the type of language attrition dealt with in the present work. As a result of disuse, low

proficiency level, low motivation, negative attitude towards the target language, inadequate learning or teaching or else, vocabulary knowledge wears off. The causes, patterns and rate of attrition are the concern of scholars interested in the field. Some hypotheses have been suggested to describe the nature of the attrition process, notably, the regression hypothesis, the critical threshold hypothesis and the inverse hypothesis. These hypotheses seem to call for more laborious work in the field to be maintained or rejected.

The present investigation attempts to probe some factors which can have an impact on lexical attrition on the target population. To these factors a review of literature is presented. They are the initial proficiency level, the use of vocabulary learning strategies, be it discovery and memory strategies, the type of word knowledge, then, receptive and productive vocabulary, vocabulary teaching methodology, disuse over summer vacation, and attitude and motivation. These are going to be compared to findings of key studies already conducted.

The main studies in relation to lexical attrition, even though many investigated the different language skills, provided results that contribute efficiently to explain the phenomenon of attrition. Those referred to, to cite but some, are Bahrick's (1984), Weltens's (1989), Morshedian's (2008) and Alharthi's (2012) study.

The only research which probed the effect behind the use of vocabulary learning strategies, conducted by Alharthi (2012) revealed that the use of memory strategies, specifically, repetition with Arabic word translation is not so helpful for a better retention; students lost receptive vocabulary by the use of this strategy because they lower the opportunities to practise the L2.

6.2.   Chapter Two

The second chapter tries to describe the teaching situation in which the investigation was conducted in addition to its design. The first part attempts to

describe language policy and the ELT situation in Algeria from the middle school to the university level exposing the objectives of and perspectives behind teaching English within the newly adopted reforms (2003). It tries as well to give an overview of the LMD system and its adaptation in higher education. Moreover, it describes the English Department at the University of Tlemcen.

As the investigation reflects on action research in foreign language education, the second part of the chapter frames the conducted study. It provides the overall objectives motivating the research and the study design; this latter is presented in a detailed account shedding light on the data elicitation instruments.

It can be drawn that language policy in Algeria passed through three phases (Benrabah, 2007a) moving from French language domination after the independence with Arabic growing steadily to a gradual imposition of Arabic in education. This arabisation policy was less assertive as there was a transition towards the free economic market; consequently, reforms at the educational level were introduced to which hostility was encountered. English was hoped to replace French after the independence as it held bitter memories, particularly, at that time; however, it seemed that it was not a success.

What makes the real situation of languages in Algeria is that Arabic is the official language, Arabic and French make the bilingual situation, and English, the language of globalisation, technology and international communication makes its first steps towards a widely used language by the Algerians. In this vein, measures were taken to promote the widespread of the language, particularly after the civil war (in the 1990s) where a large number of francophone intellectuals were exiled, and after oil prices rose and improved the economy on the macroeconomic level, and the socialist economy shifted to the market economy (Belmihoub, 2012).

Measures were taken to improve the educational system as a whole and language policy in particular with a special focus on English as the language of globalisation. Reforms touched the middle and secondary schools by the implementation of the imported Competency-Based .

Hence to cope with globalisation, higher education underwent changes resulting in the implementation of the European educational system known as the LMD system in 2004. It was until 2008 that the system was introduced at the level of English Department at the University of Tlemcen.

The chapter described the experiment with the target population. The longitudinal study was conducted over three intervals (Time 1, 2, 3). Testing the students in question started from February 2014 until May 2015. A number of tools was used to collect the required data, namely, Vocabulary Level Test (Schmitt *et al.*, 2001), Productive Vocabulary Level Test (Laufer & Nation, 1995), Vocabulary Knowledge Scale 1 and 2, Receptive Vocabulary Test and Productive Vocabulary Test (developed by the researcher), in addition to a questionnaire (version 1 and version 2) and an interview.

6.3. Chapter Three

This chapter is analytic in nature, it presents the analysis of the data tapped from the different tools of research already described in detail in the previous chapter. The results of each interval, notably, Time 1, Time 2 and   Time 3 are reported separately. Analysing and interpreting the findings allow the acceptance or rejection of the suggested hypotheses in relation to vocabulary attrition. It is obvious that language learning occurs with backsliding but learning about the factors that cause forgetting and the type of vocabulary attritted helps in fighting against it. Doing so allows both the teacher and the learner to better learning and lessen attrition. Consequently, the teacher develops in him/her new concepts and ways for teaching and promotes in the learners effective ways of learning, and the learners from their parts acquire better tools and techniques that help them enhance their learning.

It has been found out that among the attritted lexis, there was more loss of what was studied than failure to retrieve it. Moreover, the learners' proficiency level directly linked with higher motivation and positive attitude towards the language

reduced vocabulary attrition when appropriate vocabulary learning strategies were used. As for disuse over the period of summer vacation and the vocabulary teaching methodology, they did not seem to influence greatly on lexical attrition as there was a stability in the scores even before and after summer vacation. Productive vocabulary was more likely to be forgotten than receptive and verbs were more attritted than verbs and adjectives whether receptively or productively. From these findings, the following chapter will try to suggest some remedial practises that may reinforce vocabulary learning so that to wear off its attrition.

6.4.   Chapter Four

The focus of the last chapter is to provide some suggestions and pedagogical implications falling into the efficient learning of vocabulary and the better memorization. Therefore, the researcher has thought that the best way to lessen vocabulary attrition lies in the best way of learning what is encountered. It is suggested then that (EFL) teachers make their learners acquaint the usefulness and the efficacy of VLS in vocabulary learning and train them to use them in their learning process. What is suggested also in this chapter is to provide lexis that matches both the students' deficiencies and educational needs.

Word recognition activities are also advisable to reinforce guessing the meaning of unknown words and promote learning. In creating opportunities for practising and reviewing words already encountered gives them more chance to be memorized and consequently less forgotten.

It is thought as well that inciting students to reading can provide a chance to vocabulary to be learnt incidentally as the need to understand pushes the reader to look for the meaning of new words and repeated exposure to these words can result in an unintentional memorization.

The use of technology can also be used as a means to promote and enhance language learning in general and vocabulary learning in particular. Third-

millennium learners highly attached to Facebook, particularly, can use it as a tool to learn words as the need arise to communicate besides the entertaining time it offers to them.

vocabulary attrition can be lowered by good memorization which is guaranteed by the appropriate use of VLS and exposure to the language. This can be achieved only with higher motivation to learn and use the strategies because it would be useless to know the strategies and not to use them. So much focus is to be put on the usefulness, the efficacy and the appropriate and wide use of VLS that are valuable aids in language learning in general and vocabulary learning in particular. From another angle, promoting the use of VLS allows the learners to better handle the large amount of lexis encountered incrementally.

Word recognition activities from their parts can be one of the concerns of EFL teachers (and language teachers in general) because practicing such activities reinforces learners' knowledge of words and expands it. They develop in them as well guessing the meanings of words as it is the case with dividing the words into roots and affixes. Organizing words into selective lists can not only help in better organization but easier retrieval too. Referring to cognates helps finding out the meanings of unknown words with a careful attention to the false cognates.

Reading is another means that enhances vocabulary learning, particularly incidental. In so doing they satisfy the pleasure of reading (if interested in reading, of course) and simultaneously learn lexis about different topics. Being in constant contact with the language allows reviewing the already encountered words, thus repeated exposure helps the forgotten to be remembered, especially the high-frequency words, and allows as well expanding the semantic map in relation to a topic.

ICT's can be effective tools as 21st century learners are heavily relying and influenced by technology. Thus, if they are engaged in their language learning process they can create more opportunities for learning. So being motivated to produce a video allows them to look for expressive words and well-constructed language. Moreover, interaction via online social networking such as Facebook and

the like provides opportunities to learn from each other by exchanging ideas about assignment for instance, knowledge and information about a particular topic in a cross-cultural environment. All this is accomplished in an entertaining way where the word is the most important element that carries any desired message and where the repeated exposure to the language, viz. the lexis helps better retention.

7. The Main Findings

The analysis and interpretation of the elicited data throughout the study enabled to check the validity of the hypotheses proposed as answers to the research questions. Concerning the first hypothesis it was infirmed that the students forget most of the studied lexis; results also revealed that they may remember a word but not at the needed moment, and sometimes they remember having seen the word but do not remember its meaning. Then, they mostly experienced loss of the studied words rather than failed to retrieve them at the desired time.

As regards the second hypothesis related to the variables that may have an impact on vocabulary attrition, it was partially confirmed and partly infirmed as some factors had an impact while others did not; in addition, some factors were intertwined. It was found out that the High and Mid proficient students experienced less attrition than Low proficient ones, both receptively and productively. Therefore, the initial proficiency level had a considerable impact on lexical attrition.

VLS adequate use, as another variable tackled in the present work, proved its negative impact on vocabulary attrition. The results showed an increase in the use of the strategies which may explain the stability in the rate of attrition over the three intervals.

Concerning language disuse over summer vacation, results levelled off both productively and receptively. This means that a short period of disuse equalling three months does not influence on lexical attrition.

All learners showed higher motivation and favourable attitude towards studying English. However, the studied lexis of half of the students underwent higher attrition exceeding even 70 %. It can be concluded that being motivated and enjoying studying English without making efforts to learn remained insufficient to maintain the learnt lexis. Then motivation and attitude did not seem to have an impact on vocabulary attrition in the present context; this can be related to the lower proficiency level of some students.

The last variable dealt with was the teaching methodology. The same rate of attrition was reported throughout the two tests. Thus, what could be drawn was that teaching vocabulary within contexts (by the use of texts) and out of contexts (by isolated exercises) do not have an effect on vocabulary forgetting which means that the teaching methodologies do not influence on lexical attrition.

If taken separately, lower proficiency level and inadequate use of VLS are factors related to vocabulary attrition; whereas disuse over summer vacation, higher motivation and positive attitude towards studying English, and teaching methodologies proved to be factors not having an impact on attrition.

In an attempt to find a possible influence of one of the variables on the other, a cause and effect relationship was set. From some exceptions observed on the results, a Mid-proficient student outperformed in the tests and recorded the least attrition; however, another High-proficient student's results tallied a considerable amount of vocabulary attrition. Moreover, to another highly motivated student a severe attrition was reported. The missing link for high vocabulary maintenance is related to exerting the required efforts during the process of learning, notably by the use of VLS. Therefore, it can be concluded that attitude and motivation, would not serve an EFL learner without making efforts to do so.

The third hypothesis was confirmed as the results revealed that vocabulary was forgotten receptively less than it was productively. This could be explained by the demanding learnability of productive lexis over the receptive. Moreover, the receptive test provided clues that might have helped them recall of the words.

Whereas in the productive tests, they needed to find out almost the whole form of the word with only one or two letters provided.

Concerning the last hypothesis, it was uncovered that verbs and nouns were more forgotten productively; whereas verbs were more forgotten receptively. Therefore, the hypothesis is infirmed as verbs were more prone to be forgotten both receptively and productively.

This investigation is in no way exhaustive as it cannot cover all the aspects of attrition nor all the variables that may have an impact on lexical attrition. It is hoped that it brings a bit of additional understanding in the field of vocabulary attrition. It calls as well for further research such as conducting it over a longer period and with a higher number of participants, checking the impact of other variables such as the right lexis to be introduced, and which of the VLS lead to lesser attrition, besides the variable of aptitude. In addition, hypotheses of attrition can be tested to check their validity in the Algerian context.

8. Limitations and Delimitations of the Study

Being not exhaustive, there are some limitations and delimitations throughout the conduction of the present investigation. They are summarised as follows:

1) Firstly, the sample is very small which limits the findings to only the target subjects and hinders their generalisability to a larger population.
2) Secondly, the time-span is limited; it would have been better to conduct the study over a longer period to probe the rate of attrition for a longer interval, mainly, a period after the end of studies.
3) Thirdly, the variable of aptitude, if included, would have given more reliability to the rate of forgetting.

More comprehension and deeper understanding is required to further elucidate the phenomenon which can be done in other studies with larger population and more variables.

General Introduction

Forgetting or losing language or language skills has recently been recognised as a dilemma threatening language retention. This could be noticed on immigrants returning to their mother lands after having stayed longer periods in the host country, and in students learning a foreign language. To this phenomenon the term language attrition is used.

In almost all the works, the term attrition is used rather than loss; this is due to the consideration that the linguistic information is stored somewhere in the memory and cannot be accessed to. In cases of neurolinguistic dilemma such as aphasia or dementia the term 'loss' is the only one referred to, and this is not the concern of the present study nor that of any applied linguistics investigation.

Language attrition was firstly used to describe a decline in the foreign language performance by individuals. Lambert and Freed (1982) noticed that the students learning an Indian language experienced a loss in language skills even with the large amount of time spent to learn it. This was also widespread throughout the field of area studies. After conducting two major national surveys of university-based language and area studies, they found out that the problem of language skills loss was endemic to African, East European, Far East, Middle East, South Asian, and South East Asian studies (cited in Köpke & Schmid, 2004).

This observation on the loss of language skills inspired the researchers to organize a national conference at the University of Pennsylvania in 1980 dedicated to the theoretical background of research in the field. The papers submitted to the conference were collected in *The Loss of Language Skills* (Lambert & Freed, 1982). The publication of the book was a landmark work which has lost no importance and relevance to current research on language. Some papers were subsequently

published in *Language Attrition in Progress* (Bert & De Bot Kees, 1986). The thirteen authors' collected papers treated first language attrition, dialect loss, and first, second and foreign language attrition. Cohen's contribution was the first one to treat foreign language vocabulary forgetting.

After the conference and *The Loss of Language Skills*, language attrition, previously known as language loss, emerged as a promising discipline with theoretical and methodological frameworks and background information from neighbouring disciplines (Köpke & Schmid, 2004). These disciplines are related to what is being lost (thus the focus of linguists), how it happened (thus the focus of psycholinguists and neurolinguists) and why it happened (thus the focus of sociolinguists, sociologists, and anthropologists) (Hansen & Reetz-Kurashige, 1999). The discipline has become a source of scientific interest and called for more research.

Throughout the last three decades following the 1980 Pennsylvenia Conference, studies on language attrition can be classified into three periods. In the first period (1980-1988), scholars concern was to draw the typology and nature of language attrition and succeeded to establish language attrition as an independent field of study different from the primarily existing field of language acquisition in applied linguistics. Subsequently, some attempts to suggest theoretical frameworks for studies in the field appeared notably, Lambert and Moore; Ginsburg; and Jaspaert, Kroon, and van Hout; all collected in *Language Attrition in Progress* (1986).

In the second period (1989-1999), the ground for attrition studies was prepared as many investigations were conducted and a methodology of research in the field had already started to reach a certain maturity. A special issue of *Studies in Language Acquisition* (1989, Vol 11, N°2) collected a number of empirical research already registered in the afore-mentioned books. Another collection of works in the field was edited in *First Language Attrition* (Seliger & Vago, 1991).

In the third period (2000 - up to now), no more in its embryonic phase, language attrition is "reaching puberty" (De Bot, 2004). Its responsibility is to adapt methods and theories from other fields of study that have proven their practical value, and simultaneously prove that studies in language attrition can contribute in their turn to those fields (De Bot, 2004). The publication of *First Language Attrition: Interdisciplinary Perspectives on Methodological Issues* (Kopke & Schmid, 2004), and *Language Attrition: Theoretical Perspectives* (Schmid, *et al.,* 2007) prove the great theoretical contribution in the field; besides, *Language Attrition* (Schmid, 2011) tries to show sociolinguistic features involved in language attrition and to familiarize the reader with experimental approaches to this kind of studies and provides guidelines on how to use data analysis techniques and how to apply them. Xiyangyun (2010) gives a detailed account of the three phases and the studies carried out mainly in Europe and the United States.

Studies in language attrition started also to gain interest in other countries such as Iran, China and Japan. Arab researchers as well were intrigued to know about attrition in their EFL learners, notably, Alharthi (2012, 2014, and 2015) and (Al-Hazemi, 2000). Their investigations revolved around lexical attrition in Saudi EFL learners. A similar interest motivates the present work trying to explore vocabulary attrition in the Algerian context, and more precisely, with second-year EFL students at the University of Tlemcen.

It is obvious that vocabulary items are the building blocks of any language. Due to the incremental nature of vocabulary learning, EFL learners (and language learners in general) come across new words continuously and they are intended to make efforts to learn as much as possible in order to enrich their lexical store and reach a good proficiency level and a mastery of the language. Yet, second-year EFL learners suffer from vocabulary attrition. It has been noticed in the module of discourse comprehension (a module in which learners study and are supposed to develop their reading skill) that newly encountered lexis is forgotten. Sometimes it is a complete loss, other times they can't retrieve the already studied words (whether the words or their meanings).

It is evident that language learning can't happen without backsliding, but what has been astonishing is that this happens largely and during the academic year. What is commonly known about language attrition is that it happens as a result of disuse, but what is alarming is that the target subjects are still enrolled in their studies. What intrigues the researcher, then, is the search for the factors causing the target students' lexical attrition. Thus, the factors tackled actually are: the initial proficiency level, the inadequate or limited use of vocabulary learning strategies, disuse over summer vacation, vocabulary teaching methodology, and motivation and attitude. In addition, the type of vocabulary, be it receptive or productive, and the part of speech, whether verbs, nouns or adjectives, more prone to attrition are also studied.

The present exploratory and longitudinal investigation tries humbly to contribute to the field of second language attrition and its importance lies in finding the causes of vocabulary attrition in order to gain deeper understanding of the phenomenon. The findings may uncover considerable amount of information as regards vocabulary instruction and learning at the university level. It can elucidate the variables that may have an impact on vocabulary attrition. Besides, it aims at finding out the type of vocabulary and the part of speech more prone to be attritted.

Knowledge about the causes of forgetting help EFL teachers use materials and teaching methodologies and techniques in favour of better retention of what is presented to their learners. Textbook designers can also plan their courses in such a way that vocabulary attrition can be avoided or minimised. In the context of memory and forgetting it is important to know that most forgetting occurs soon after the learning sessions end and then slows down, so recycling and consolidating over repeated intervals is needed (Schmitt, 2000). Therefore, learning about the efficient way to present material and memorize it so that it is maintained for longer is a major concern of educators and why not autonomous learners taking in charge their own learning.

The present work aiming at investigating vocabulary attrition in second-year university students at the University of Tlemcen endeavours to answer the following research questions:

9. Do EFL learners suffer from retrieval failure or complete loss of the learnt vocabulary in discourse comprehension module at the University of Tlemcen?

10. What are the factors that have an impact on students' vocabulary attrition?

11. Are productive words attritted more than receptive words?

12. Which part(s) of speech is (are) more prone to attrition?

To these questions, the following hypotheses are suggested:

13. EFL university students suffer in some cases from retrieval failure and in most cases from complete loss of the studied vocabulary.

14. Students' vocabulary attrition may be due to: the lower initial proficiency level, the inadequate use of vocabulary learning strategies, language disuse, students' attitude and motivation, and vocabulary teaching methodologies.

15. Productive vocabulary is more prone to be forgotten than receptive.

16. Nouns undergo more attrition than verbs and adjectives.

In order to check the validity of the suggested hypotheses, a number of research tools will be used along the three intervals of the investigation. A Vocabulary Levels Test (Schmitt *et al.*, 2001) and a Productive Vocabulary Levels Tests (Laufer & Nation, 1995) will be used to know about the target students' proficiency level. A Receptive Vocabulary Test and another Productive Vocabulary Test developed by the researcher will be introduced to probe their receptive and

productive vocabulary attrition in the trees phases of the study. Two Vocabulary Knowledge Scales (1 and 2) to learn about the effectiveness of the use of vocabulary learning strategies and the vocabulary teaching methodologies introduced along the academic year. An interview and two questionnaires (version 1 and 2) will be conducted with the students at Time 1 and Time 3 to know about their motivation and attitude, the use of VLS, their opinions about the teaching methodology and the causes of their vocabulary forgetting.

The thesis consists of four interrelated chapters. The first chapter is three-fold; the first part provides an overview on language attrition and its typology and the main hypotheses. The second tries to give a brief idea about vocabulary in relation to its knowledge, memorization and forgetting shedding light on theories of forgetting. The third part depicts the factors of vocabulary attrition talked in the present work, namely, the initial proficiency level, VLS, vocabulary teaching methodologies, disuse, attriters' motivation and attitude towards English, in addition to the types of vocabulary (receptive and productive). Some already conducted investigations are presented to be compared to the present study. At the end some methodological issues still rising in language attrition research are discussed.

The second chapter revolves around the teaching/learning situation in which the study will be conducted and the study design. Then, language policy in Algeria from after the independence (1962) is presented and the ELT situation from the middle school to the university level is described. It provides also an overview of the LMD system and the English Department at the University of Tlemcen. Moreover, an account of the case study is detailed providing the aim and the steps of the study, in addition to the data elicitation tools.

The penultimate chapter analyses the collected data through the already mentioned instruments in the three intervals of the investigation. The results will be reported separately and compared. After, they are discussed and interpreted to check the validity or rejection of the suggested hypotheses. The objectives behind this analysis are to explore the factors having an impact on vocabulary attrition, and to know about the type of vocabulary and part(s) of speech undergoing more attrition.

The ultimate chapter is devoted to some suggestions and pedagogical implications based on the findings obtained from the analysis. They are hoped to provide some insightful ideas that may help EFL teachers (and language teachers in general) and learners to better learn vocabulary and commit it to the long-term memory so that it undergoes lesser attrition.

General Conclusion

Being the mirror of learning, language attrition sprang out as a new field of study independent from language learning to investigate the phenomenon of forgetting. It was firstly used to refer to the decline in individuals performing the foreign language then developed throughout the three and so last decades, starting from the 1982 Pennsylvania Conference, to explore the different language skills. Vocabulary attrition, as part of the skills that can be forgotten, is the concern of the present work aiming at probing it in second-year EFL learners at the University of Tlemcen.

It is quite evident that language learning cannot occur with no backsliding and more precisely, vocabulary, as it is encountered increasingly and continuously. Foreign language learners' concern is to enhance their lexical luggage in order to be able to develop a proficiency level that allows them to master the language at the required level.

However, what has been noticed is that the target learners forget a large amount of the encountered lexis and sometimes completely lose it even though it has been practised in the classroom. This lexis was studied in the Discourse Comprehension module currently known as Study Skills module.

The questions that may arise in the present context are whether vocabulary learning happens with the required effort or not, whether the appropriate tools are used throughout the learning process or not, whether it is committed to the long-term memory or not, whether opportunities to learn are created or not, whether (repeated) exposure to the language is ensured or not by the EFL learners. These questions have motivated the researcher to investigate mainly the factors that may have a direct effect on vocabulary attrition.

In order to explore the phenomenon, a longitudinal study was carried out along twelve months over three intervals. The objective behind using this process

was to observe the development of lexical attrition over a longer period. Meanwhile, the overall aim was to uncover some causes of attrition and the type of vocabulary undergoing more attrition, in addition to the part of speech more likely to be forgotten. The work is hoped to highlight some insights that may help both educators and learners to reduce vocabulary attrition.

A number of research instruments were used along the study trying to discuss the research questions and hypotheses, notably, six vocabulary tests, two questionnaires and an interview. In the first interval (Time 1), the Vocabulary Levels Test (Schmitt *at al.,* 2001) and the Productive Vocabulary Levels Test (Laufer & Nation, 1995) were used to evaluate students' initial proficiency level. Vocabulary Knowledge Scales, 1 and 2 developed by the researcher, to compare the impact of two teaching methodologies on vocabulary attrition and Vocabulary Knowledge Scale 1 to compare the efficacy of VLS use and non-use with, respectively, the experimental and the control groups, in addition to Receptive Vocabulary Test and Productive Vocabulary Test, also developed by the researcher to check learners' attrition of the studied vocabulary over the three intervals (Time 1, 2 and 3) both receptively and productively. Two questionnaires (version 1 and version 2) and an interview were introduced to highlight their motivation and attitude, their VLS use, and opinions about the studied material, the teaching methodologies and the causes of their lexical forgetting.

The analysis and interpretation of the elicited data throughout the study enabled to check the validity of the hypotheses proposed as answers to the research questions. Concerning the first hypothesis it was infirmed that the students forget most of the studied lexis; results also revealed that they may remember a word but not at the needed moment, and sometimes they remember having seen the word but do not remember its meaning. Then, they mostly experienced loss of the studied words rather than failed to retrieve them at the desired time.

As regards the second hypothesis related to the variables that may have an impact on vocabulary attrition, it was partially confirmed and partly infirmed as some factors had an impact while others did not; in addition, some factors were

intertwined. It was found out that the High and Mid proficient students experienced less attrition than Low proficient ones, both receptively and productively. Therefore, the initial proficiency level had a considerable impact on lexical attrition.

VLS adequate use, as another variable tackled in the present work, proved its negative impact on vocabulary attrition. The results showed an increase in the use of the strategies which may explain the stability in the rate of attrition over the three intervals.

Concerning language disuse over summer vacation, results levelled off both productively and receptively. This means that a short period of disuse equalling three months does not influence on lexical attrition.

All learners showed higher motivation and favourable attitude towards studying English. However, the studied lexis of half of the students underwent higher attrition exceeding even 70 %. It can be concluded that being motivated and enjoying studying English without making efforts to learn remained insufficient to maintain the learnt lexis. Then motivation and attitude did not seem to have an impact on vocabulary attrition in the present context; this can be related to the lower proficiency level of some students.

The last variable dealt with was the teaching methodology. The same rate of attrition was reported throughout the two tests. Thus, what could be drawn was that teaching vocabulary within contexts (by the use of texts) and out of contexts (by isolated exercises) do not have an effect on vocabulary forgetting which means that the teaching methodologies do not influence on lexical attrition.

If taken separately, lower proficiency level and inadequate use of VLS are factors related to vocabulary attrition; whereas disuse over summer vacation, higher motivation and positive attitude towards studying English, and teaching methodologies proved to be factors not having an impact on attrition.

In an attempt to find a possible influence of one of the variables on the other, a cause and effect relationship was set. From some exceptions observed on the

results, a Mid-proficient student outperformed in the tests and recorded the least attrition; however, another High-proficient student's results tallied a considerable amount of vocabulary attrition. Moreover, to another highly motivated student a severe attrition was reported. The missing link for high vocabulary maintenance is related to exerting the required efforts during the process of learning, notably by the use of VLS. Therefore, it can be concluded that attitude and motivation, would not serve an EFL learner without making efforts to do so.

The third hypothesis was confirmed as the results revealed that vocabulary was forgotten receptively less than it was productively. This could be explained by the demanding learnability of productive lexis over the receptive. Moreover, the receptive test provided clues that might have helped them recall of the words. Whereas in the productive tests, they needed to find out almost the whole form of the word with only one or two letters provided.

Concerning the last hypothesis, it was uncovered that verbs and nouns were more forgotten productively; whereas verbs were more forgotten receptively. Therefore, the hypothesis is infirmed as verbs were more prone to be forgotten both receptively and productively.

To sum up, from the present study, it can be drawn that learners lose the studied words more than they fail to retrieve them. These words could be better maintained, thus less forgotten, as long as the students are highly motivated and having a favourable attitude towards the language but exert enough efforts to learn, notably by the use of vocabulary learning strategies. The fact of not using the language over summer vacation does not seem to affect significantly vocabulary attrition as stability in the results was recorded, and so is the case with vocabulary teaching methodologies, viz, within context and out of context. Additionally, productive words are more prone to be attritted than receptive, and verbs are more likely to be lost than nouns and adjectives. A limited exposure to the language can also contribute in the attrition of words, so creating more opportunities to be in contact with the language helps to reduce attrition. Another variable that may be added is that attrition would have been less if the introduced lexis was the right one,

i.e. related to their future studies and specialities. So another variable that would have worth to be investigated was the right or wrong vocabulary to be introduced throughout the teaching material.

This investigation is in no way exhaustive as it cannot cover all the aspects of attrition nor all the variables that may have an impact on lexical attrition. It is hoped that it brings a bit of additional understanding in the field of vocabulary attrition. It calls as well for further research such as conducting it over a longer period and with a higher number of participants, checking the impact of other variables such as the right lexis to be introduced, and which of the VLS lead to lesser attrition, besides the variable of aptitude. In addition, hypotheses of attrition can be tested to check their validity in the Algerian context.

Publication

MEMORY STRATEGIES: BOOSTING VOCABULARY

LEARNING AND LEARNER AUTONOMY

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ABSTRACT

Vocabulary learning is one of the major challenges learners face in foreign language learning process. To allay this burden, EFL teachers may teach their learners how to learn it. Teachers, then, and within the learner-centred approach may train their learners to use memory strategies to help them tackle the task of vocabulary learning efficiently and independently; and with willingness and motivation from the part of the learners they can enrich their lexicon and even become more autonomous.

The present paper describes an experiment which was led with second-year university students to check the efficacy of teaching these strategies. Results showed that memory strategies, characterized as deep strategies, ensure a better retention of the learnt vocabulary and lead to more efficient learner autonomy. And above this, it gave students more self-confidence and motivation. But prior to this, the related literature review is presented about vocabulary and its importance in foreign language learning and about memory vocabulary learning strategies.

KEYWORDS: Vocabulary, Vocabulary Learning Strategies, Memory Strategies, Autonomy

INTRODUCTION

Foreign language learners remain struggling with vocabulary along their language learning process. The task may seem to be easy but due to its incremental nature learners experience difficulties in memorizing the large number of lexis encountered continuously. Its importance is undeniable, it is argued that it is central to language acquisition, whether the language is first, second or foreign (Decaricco, 2001) being even prior to grammar; Wilkins corroborates putting more focus on vocabulary rather than on grammar stating that while 'without grammar very little can be conveyed, without vocabulary nothing can be conveyed' (1972:111).

The task is so challenging that both teachers and students try to find the best and most efficient way of learning it. Teachers can introduce vocabulary either incidentally or intentionally. It is stated that substantial contact with the target language and extensive reading (thus incidental vocabulary learning) ensures learners' vocabulary development (Nation, 2001; Oxford, 2001; Oxford and Scarcella, 1994). In the same vein, Ellis (1997) states that an ideal source for learning L2 vocabulary from context is reading (cited in Višnja, 2006). However, the new approach of vocabulary teaching states that vocabulary learning can be enhanced when the learners' attention is directed consciously to vocabulary items and to the strategies used to learn it (Nation, 2001). The findings of a study led in the University of Minnesota would suggest that 'explicitly describing, discussing, and reinforcing strategies in the classroom –and thus raising them to the level of conscious awareness– can have a direct payoff on student outcomes' (Cohen, 1998:19). In other words, teachers' concern is not only to teach learners, particularly vocabulary, but to teach them how to learn vocabulary, viz, to teach them

vocabulary learning strategies and the way they use them efficiently. These strategies are any 'actions that learners take to help themselves understand and remember vocabulary' (Cameron, 2001: 92). The purpose behind instructing these strategies is two-fold: (1) to enhance learners' vocabulary knowledge and (2) to develop their ability to learn independently, i.e. autonomously. It is assumed that most vocabulary learning takes place outside the classroom setting and tends to be done alone. For this reason, it would be wiser to guide the learners in how to learn in order to enable them to approach the task of vocabulary learning on their own as successfully as possible, therefore, 'such strategies are tools which learners must have if they are to be ready to assume the autonomy that process syllabus imply ... without them, they are likely to flounder' (Skehan, 2000: 265). This autonomy becomes a necessity with the requirements of the learner-centred approach in teaching since the teacher is no longer the provider of knowledge and instruction in the classroom but a guide to the learners in their learning process. Learners taking in charge their own learning can cope confidently without teachers support. Through practice, they become capable of assuming responsibility for their own learning and gradually gaining confidence, involvement and proficiency (Oxford, 1990). Thus, they become more motivated to study since they develop an ability to learn. Dickinson (1995) and Little (2002) (as cited in Barillaro, 2011) corroborate stating that learner autonomy increases motivation, which in turn increases learning effectiveness. Consequently, a shift in the responsibility of teachers and learners in the classroom occurs, teaching learners to use learning strategies plays 'a major role helping to shift the responsibility for learning off the shoulders of the teachers and on to those of the learners' (Cohen, 1998:21).

A number of vocabulary learning strategies taxonomies appeared on the field of language acquisition, notably, Gu and Johnson (1996), Nation (2001) and Schmitt (1997) including different types of strategies that suit learners' learning styles, age, gender, motivation, attitude and personality to cite but a few. The taxonomy referred to in the present study is that of Schmitt which was originally based on Oxford's (1990) taxonomy of language learning strategies and the focus falls on memory strategies because of the age of the participants (being university students). In fact, age is one of the clear factors affecting the choice of a strategy rather than another (Ellis, 1994). Memory strategies, also traditionally known as mnemonics, refer to strategies of retaining new words using some imagery or grouping (Schmitt, 2000), thus, they help learners associate a new word with something already familiar to them (Oxford, 1990). Schmitt (1997) reports, while studying the use of vocabulary learning strategies of different age groups, that the younger the learners, the simpler the strategies used and that adult learners use strategies that require a 'deeper' mental processing like the strategy of imaging the word's meaning.

Furthermore, according to the 'Depth of Processing Theory', the more efforts a learner exerts when manipulating information the better it is stored and remembered. The theory is proposed by the psychologists Craik and Lockhart (1972). Their new concept is that memory is just what happens as a result of processing information, they suggest that memory is the by-product of the depth of processing of information and the way information is processed can be through (1) shallow processing which involves rehearsal, i.e., maintenance repetition to help the learners hold information in the short-term memory and leads to fairly short-term retention or (2) deep processing which involves an elaboration rehearsal based on a more meaningful analysis of information that can be done through images, thinking and associating or linking words meaning to previous knowledge. The second one leads to long-term retention. The hypothesis, originally psychological, can be applied to pedagogy since the fields are interrelated. And the deep processing matches memory vocabulary learning strategies in such a way that a deep and elaborate processing of word knowledge (in terms of form, meaning and even collocation) can lead to better retention and minimizes attrition.

Schmitt's model seems to be elaborate and comprehensive. He distinguishes between two main groups of strategies: discovery strategies, those who determine the meaning of new words encountered for the first time and consolidation strategies, those used to consolidate the meaning of words encountered again. The former includes determination and social strategies and the latter consists of social, memory, cognitive and metacognitive strategies. Memory strategies, which are the concern of the study, require an elaborate mental processing (Schmitt, 1997). They refer to the strategies through which the learners use some imagery or grouping, thus, they help the learners to associate a new word with something already familiar to them (Oxford, 2001). Twenty-seven sub-strategies are cited under this category but only ten are selected for the investigation. They are as follows: image word's meaning, connect word with a personal experience, associate the word with its synonym (s) and antonym (s), associate the word with its coordinate(s), use new words in sentences, underline initial letter of the word(s) (use acronyms to use one of Oxford's strategies), use the keyword method, group words together to study them, use cognates, use physical action when studying words. The selection is supposed to help learners tackle different lexical items; a strategy may function well for a word but not for another. In the case of words which have no cognates, another strategy is used; likewise, physical action is used mainly for action verbs but not for state verbs. Memory strategies are used actually to test the extent to which they help EFL learners improve their vocabulary storage and retention over a period of time and their autonomy.

Participants

The participants of this investigation are 54 second-year EFL students at the University of Tlemcen, Algeria. English is the foreign language in the country. The mother tongue is Arabic and French is the second language. These students have been exposed to seven years before starting university courses which means that, as second-year students, they have already eight accumulated years of English studies. Their age range is between 19 and 22 years old. 28 students served as experimental group and 26 as control group.

Instruments of the Study

To elicit the required data, the following tools were used:

Vocabulary Levels Test (VLT)

To know about learners' vocabulary level of both groups (experimental and control) a vocabulary levels test (Schmitt *et al*: 2001, version 2) was introduced at the outset of the experiment. The aim was to learn whether or not a group is more proficient than another, thus, to ensure that vocabulary proficiency is balanced.

Treatment Material

To lead the investigation, a material was prepared by the researcher which included the ten selected memory vocabulary learning strategies to be taught to the experimental group. Vocabulary learning strategies were defined with a focus on the selected memory strategies with illustration (see appendix A). Students were handed the handout in which all presented explanation was summarised with exemplification as a reference in need. A practice was provided to ensure that the participants grasped the use of the different presented strategies.

Vocabulary Knowledge Scale (VKS)

This vocabulary test was introduced two weeks after the introduction of the strategies to the experimental group (after the teaching phase) to both groups following Vocabulary Knowledge Scale. It was first developed by Paribakht and

Wesche (1993:179) "to distinguish stages in learners' developing knowledge of particular words". It comprises five-points scale ranging from "total unfamiliarity, through recognition of the word with grammatical and semantic accuracy in a sentence" (Paribakht and Wesche, 1993:179). To assess the target items, a self-report for the 5-points scale is used to "elicit self-perceived and demonstrated knowledge of specific words in written form" (ibid), the scores ranged from 1 to 5 points (for more details see appendix B). The researcher selected twenty words from the already introduced during the experimental period to compare the degree of vocabulary retention of the two groups. From the presented vocabularies, the selected ones were unfamiliar to all students.

A Questionnaire

The researcher tried to tap information about the use of memory vocabulary learning strategies based on a five-graded Likert-scale (from always to never). Some questions were drawn from Strategy Survey Inventory for language learning (SILL) version 7.0 (Oxford, 1990). The questionnaire aimed as well to check learners' autonomy and motivation after the introduction of the memory strategies.

Main Study

The main study was carried out in three steps: a Vocabulary Level Test (proficiency level), a treatment (the introduction of memory strategies/ the teaching phase), and a Vocabulary Knowledge Scale (two weeks after the teaching phase). Both groups were taught the same lexical items and during the same period. The steps are explained below.

Pre-Test: Vocabulary Levels Test

The VLT was administered to both groups 2 weeks before starting the experiment to measure learners' vocabulary proficiency level and to ensure the balance between the two groups proficiency level.

While-Test Treatment

The treatment took place at the same period and the allotted time for teaching and the content was the same.

Control Group

Vocabulary items were introduced to the control group through some techniques such as:

- Writing the words on the board.

- Explaining the meanings of the words

- Explaining their parts of speech.

- Presenting words in collocation.

- Presenting the meaning of words with synonyms and antonyms.

Experimental Group

Teaching vocabulary in this group was different, an action plan was developed focusing on making the students "aware of the need to become independent learners by recognizing the strategies they possess and those they lack" (Ghazal, 2007: 90). The steps of the treatment are as follows:

- Learners' awareness of the importance of vocabulary in facilitating the learning process was raised.

- Students' consciousness of the vocabulary learning strategies they already have at hand from learning L1 and L2 was raised to make them familiarized with the concept of strategies.

- Memory vocabulary learning strategies were explained and illustrated.

- Learners were trained to use the strategies during the same lecture (with a fill-in the gaps exercise with a provided list of words –mainly low-frequent words). They were allowed to use monolingual dictionaries to find out the meaning of the new words. A discussion was held about the meaning of words and a reflection was urged on the type of the strategy to be used for vocabulary retention.

Post-Test: Vocabulary Knowledge Scale

To check students' vocabulary retention, the VKS was introduced to both groups 2 weeks after the teaching phase. It is considered that delayed recall after two weeks under experimental conditions is normally referred to as 'long-term retention' (Yongqi Gu, 2003).

Post-Test: Questionnaire

The questionnaire was handed to the students just after the test to know about their receptivity to the memory strategies and at the same time to check their autonomy and motivation.

It is obvious that a number of research questions motivate the investigation, they are:

Research Questions

- Do memory vocabulary learning strategies lead to a better retention of the learnt vocabulary?

- Which of the strategies are mostly used?

- Does the use of memory vocabulary learning strategies foster learner autonomy and motivation in vocabulary learning?

RESULTS AND FINDINGS

Results from the collected data are analysed quantitatively in what follows to respond to each of the suggested hypotheses. But prior to check any hypothesis, findings from the vocabulary levels test introduced at the outset of the experiment (pre-test) are presented. Then, to measure students' vocabulary level of both experimental and control groups, a t-test for correlated data was calculated. The results are presented (in per cent) in table 1.

Table 1: Students' Vocabulary Levels Test

	2,000 Words Level	3,000 Words Level	Academic Word Level	5,000 Words Level	10,000 Words Level
Experimental group	85.18	67.77	54.4	49.6	15.06
Control group	82.8	68.53	69.89	50.38	11.19

It is apparent from the table that students of the two groups enjoy a balanced vocabulary proficiency level (p>.05) even though it seems inadequate for university students. It is worth noting here that it is not within the scope of the present study to evaluate students required level in vocabulary. However, a brief explanation of levels of knowledge could

be introduced. Students' scores in the first level (2,000 words) represent vocabulary knowledge of the most frequent words in English which provide the necessary lexical resources for basic everyday oral communication (Schonell et al., 1956 cited in Schmitt *et al.*, 2001) provided that it is not less than 75%. Students' scores less than this enable them to cope only with some limited and predictable situations (Meara, 2010). The 3,000 words level represents the threshold which enables students to begin to read authentic texts. As for the 5,000 words, this level of knowledge provides adequate vocabulary allowing the learners to read authentic texts and to infer the meaning of the new words from the context and understand most of the communicative content of the text (Schmitt *et al.*, 2001). It is clear from the results that students' knowledge, in general, remains insufficient to do so. Yet, the balanced results avoid any doubt if the results for the vocabulary knowledge scale of the studied vocabulary of the experimental group are higher than those of control group. Moreover, results showed that the vocabulary proficiency level within students is not balanced; this clearly explains that there are students who are more proficient than others.

H1: The use of memory vocabulary learning strategies does not necessarily lead to a better retention of the learnt vocabulary.

To find out the treatment effects, i.e., the efficiency of the use of memory vocabulary learning strategies, a t-test was carried out to compare students' results for the vocabulary knowledge scale meant to measure students' retention of the studied vocabularies.

Table 2: Students' Results for Vocabulary Knowledge Scale

	Mean	t	df	P
Experimental group	99.1	-2.154	1.9	.044
Control group	82.1			

It is apparent from table 2 that gains of the experimental group are greater than those of the control group with means values 99.1 and 82.1, respectively and p= .044 . Therefore, the use of memory vocabulary learning strategies helps students of the experimental group outperform in the test compared with the students to whom the strategies were not introduced. These data do not provide support for the first hypothesis. Consequently, the alternative hypothesis is accepted proving the efficiency of the use of these strategies to retain the studied vocabulary.

H2: Most of the strategies are frequently used to learn the studied vocabulary.

To measure students' use of the strategies, Cronbach alpha was carried out. This test is used when measures have items that are not scored simply as right or wrong such as Likert-scale where responses are scored from 1 to 5 depending on the selected options (Ary, Jacobs and Razavieh, 1972). The calculated reliability is 0.53 (i.e. $\alpha=0.53$). Students' responses revealed that not all these strategies were used. The discrepancies between the mean values varies from 4 to 1 reflecting the frequent use of the keyword method and putting the word in a sentence (4.07), and imaging word meaning (4) strategies (at the frequency 'often'). Whereas, the use of connecting the word with its synonyms and antonyms (3.78), associating the word with a personal experience (3.25) and using cognates (3) strategies are reported at the frequency 'sometimes' on the Likert-scale. The least used strategies are associating the word with its coordinates, grouping words together to study them and using physical action strategies with a mean value of 2.82 (at the frequency 'seldom'). The only strategy which is not used is underlying initial letters of word to form an acronym to be remembered (1.32). The bar-graph clearly represents the difference in the use of the strategies.
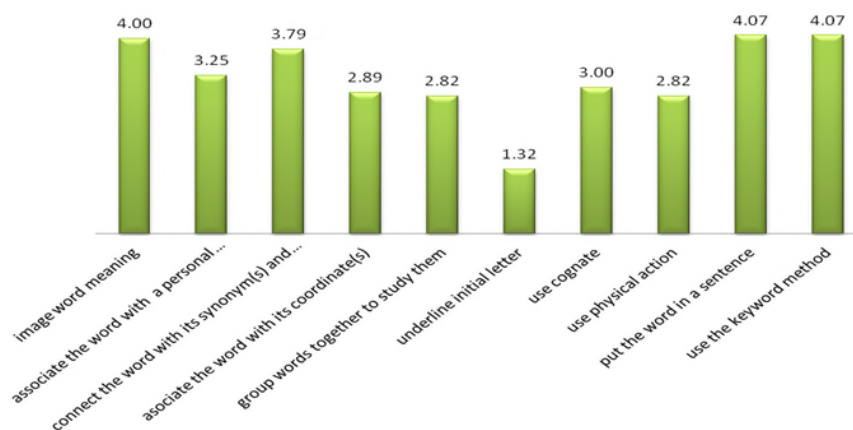
Figure 1: Students' Use of Memory Vocabulary Learning Strategies

From the students' responses to the use of the strategies and the value of α being less than 0.6 which is the least value to accept a hypothesis, it is clear that the suggested hypothesis is rejected giving room to the alternative hypothesis stating that not all the strategies are used by the learners in question.

H3: The use of memory vocabulary learning strategies helps learners become more autonomous and more motivated in their vocabulary learning.

The questionnaire which was introduced to the students aimed at measuring their autonomy and motivation after the use of the strategies. Again, Cronbach alpha was run to calculate the results since they were asked to select from a five-points Likert scale from strongly agree (with a score of 5) to strongly disagree (with a score of 1). The results reported a mean value of 4 for both autonomy and motivation which corresponds to agree and the calculated alpha was 0.61. This explains that the majority of the students agree that the use of the strategies helps them become more autonomous in their vocabulary learning and raises their motivation to learn more as they are equipped with the tools that help them do so.

DISCUSSION

The aim behind this experiment was to explore the extent to which the use of memory vocabulary learning strategies helps EFL learners at the University of Tlemcen to promote their vocabulary knowledge and autonomous learning. As it has earlier been mentioned, these students' vocabulary level seems inadequate for university studies even though they have studied English as a foreign language for more than 7 years. This may be due to the previously used system of correction in the Baccalaureate exam lacking severity which gave the opportunity to learners of lower proficiency level to study at the university. In fact, a good number of students are proficient and do not experience the same difficulty in vocabulary learning as that of low or mid-proficient students. The results indicate that students of experimental group to whom memory vocabulary learning strategies were introduced were better than those of the control group. This entails that students gained not only richer vocabulary store but they became equipped with tools that help them tackle the task of vocabulary learning. This doesn't mean that they haven't prior strategies before teachers' instruction. On the contrary, this reinforces the strategies they have from learning L1 and L2 and gives them the opportunity to learn new ones. Hence, memory vocabulary learning strategies proved to be efficient in vocabulary learning even though not all the strategies are used. And this is what was uncovered by the findings. The most frequently used strategies amongst the ten introduced were only three. The choice may be referred to their age and learning styles.

On what concerns learners' autonomy and motivation in learning vocabulary, the results showed a significant agreement of the students. Most of them agreed that the use of the strategies helps them become more autonomous in their learning and raises their motivation to learn more. These learners being equipped with the efficient learning strategies gain more self-confidence in them and believe more in their abilities and outcomes in language learning in general and in vocabulary learning in particular. However, it is worthwhile noting that initial motivation is the key to improvement and success. It has been observed on some students of lower motivation to study, to whom the low scores of all the tests is attributed, that they couldn't remember the studied words even though they have been used in class more than once. In addition, their responses to the use of the strategies, most of their answers ranged between seldom and never (on the Likert-scale) for only six strategies. And as for the effect of the use of the strategies, they responded that the use of memory vocabulary learning strategies helps them raise their motivation and autonomy.

CONCLUSION

Richness of vocabulary remains an inseparable ingredient in success in language learning. To this end, EFL teachers should provide their students with the different vocabulary learning strategies, either discovery or consolidation strategies so that the task of vocabulary learning becomes easier for them. These tools help them cope efficiently with the task. The variety in the introduced strategies satisfies the different learners' learning styles, abilities and age.

To conclude with, memory vocabulary learning strategies help EFL learners boost their vocabulary learning and widen their vocabulary knowledge. In addition, being equipped with these strategies ensures an independent learning and enhances their autonomy in language learning in general. Both their motivation and autonomy raises their self-confidence giving them more strength to deal with the different tasks of language learning, be it, vocabulary, grammar or any language skill.

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APPENDICES

Appendix A Treatment Material Memory Vocabulary Learning Strategies

Here is a (selected) list of memory vocabulary learning strategies that helps you memorize and retain the meanings of words.

- Image word meaning: I make an image of the word's meaning in the mind or connect the word with a picture.

- Associate the word with a personal experience: for example I relate the word to something similar that happened (to me) (I connect 'strut' to a moment when I saw a person who strutted in front of all friends because of his new look but suddenly fell down).

- Connect the word with its synonym and antonym: I link, for example, chuckle and snigger as synonyms and subsequent and previous as antonyms.

- Associate the word with its coordinate(s): I connect twiddle with thumb as in 'twiddle your thumb' or pout as in 'pout your lips' and remember the meaning.

- Group words together to study them: I group words in relation to the same theme together, for example: stagger, loiter, wander and ramble and study them.

- Underline initial letter: I remember the first letter of the word, or better a group of 3 or 4 words together and form an acronym from the first letters, for example, from rake, eel and daisy I form the acronym RED.

- Use cognate: I connect the word with its cognate in French, for example, conventional with 'conventionel' and autonomy with 'autonomie' (but there are some false-cognates or false-friends such as smoking and 'smoking').

- Use physical action: for example, I learn 'hop' with an action of jumping, or smile broadly for 'grin'.

- Put the word in a sentence, for instance, 'urchin' as 'The urchin seemed to be hungry'.

- Use the keyword method: I associate the word with a word which is spelt or pronounced similarly in L1 or L2 but not necessarily related in meaning and make a mental image to link the two words, for example when memorizing 'refrain' which means stop yourself doing something I may link it to the French word 'frein' and form a mental image of stopping doing something.

Appendix B: Vocabulary Knowledge Scale (VKS)

Your knowledge about the listed words in the table will be tested. Please, fill it in by ticking the appropriate box according to the grades shown in the following box (the self-report categories).

Self-report categories

I.   I don't remember having seen this word before.

II.   I have seen this word before, but I don't know what it means.

III.   I have seen this word before, and I think it means (synonym or translation.)

IV.   I have seen this word. It means (synonym or translation.).

V.   I can use this word in a sentence: (write a sentence.)

        (If you do this section, please also do section IV)

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