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Assessing the Effectiveness of Using Printed Flashcards for Vocabulary Acquisition in EFL Fourth Grade Middle School

Classrooms in Adrar

A Study for the Master's Degree in Linguistics and Didactics

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اسم ولقب وتوقيع المشرف $x \rightarrow \operatorname{yy} \log c$


## Dedication

Thanks to Allah, the Most Gracious, the Most Merciful, I dedicate this modest work to those who have always supported me to complete my research work and those who have enriched my life with their love and blessings.

Starting from my beloved "grandma", who may have left this world but whose memory will always live on in my heart. Your wisdom, strength, and kindness continue to inspire me every day.

To my lovely mother "Fadila", the queen of my heart, who has encouraged me every single minute.

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#### Abstract

Learning vocabulary has always been considered an essential component of language teaching. English as a foreign language (EFL) pupils are in great need of acquiring as much vocabulary as possible to enhance their communicative abilities and expand their knowledge and understanding of the language. The necessity of grasping vocabulary knowledge leads researchers to investigate effective methods that contribute to reaching the purpose of vocabulary retention. In recent years, flashcards have become widely used by language learners to build their vocabulary. This study assesses the effectiveness of using printed flashcards for vocabulary acquisition in EFL middle school classrooms. The research includes a literature review of current research on the topic and a study of using flashcards in foreign language classrooms. Data collection involved conducting experiments in two classes in two middle schools in Adrar, namely El Mansouriya Middle School "Boualala Muhammad" and "Omar Ibn Abd and Aziz" Middle School. Additionally, a questionnaire was administered to twelve middle schools teachers of English in different districts in Adrar to gather their feedback on the use of flashcards as a vocabulary teaching tool. This study found that printed flashcards are an effective tool for enhancing vocabulary acquisition, as demonstrated by the results of two experiments and a questionnaire. Students who used flashcards showed better understanding and retention of the material compared to those who did not use them. The majority of participants in the questionnaire also perceived printed flashcards as an effective tool for vocabulary acquisition.


Key words: vocabulary, language learning, language teaching, printed flashcards, EFL pupils

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## List of Acronyms and Abbreviations

EFL: English as a Foreign Language<br>FL: Foreign Language<br>L1: First Language<br>L2: Second Language<br>SL: Second Language<br>GTM: Grammar Translation Method<br>ALM: Audio-Lingual Method<br>DM: Direct Method<br>RM: Reading Method<br>MS: Middle School<br>STS: Short-Term Storage<br>APA: American Psychology Association<br>FC: Flashcards<br>NO FC: No Flashcards<br>S1:School one<br>S2: School two

## General introduction

Learning a foreign language has become an interesting task, with English as a foreign language being one aspect of this field. In the context of foreign language instruction, learners need to develop proficiency in various skills, encompassing listening, speaking, reading, writing, pronunciation, grammar, and as much vocabulary as possible to express themselves clearly, and to communicate their thoughts and ideas more fluently and confidently. Vocabulary is seen as an important element in language development, and its successful teaching requires effective strategies. This study aims to investigate vocabulary teaching techniques in the Algerian context, specifically in the city of Adrar, where English has been taught as a subject for several years. It has been observed that many EFL learners lack the necessary vocabulary acquisition. Successful vocabulary teaching may require alternative techniques in Adrar's middle school classrooms.

## 1. Aims of the study

This study aims to assess the effectiveness of using printed flashcards for vocabulary acquisition in EFL middle school classrooms in Adrar, Algeria. It also seeks to investigate the current research on the topic and the use of flashcards in foreign language classrooms, as well as gather feedback from middle school teachers in Adrar on the use of flashcards as a vocabulary teaching tool. The ultimate goal is to contribute to the development of effective language teaching practices and guide educators and pupils on the benefits of flashcards as a vocabulary teaching and learning tool.

## 2. Research Question

This study attempts to find an answer to the following question:
Does the use of printed flashcards effectively enhance the acquisition of new vocabulary among middle school pupils in Adrar?

This question aims to examine the following hypotheses regarding the use of printed flashcards in teaching new vocabulary to middle school pupils in Adrar:

H1: The use of printed flashcards significantly improves pupils' ability to learn and retain new vocabulary compared to traditional vocabulary teaching methods.

H0: The use of printed flashcards does not affect pupils' ability to learn and retain new vocabulary compared to traditional vocabulary teaching methods.

## 3. Research instruments

The research involves a comprehensive review of the current literature on the topic and a study of the use of flashcards in foreign language classrooms. To collect data, experiments will be conducted in two classes from two middle schools in Adrar, while a questionnaire will be distributed to twelve middle school teachers from different districts in Adrar to gather their feedback on the use of flashcards as a vocabulary teaching tool.

## 4. The description of the chapters

This work includes three chapters. Chapter One is dedicated to discussing vocabulary teaching and learning in general. Chapter Two focuses on the use of flashcards as a tool for vocabulary acquisition. Chapter Three is about the field study, which includes experiments conducted in two middle schools in Adrar, and a questionnaire administered to twelve middle school English teachers in different regions of Adrar. Moreover, the last chapter presents the analysis and discussion of the data collected through both methods.

## Chapter One: An Overview of Vocabulary Teaching and Learning

## Chapter One: An Overview of Vocabulary Teaching and Learning

## Introduction

Vocabulary is one of the most important elements in teaching or learning any language; the more people acquire vocabulary, the more they can express themselves fluently and confidently in any situation they encounter. All existing languages in the world have words, and these words are the identity of the language; for example when someone says: "I speak Spanish", that means, among other things, that he masters the words of that language. This can lead us to the fact that not knowing the vocabulary of a language implies not knowing the language. This chapter tackles what is meant by vocabulary and how it is taught and learned.

## 1. Describing Vocabulary

### 1.1 What is a Word?

According to Schmitt (2010), one of the most difficult questions to answer in vocabulary studies is 'What is a word?' because there are a variety of only partly satisfactory answers depending on the reasons for asking the question: if we are interested in counting words based on how long a book is, or how fast someone can speak or read per minute, then we are obliged to count tokens, for instance, the sentence 'to be or not to be, that is the question' has ten tokens. When counting tokens, all instances of a form are counted regardless of how many times they recur. Schmitt (2010) suggests that if our reason for counting depends on vocabulary learning, then we need to choose a unit of counting that reflects the kind of knowledge that language users draw on (p.34).

In Merriam-Webster Dictionary, a word is defined as " a speech sound or series of speech sounds that symbolizes and communicates a meaning, usually without being divisible into smaller units capable of independent use"(Definition of Word, 2023). Words are studied according to their origins, i.e., from where they originated: Latin, Greek, German, etc., or under what process they were formed (borrowing, clipping, blending, conversion, coinage, etc.).

### 1.2 What is vocabulary?

The term vocabulary can be defined as the collection of words, phrases, and expressions that a language comprises and that enable effective communication. Ur (2012) defines vocabulary as the words in a language. However, it may include items that are more than a single word: for example, post office and mother-in-law (p.60). According to him, in addition to lexical items such as nouns, verbs, adjectives, and adverbs, the term vocabulary also encompasses grammatical items like pronouns (e.g.she, someone) and determiners (e.g., the, any). Unlike lexical items that carry specific meanings, grammatical items serve to establish relationships between words within a meaningful utterance. These grammatical items form a "closed set," as new pronouns or demonstratives are unlikely to be added, unlike lexical items that are constantly evolving.

The term vocabulary covers all the lexemes that a language may have. It is "a set of lexemes, including single words, compound words, and idioms"(Richards \& Schmidt, 2013,p.629).

Vocabulary can also be defined as "the total number of words that are needed to communicate ideas and express the speakers' meaning. That is the reason why it is important to learn vocabulary" (Alqahtani, 2015,p.25). From the definitions above, it is clearly understood that vocabulary represents the set of words and expressions that we use or rely on to communicate.

### 1.3 Vocabulary knowledge

Vocabulary knowledge requires knowing words, and knowing words requires the familiarity of recognizing them as forms and meanings as well. It is also required to know how and where an individual must use them. Brash and Nakano (2011) emphasize that understanding a word entails more than just its meaning; it also involves knowledge of its spoken and written forms, as well as its appropriate usage within different contexts. According to them, "[t]he purpose of knowing a word involves knowing the knowledge of spoken and written form, morphological knowledge, knowledge of meaning, collocation and grammatical knowledge, connotative and associational knowledge, and the knowledge of social or other constraints in use" (p.118).

Receptive or passive vocabulary: receptive vocabulary, as defined by Webb (2012), refers to those words that learners can understand when they come across them in a context or a piece of
writing or when they hear them, but they cannot use them when writing or speaking (p.2). In other words, receptive vocabulary refers to a set of words that learners can comprehend and recognize when encountered in context, but are unable to generate or produce themselves (Alqahtani, 2015,p.25).

Productive or active vocabulary: represents how many recognized words can be used by individuals in a productive context (in speaking or writing ). Webb (2012) defines productive or active knowledge as the knowledge required to utilize a word in both speech and writing (p.3). According to Alqahtani (2015), productive vocabulary refers to the words that learners comprehend, pronounce accurately, and effectively use in both spoken and written communication. It covers receptive vocabulary knowledge and also includes the ability to appropriately express oneself through speech or writing (p. 25).

### 1.4 The Evolution of Vocabulary Instruction in Language Teaching Methods

Throughout the history of language teaching and learning, vocabulary instruction has undergone various stages. Different methods, techniques, and strategies have been employed in language teaching, each with its own focus on vocabulary learning in a foreign language. It is important to note that not all methods prioritize vocabulary teaching.

### 1.4.1 The Grammar Translation Method

In the Grammar Translation Method (GTM), vocabulary instruction played a supporting role in the overall approach to language learning. The primary focus of this method was on the learning of grammar rules and the translation of texts from one language to another. As described by Coady and Huckin (1997), vocabulary teaching within the grammar-translation method primarily involved the use of definitions and etymology.

In this method, vocabulary selection was mainly driven by the need to teach and illustrate grammatical rules. The emphasis was placed on understanding the form and structure of words rather than their functional use in communication. Students were expected to memorize and understand the meaning of words through definitions and tracing their origins.

However, it is important to note that the grammar-translation method did not give extensive attention to vocabulary acquisition or development as a standalone objective. Instead, vocabulary instruction was integrated into the larger framework of grammar learning and translation exercises.

This approach to vocabulary teaching may have limited the students' ability to use and apply vocabulary in real-life communicative contexts. While the grammar-translation method served its purpose in certain historical contexts, contemporary language teaching approaches have recognized the importance of a more comprehensive and communicative approach to vocabulary instruction that focuses on usage, context, and meaningful interaction.

### 1.4.2 The Direct Method

In the Direct Method (DM), vocabulary acquisition is considered a fundamental aspect of language learning. This method, also referred to as the natural method, emphasizes that the target language should be learned in a manner similar to acquiring a first language. In this approach, vocabulary and everyday expressions are taught directly and are intended to be used in practical, real-life situations.

The Direct Method focuses on exposing learners to the target language through meaningful and authentic contexts. Vocabulary is introduced through visual aids, objects, gestures, and real-life situations rather than relying heavily on translation or explicit explanations. The emphasis is on the direct association between words and their meanings, without relying on the learner's native language as a bridge.

According to Spahiu and Kryeziu (2021), the Direct Method facilitates the acquisition of correct pronunciation, a better understanding of phrases and idioms, and improved fluency across all language skills. The active use of vocabulary in everyday communication enables learners to develop a more natural and spontaneous command of the language.

In the Direct Method, vocabulary instruction is integrated into the overall language learning process, supporting the development of listening, speaking, reading, and writing skills. The method promotes frequent and meaningful interactions, which aid in the retention and application of vocabulary in various contexts.

By focusing on the direct use of vocabulary in realistic situations, the Direct Method aims to create an immersive language learning experience that fosters language proficiency and communicative competence.

### 1.4.3 The Reading Method (RM)

In the 1920s and 1930s, an approach emerged in the United States that aimed to improve reading proficiency in foreign languages. This approach recognized the importance of vocabulary development in enhancing reading skills. Researchers, such as Al-Dersi, have highlighted the close connection between vocabulary and reading, emphasizing that vocabulary acquisition plays a crucial role in comprehending and effectively engaging with texts.

According to Al-Dersi (2013), there exists a strong relationship between vocabulary and reading. When reading a particular text or exploring a specific topic, individuals have the opportunity to encounter new words and grasp their meanings. This process of acquiring vocabulary through reading is an effective way to expand one's lexicon. In fact, reading can be highly valuable in the development and enrichment of partially known vocabulary.

Reading exposes individuals to a wide range of vocabulary in diverse contexts. The more one engages in reading activities, the greater their exposure to different words and their usage. Through extensive reading, learners have the opportunity to encounter vocabulary from various sources, genres, and subjects, further broadening their linguistic knowledge.

Moreover, reading provides a contextualized and meaningful exposure to vocabulary. Words are encountered within sentences and paragraphs, allowing learners to understand how they are used in specific contexts. This contextual understanding enhances both comprehension and retention of new vocabulary

### 1.4.4 The Audio-lingual Method

In the Audio-lingual teaching method (ALM), the primary focus is on developing and enhancing students' speaking ability. Vocabulary and grammatical patterns are primarily presented and practiced in spoken form. According to Mart (2013), the ALM approach tends to emphasize drills and repetitive exercises to create communicative ability, with vocabulary acquisition being limited to the specific context.

In the ALM, vocabulary instruction is often integrated into the drills and patterns used for language practice. The emphasis is placed on using vocabulary in structured and controlled speaking exercises rather than on explicit vocabulary learning or memorization. The main objective is to develop students' fluency and accuracy in speaking through the repeated practice of language patterns.

While vocabulary acquisition is not the primary focus of the ALM, it does play a role in the overall language learning process. Vocabulary is introduced and reinforced within the context of the language patterns and drills. Students are expected to acquire vocabulary implicitly as they engage in the various speaking exercises and practice dialogues.

However, it is important to note that the ALM may not provide extensive vocabulary exposure or in-depth vocabulary instruction. The focus is more on developing fluent pronunciation and the ability to use grammatical patterns effectively in spoken communication.

To supplement vocabulary acquisition within the ALM, additional activities or resources may be incorporated, such as reading materials or vocabulary exercises outside the typical drill-based approach. These additional components can help broaden students' vocabulary knowledge and provide them with a more comprehensive language learning experience.

### 1.4.5 The Communicative Approach

As with any other method of teaching a foreign language, communicative language teaching has its own principles that touch on how we should teach or learn a language. In the communicative approach, vocabulary has not been the focus of attention; the focus of teaching has been on the appropriateness of using the communicative categories: notional categories (concepts such as time, quantity, and space) and functional categories ( acts such as requests, and denials) (Wilkins, 1972, as cited in Coady and Huckin, 1997).

According to Coady and Huckin's conclusion regarding historical trends in second vocabulary instruction, they reached the fact that the priorities of language teaching throughout history have often emphasized the importance of pronunciation, grammar, and reading. However, there has been little focus on the acquisition of vocabulary. Although the lexicon is almost central to language acquisition and use, it has not been taken as the prior aspect in methodologies of second language teaching.

### 1.5 The Crucial Role of Vocabulary

Teaching or learning any target language involves grasping its vocabulary; vocabulary is considered a significant part of teaching foreign languages. It provides a great and successful contribution to language skill acquisition. Vocabulary represents a crucial element of comprehension. Coady and Huckin(1997) demonstrate that lexical competence is at the heart of communication competence, and ways of measuring the size and nature of the L2 lexicon offer a challenge to researchers. An individual cannot comprehend any text or piece of writing without knowing what most words mean. "The knowledge of vocabulary also plays a very crucial role in the major language skills: listening, speaking, reading, and writing, and its mastery can make a foreign language learner an effective learner, a good listener, reader, and writer"(Al-Dersi, 2013, P.72). Thornbury (2007) states that spending time studying just grammar does not improve your English learning. However, learning words and expressions will show you much improvement in that language" (p.13). Al-Dersi (2013) also insists on the idea that words and expressions are the building blocks of any language that certainly help the learner to communicate effectively, whereas a lack of vocabulary leads him/her to failure in establishing and achieving successful communication"(p.74). Eventually, teachers should focus on the task of teaching foreign language vocabulary to improve the learning capacity in reading, speaking, listening, as well as in writing.

## 2. Vocabulary Teaching and Learning

Although teaching vocabulary has not been taken seriously through the historical stages of language teaching and learning, specialists nowadays are interested in designing materials to achieve the effectiveness of procuring an FL or an SL lexicon. A good vocabulary learner of a second or foreign language has enriching knowledge of vocabulary and knows how to use it, but the question is: how can he get such knowledge? Schmitt (2010) sees that vocabulary learning cannot be taught through the direct teaching of words. However, vocabulary learning needs to be taught more comprehensively than these direct instructions (p.38).

### 2.1 Reading and Vocabulary Development

Reading has always been considered an enrichment of thought; accordingly, reading can also be helpful in enriching the lexical knowledge of any language (L1, L2, or FL) learner.

Reading represents a beneficial skill for foreign language learning and especially for vocabulary retention. There are some ways EFL teachers can be proactive in maximizing incidental learning from exposure. The most obvious way is to simply maximize the exposure itself by establishing an extensive reading program. The role_of wide reading in vocabulary development and learning vocabulary as a foreign language have always been acknowledged. Schmitt (2010) developed the strategy of guessing the meanings of words from contexts, but this strategy needs to be used effectively when the learner knows at least $95-98 \%$ of the tokens in a text. In other words, the unknown words to be guessed have to have plenty of comprehensible supporting context, and the context of a particular ambiguous word has to provide as much information as possible to lead the learner to the effective guessing of a particular meaning (p.42). Learning words from context is an important avenue in vocabulary growth , and it deserves attention and practice in the classroom (Al-Dersi, 2013,p.79). By reading from different contexts and distinctive topics, learners are always getting attached to the new lexicon, it doesn't only help them to get words but also structures: a learner will comprehend a word through context and also how to use it in another context. "Seeing vocabulary in rich contexts provided by authentic texts, rather than in isolated vocabulary drills, produces robust vocabulary learning" (National Reading Panel, 2000, as cited in Marquez, 2011).

### 2.2 Monolingual Dictionary Use and Vocabulary Development

In the context of learning a foreign language, a dictionary can give the learner an enormous amount of vocabulary. "Dictionary use is a valid activity for foreign learners of English, both as an aid to comprehension and production" (Carter \& McCarthy, 1988, p.111). By using a monolingual dictionary, for instance, learners will know how to use words as verbs, nouns, adjectives, or adverbs, not only this, but also examples and different uses of one word can be found and learned from that. Indeed, learning those words from a monolingual dictionary will lead learners to understand them in a spoken or written context they may occur in. Thornbury (2007) has included the strategy of using dictionaries to train good vocabulary learners; the usage of dictionaries in foreign language can be productive both for generating texts and vocabulary acquisition. According to him, learners should be familiar with the dictionary's nature. In other words,
they need to be aware of the skills involved in effective dictionary use, which are: recognizing features of dictionary layout such as the alphabetical order and understanding the way dictionary entries are coded (adj) for adjectives, (sth) for something..etc. (p.151152). Dictionaries are indispensable tools for mastering vocabulary and learning a foreign language in general. They provide learners with access to a vast amount of information about words and their usage. Holi(2012) sees that dictionaries use is an explicit strategy for learning a foreign language's vocabulary or as a communication strategy.

### 2.3 Listening and Vocabulary Development

Schmitt (2010) emphasized that listening in meaning-focused input is necessary for effective vocabulary learning. Repeated listening can lead us to think about the audiolingual method of language teaching and learning, which is the method by which language is taught through drills and repetition. In other words, learners acquire language through listening to words or structures produced by their teachers, and this is an effective way to master a language. Most foreign language learners acquire their basic vocabulary by listening to their teacher's explanation, songs, films, radio, or game instructions.

Bulut and Karasakaloğlu (2017) have stressed the fact that there is a close relationship between listening and vocabulary development because the first words of the mother tongue were formed through listening. A kid, for example, acquires his first words from the environment he lives in. After a significant period of just receiving them by listening to them ; "the first words related to the mother tongue begin to be formed through listening. As speaking, reading, and writing skills begin to be used later on, the richness in vocabulary also begins to increase"(Bulut \& Karasakaloğlu, 2017,p.100).

### 2.4 Online Gaming and Vocabulary Development

Learning from direct instruction can be boring sometimes. However, learning can also occur entertainingly or unconsciously. Utku and Dolgunsöz (2018) note that the process of learning is mainly expanded in an incidental way; learners grasp knowledge without having the idea that they are learning something. This incidental learning can be applied to learning vocabulary too, using several ways that entertain the learner while doing so.

One of these entertaining ways can be shaped by practising an online game. Games generally have a lot of benefits that can work in learning improvement, such as motivating the learners to do more tasks as they will find them amusing when it comes to playing. Individuals or learners may obtain new vocabulary when they follow the instruction if it is in a foreign language, particularly English. They may also practice the language and obtain much more terms when they talk to their foreign partners behind the screens. Utku and Dolgunsöz add that teachers should consider what is required for children's intellectual growth and other individual differences such as personality, language level, background knowledge, attention span, attitudes towards playing games, learning styles, and intelligence types before choosing a game.

### 2.5 Non-native Environment and Vocabulary Development

The vocabulary knowledge in our mother tongue increases from one day to another, and this happens due to the fact that we are living with the language, that is, we hear it and respond to it on a daily basis. From this remarkable development, it is confirmed that effective vocabulary acquisition in a non-native language demands being in a non-native nature. Another requirement is to use it reactively by the ones who are in charge. " The average classroom L2 learner will experience nothing like the quantity nor the quality of exposure that an L1 infant receives. It has been calculated that a classroom learner would need more than eighteen years of classroom exposure to supply the same amount of vocabulary input that occurs in just one year in natural settings"(Thornbury, 2007, P.20). What is deduced from this fact, is being in the original place of a desired language will force the learner to improve his/her vocabulary growth.

### 2.6 Essential Vocabularyvocabulary To Be Learned

As a foreign language speaker or learner, it is necessary to know as many words as possible to run a conversation and develop a piece of writing, or comprehend what you may read in that language. According to Thornbury (2007), most researchers nowadays recommend a basic vocabulary of at least 3,000 word families, while for more specialized needs ,over 5,000 words are needed (p.21). Nation (2006) has calculated that learners need to know about 6,000-7,000 word families for spoken discourse and $8,000-9,000$ for written discourse. Vocabulary is
generally learned for the sake of usefulness. In other words; what is used should be learned. The most important words that learners should know are the most frequent ones, and these frequent words are the words that most often occur in a spoken or written context (Webb and Nation, 2012,p.2)

### 2.7 Exploring Vocabulary Assessment Methods: From Size to Strengths

Assessment is done to check if something works or not. Vocabulary can be tested in several ways. According to Schmitt (2010), assessing vocabulary knowledge has different shapes and targets, and tests can be done to measure the vocabulary size that learners have. Learners are also diagnosed to check what has just been learned in short term (a short-term achievement measure) and in a course (a long-term achievement), to test the strengths and weaknesses of vocabulary achievement. Some of these tests are the Vocabulary Levels Test (Schmitt, 2000; Nation, 2001; Schmitt and Clapham, 2001), the Productive Level Test (Laufer and Nation, 1999), the X_Lex ( $0-5000$ frequency level) and Y_Lex (6000-10,000 level), the Vocabulary Dictation Tests ( Fountain and Nation, 2000) and the Vocabulary Size Test (Nation and Beglar, 2007). Schmitt (2012) demonstrated that the vocabulary level tests can be applied by matching a word with its definition. The Productive Level tests demand learners recall the form of words by using a sentence cue: the first few letters are provided to help them to recognize the exact word is in order not to give other synonyms instead. Through the X Lex and Y Lex tests, learners are required to see words on a computer screen and decide whether they know the words or not by using the yes/ no format. The Vocabulary Dictation Tests are used to determine the extent of a learner's listening vocabulary by dictating paragraphs that contain less-frequent vocabulary. The Vocabulary Size Test measures the extent of vocabulary size by including 140 multiple-choice items with a stem in a non-defining context sentence (p.45).

### 2.8 Mastering Vocabulary Retention: Strategies for Effective Language Learning

One of the common problems that most EFL or ESL learners face during their learning is the lack of keeping the vocabulary that they have learned in their memory, and even if they succeed in acquiring it, they rarely or never use it in the context of speaking or
writing. Vocabulary memorization depends on the way the vocabulary is acquired. Grasping well-acquired and well-memorized vocabulary requires choosing an effective way to reach that objective. Thornbury (2007) stated that researchers have distinguished among three memory systems: short-term storage, working memory, and long-term memory: Short-Term Storage (STS), according to their research, is the ability to hold a limited number of items of information for periods up to a few seconds. It is the sort of memory that is involved when holding a phone number in your head before you tap it, or when repeating a word that has just been heard from the teacher. The working memory represents the long focus we put on words before using them. It is a kind of calculating and reasoning, and it takes about twenty seconds.
As Thornbury mentioned: "the information that is being manipulated can come from an external source via the senses, or it can be 'downloaded' from the long-term memory. Or both. For example, a learner can hear a word (like tangi), download a similar word from long-term memory (like tango), and compare the two in working memory, before deciding if they are the same or different" (Thornbury, 2007, p.23). Long-term memory shapes the permanent capacity achieved of memory's holding. It shifts from 'the quickly forgotten' to 'the never forgotten'. In Thornbury (2007) words, researchers come up with some principles that ensure long-term holding memory ,such as repetition, spacing, pacing, use, motivation, and imaging (p.24).

### 2.9 Strategies for Teaching Vocabulary

To achieve the long-term memory of vocabulary teaching and enhance the effectiveness of acquisition, teachers always stand to use distinctive activities that help learners get an appropriate extent of vocabulary knowledge.

### 2.9.1 Homophones

Homophones are "words which sound alike but are written differently and often have different meanings. For example, the English words no and know are both pronounced /nəv/ in some varieties of British English" (Richards and Schmidt, 2013,p.264). There are plenty of homophones games that can help learners master vocabulary when learning foreign languages. Some of these games are matching, homophone cards, homophone
clips, homophone puzzles, tongue twisters, homophone bingo games, and so on (Susanti, 2018,p.3). Liu (2013), tested the effectiveness of homophones on Hong Kong Chinese children and reached the fact that homophone awareness may directly facilitate the task of vocabulary development :"if children are aware that words (or morphemes) with the same pronunciation may have different meanings, they may be less likely to be confused by the fact that the meaning of one morpheme they learn in one word might not work in another word (because actually, they are homophones)"(Liu et al., 2013,769).

### 2.9.2 Synonyms

Synonyms are two or more words that are related in meaning. Relying on synonyms in the task of vocabulary teaching is appropriate for FL/SL learners. A synonym may be used to clarify the distinctive forms of meaning. For instance, if teachers present new vocabulary by providing suitable synonyms of the target word, learners will acquire a rich background of lexical knowledge. Using synonyms in vocabulary teaching may be beneficial not only in an SL or FL context but also when dealing with the native language or mother tongue. "Synonyms assist to enrich a student's vocabulary bank and provide alternative words instantly. These can be effective since they build on words and phrases that students already recognize"(Abduramanova, 2020,p.35).

### 2.9.3 Exampling or Contextual Information

Presenting vocabulary through providing examples can be helpful, which helps learners recognize words within context, this is advocated by Hanson and Padua(2011), who stated that it is important to make students know how words are in a context;"teachers can accomplish this by having students locate the word in the text, read the sentence, and then discuss as a class how to determine its meaning" (Hanson and Padua, 2011,p.14).

### 2.9.4 Fun Activities

During the learning process, the use of fun activities and games, for example, helps learners remain attentive, for these kinds of activities make them interested in receiving more targets. According to Utku and Dolgunsöz (2018), the use of fun materials in the teaching and learning environment can motivate both learners and teachers. Thus, when using educational games, the thing that matters most is how much it provides a
motivational atmosphere. The students can acquire incidental vocabulary by engaging in fun activities that lead them to enhance their lexical competence.

### 2.9.5 Using Objects

To achieve the target level in the field of foreign language teaching, teachers can use different objects to illustrate the meanings of words by presenting a set of concrete or real objects (realia) , such as clothing items or by just showing pictures, or mimes. Vocabulary can be successfully grasped when it is taught with pictures or real objects (Thornbury, 2007, p.78). Actual object demonstration may prove very effective in the domain of foreign language vocabulary teaching.

### 2.9.6 Using Gestures

Vocabulary acquisition through gestures is always used as a technique for conveying meanings and clarifying ambiguous lexemes in language teaching. The fact was strongly supported by Carter and McCarthy(1988), referring to the appearance of the total physical response as a technique of language teaching: '"These associations of vocabulary with physical actions have a dramatic effect on memory because students must commit themselves to the learning task by performing appropriate actions" (Carter \& McCarthy, 1988,p.67).

According to Tellier(2008), many studies have shown that teachers of a foreign or second language tend to make extensive use of gestures for demonstrating the meaning of words in a targeted manner (p.219). Teaching vocabulary using body language or physical gestures gives learners the ability to retain and memorize vocabulary.

### 2.9.7 Visual Aids

As with any other technique of vocabulary teaching in a target context, the use of visual aids can handle all the obstacles that a teacher of a foreign language may face when presenting new vocabulary to the learners. According to Marquez( 2011), visual aids can be pictures, posters, word calendars, charts, graphic organizers, picture books, television, and computer screens that help students smoothly understand and grasp the main points learned in the classroom (p.1). These sorts of aids are essential, especially in the context of teaching
foreign languages so that teachers avoid mother-tongue reliance and misunderstanding issues.

## Conclusion

After realizing the fact that vocabulary represents the core of languages, nowadays researchers have become preoccupied with the development of updated and appropriate materials and strategies that help to enhance the effectiveness of vocabulary acquisition. All the techniques mentioned above have been scientifically proven by researchers, but it is debatable whether each one of them can effectively involve long-term memory in grasping vocabulary within target languages. Ongoing research work is carried out to maximize the level of vocabulary retention through the use of these techniques.

## Chapter two:

# Flashcards and vocabulary <br> acquisition 

## Chapter Two: Flashcards and Vocabulary Acquisition

## Introduction

Teaching foreign languages requires the strategic use of diverse materials and techniques to foster successful language acquisition and proficiency. Vocabulary is one important element in this field. Teaching vocabulary requires using a variety of equipment and activities. Visual aids reliance which could be pictures, posters, or realia is one of the various strategies that teachers frequently rely on. Under the umbrella of visual aids flashcards used are taking place to help learners grasp more lexicon in a target language and reach a specific purpose of teaching.

## 1. Flashcards Definition

Flashcards are referred to as the representation of signifier and signified. In other words; they are cards that show words with their meanings mostly in the form of pictures. They could be presented on an online platform or as printed cards. They are used frequently in the field of ESL or EFL teaching and learning.

Chang (2006, p. 21) describes a flashcard as a learning tool that can be made from materials such as oak or cardboard, with dimensions measuring approximately $18 \times 6$ inches. It consists of a word, a sentence, or a simple configuration drawing. Chang emphasizes the importance of having large, organized letters on the flashcard that are visible to everyone in the classroom. Additionally, it is suggested that using capital letter rather than script is preferable, as they are more comprehensible for learners, especially when viewed from a distance.

According to Komachali and Khodareza (2012), a flashcard is a piece of cardboard that contains a word, sentence, or simple picture. They suggest that flashcards serve as beneficial tools for practising and reinforcing new letters, syllables, words, and other information. Flashcards have the flexibility to cover a wide range of subjects, including historical dates, formulas, vocabulary, or any content that can be learned using a question-and-answer format. "Flashcards are cards bearing words, numbers, or pictures that are briefly displayed ( as by a teacher to a class) usually as learning aid"(‘Definition of FLASHCARD', 2023).

## 2. History of Flashcards Use in Language Teaching

Flashcards have a long history in language teaching and learning. According to Colbran (2015), when paper became available for the first time in the eighteenth century, it gave birth to several forms of study materials , such as paper-based flashcards, which are cards that contain information on both sides. Its earlier usage was initiated by a British woman and author of educational books for children, Favell Lee Mortimer, who used to teach reading and religious education to children, and her teaching witnessed significant popularity at that time. One of her innovative books presented a set of illustrated phonics cards with drawings.

According to Hung (2015), learning vocabulary with word lists has been taking place for a long time. It was generally popular when the Grammar Translation Method dominated language teaching (p.108). The Direct Method uses total English, relying on visual aids. The instructions for an English lesson were presented in foreign English words. Although learners are not able to understand, their mother tongue will not be included or taken as a means of demonstration. Instead, all visual aids were taken into consideration. "Through the demonstration of visual aids, learners understand the concepts. Various pictures, posters, videos, and other such aids prove to be the best options. A learner with the help of maps and pictures may learn how to give directions"(Macwan, 2015,p.95).

## 3. Types of Flashcards

In the context of foreign language applications, flashcards serve as a valuable technique for teaching vocabulary, aiming to convey information and meanings. (Nugroho ,2012, as cited in Haycraft ,1978,p.102-106) and categorizes flashcards into two types: word flashcards and picture flashcards. Word flashcards consist of printed words, which can be displayed on a board or distributed to students in the class to illustrate word order or sentence structure. On the other hand, picture flashcards are effective for presenting, practising, and reviewing vocabulary, such as depicting characters in a dialogue, facilitating drills, and identifying verbs (p.5).

Word flashcards


Figure 1: Word Sentence Cards (www.twinkl.com)

## Picture flashcards



Figure 2: Verb Action Flashcards Present Tense (www.twinkl.com)

According to Gilfgren (2012), flashcards can be divided into various distinctive types, the following are some of them :

### 3.1 Quiz Cards

To make teaching vocabulary interesting, teachers can use quizzes that are appropriate for their learners. Quizzes can include different themes and various subjects that fit the learner's level for example, for students at lower levels, quizzes may involve multiple-choice questions instead of giving them simple tests; this type of flashcard encourages learners to have different perspectives around distinctive themes. Below is an example of history quiz cards:


Figure 3: Model of quiz cards for kids (www.twinkl .com)

### 3.2 Role Play Cards

Learners will be encouraged to enhance their knowledge enjoyably. They can use their existing knowledge concerning words in a foreign language to play roles using flashcards so that they
learn more vocabulary in target language. Learners will be provided with information and communicative skills through these playing role cards.


Figure 4: Hot Seat Jobs Oral Language Role-play Challenge Cards. ( Retrieved from www.twinkl.com)

### 3.3 Flashcards with Associations, Synonyms, and Antonyms

Flashcards including associations, synonyms ,or antonyms can be used to convey new vocabulary for learners. They help them develop their vocabulary knowledge and fluency in a foreign language. These types of flashcards orient learners to look at the pictures to comprehend the target meaning in a targeted way.

### 3.3.1 Association Flashcards



Figure 5: Transport Flashcards (Retrieved from www.twinkl.com)
These kinds of flashcards are needed to provide learners with a set of elements that have a relationship with the topic that is going to be presented by a teacher. When a teacher presents a topic about transportation, he has to prepare associative flashcards that contain the means of transportation, such as ship, train, truck, etc.

### 3.3.2 Opposites/Antonyms Flashcards

Opposite flashcards are a helpful strategy for vocabulary acquisition. Learners will have fun learning when they deal with opposite flashcards in a gamey way. They can learn opposite words through playing games such as guessing the opposite word, and matching cards with opposites.


Figure 6: Opposite Words Matching Activity (Retrieved from www.twinkl.com )

### 3.3.3 Synonyms Flashcards

Using synonyms flashcards is an effective method that teachers can use to expand their learners' vocabulary. Synonyms cards are designed to help students learn new words or synonyms in a fun and exciting way. To play, students are required to read the words and then match them to another word that has the same meaning.


Figure 7: Synonyms Flashcards ( www.twinkl.com)

### 3.4 Flashcards with Times and Numbers

It could be tough for beginner foreign language learners to grasp numbers, dates and time in a foreign language. However, things will be easy if the teaching is done through the use of flashcards, including pictures that help learners retain them easily.


Figure 8: Numbers Flashcards
(www.twinlk.com)


Figure 9: Time Flashcards
(www.twinlk.com)

## 4. Flashcards and Vocabulary Teaching

Vocabulary flashcards are card aids that most teachers use to provide learners with new vocabulary that they are not familiar with. Thornbury (2007) considers flashcards an effective technique for teaching vocabulary; learners should be trained to prepare and use a set of word cards. Flashcards are considered a simple way to study or learn new vocabulary. They are designed to include new vocabulary on one side and familiar ones on the other:"Through this practice, students are provided with immediate feedback. By shuffling the cards, students learn using a phenomenon known as spaced learning, which tends to lead to higher retention of material than learning in a session where vocabulary is learned en masse" (Hulstijn, 2001, as cited in Byrd \& Lansing, 2016).

Word cards can also be seen as a combination of word lists that offer more flexibility in creating interactive vocabulary activities for classroom teaching and self-testing. Learners are getting more benefits from word lists, and some studies have investigated the effect of using paper-based flashcards. Komachali and Khodareza (2012), for example, have proven that the use of flashcards effectively helped learners' vocabulary growth ,compared to traditional vocabulary instruction without such aids. Komachali and Khodareza (2012) describe that vocabulary flashcards can be a fun, colourful, and creative way to aid in the memory and retention of vocabulary words. Flash cards are a tried and tested teaching and learning device inside and outside the classroom, for kids and adults alike. (p.138)

The following represents an example of a double-sided flashcard that includes an adjective with its dictionary's definition:


Figure 10: front side of vocabulary
flashcard (Retrived from www.Cram.com)


Figure 11:back side of vocabulary flashcard (Retrived from www.Cram.com)

### 4.1 Flashcards Activities for Vocabulary Instruction

Flashcards are types of visual aids that help learners to guess or recognize the intended meaning conveyed by the teacher or instructor. Teaching vocabulary through using flashcards is an exciting activity to handle for both teachers and learners. According to Advance Consulting for Education (2019), there are many activities of flashcards that teachers may use with learners in their teaching career. Some of them will be tackled as the following:

### 4.1.1 Flashcards and Drills

Using this activity of drilling, the teacher has to hold up a flashcard with a picture on it, read the word, and the students have to repeat the word. The flashcards are put on the board the teacher writes the word that represents the flashcard and drills for the student again. After that, the words written under the flashcards will be deleted to check if students are able to drill them. This interesting activity can be performed differently by making it fun with running. In other words, the teacher places the flashcards all over the room and then mentions the vocabulary items that are associated with the flashcards learners have to run to the correct flashcard, standing in front of it and saying the words as a class

### 4.1.2 Point to and Guessing Game

"Point to" is a kind of flashcards activity where the teacher posts the flashcards on the board and all around the room, then he says one of those words affixed on the board, and the students have to point to the correct flashcard. The guessing game, on the other hand, is performed when the teacher shows only a part of a flashcard to his students, and they are required to guess what word the flashcard bears. In this game, the teacher gradually reveals more and more until the word caught by the students.

### 4.1.3 Flashcards and Drawing

Another type of activity can be done using flashcards, where students have to work in pairs. One of the partners obtains a flashcard containing a picture, and the other partner gets a blank piece of paper. The student with the filled flashcard starts to describe the picture held by the flashcard to his partner, and the one with the empty card begins to draw what has been described. Partners compare their pictures when they finished. The same activity could be executed alternatively: all the students in the classroom get a blank piece of paper and then the teacher describes the picture that existed in the flashcard, and students on the other side draw the picture that has been described by their teacher.

### 4.1.4 Odd-one and Charades

In the "odd one activity", flashcards should be arranged into a set of four. Three of which belong to the same category, and one does not belong to the same category as others then the teacher displays the cards at the front and learners have to point to the odd word. Charades require participants to think and communicate non-verbally. In this activity, a student goes to the front of the class while the teacher shows them a flashcard. The student then acts out the flashcard's message in order to prompt their classmates to guess the word or phrase it represents. These activities can be carried out through teamwork as well. One individual from each team selects a flashcard and performs gestures or actions to help the opposing team guess the correct word.

### 4.1.5 Memory Games

Memory games can be played using flashcards. In this activity, the teacher sticks cards on the board for the students to memorize. The students are then asked to close their eyes, and the teacher proceeds to remove one or two cards. When the students open their eyes, they must try to recall the missing word. The teacher prompts them about the missing word each time a card is removed from the board. To increase the difficulty level, the teacher can add more cards to the board. This activity can also be conducted by drilling all the words initially and gradually removing them until all the words are gone.

### 4.1.6 Story Writing

By following the instructions of this activity, students are asked to select five or six flashcards from the cards displayed in the classroom and try to write a short story that fits the words printed on the flashcards. In this activity, students tend to use their imagination to build a story with the help of those word cards.

## 5. The Benefits of Using Flashcards in the Teaching Process

According to Lin and Liu (2009), the use of flashcards in foreign language teaching provides accessibility and enhances the learning process. Flashcards enable learners to quickly acquire target knowledge. Teachers employ flashcards in a targeted manner, aligning them with the theme of the lesson. For instance, when teaching about charity, the teacher may use flashcards depicting donations, poverty, solidarity, sickness, refugees, and other relevant images. This approach helps students grasp the key points related to the theme and actively engage with the lesson.

Daily practice with flashcards, as highlighted by Lin and Liu (2009), facilitates effective growth in lexical knowledge. Additionally, web-based flashcards offer advantages for both students and instructors in terms of target language fluency. They empower students to independently manage their fluency practice while providing teachers with greater control over instructional design (Lin \& Liu, 2009, p. 267).

In vocabulary instruction, flashcards play a crucial role in conveying information and ideas, especially when foreign words are unfamiliar to learners. Rahmasari (2016) argues that carefully
selected pictures can tell stories and enhance comprehension in teaching. Rahmasari (2016) further states that clear pictures are more effective in conveying the meaning of concrete words than paraphrases or definitions.

## Conclusion

Flashcards are enriching visual aids that promote the process of teaching and learning foreign languages. It is one of the techniques that helps teachers avoid blockage when dealing with new vocabulary presented in a target language. Flashcards are one of the necessary materials that all teachers have to integrate into their teaching. Flashcard implementation in classrooms makes learners excited, attentive, and motivated for learning acquisition.

# Chapter three: The field 

 Work
## Chapter Three: The Field Work

## Introduction

Flashcards are a popular study tool used by students of all ages to help them retain information quickly and effectively. This chapter attempts to demonstrate scientifically and contextually the extent of printed flashcards' effectiveness in teaching EFL vocabulary, more particularly in EFL middle school classrooms in Adrar, Algeria. This chapter consists of two main parts. One part is devoted to the research structure of the two experiments conducted in two middle school classrooms in Adrar (Omar Ibn Abdelaziz and Boualala Mohamed - El Mansouriya). The other part is devoted to describing the questionnaire administered to middle school English teachers . The chapter covers the data collection process and the analysis of the collected data. It concludes with a discussion of the research findings.

## 1. Research structure

The main objective of this chapter is to evaluate the efficacy of printed flashcards as a tool for teaching vocabulary and acquiring lexical knowledge. Through empirical analysis and experimentation, we aim to determine the effectiveness of using printed flashcards to enhance vocabulary acquisition. This study seeks to investigate the impact of printed flashcards on pupils' comprehension and retention of vocabulary, ultimately contributing to the understanding of effective language learning techniques. The findings from this research will provide valuable insights into the benefits of incorporating printed flashcards into vocabulary teaching methods.

## 2. Research variables

The present study is composed of two major variables:
Independent variable: The use of printed flashcards
Dependent variable: EFL vocabulary acquisition

## 3. The research methodology

This study aims to assess the effectiveness of using printed flashcards for vocabulary acquisition in EFL middle school classrooms. Data will be collected through observation, tests,
and assessments in two middle schools located in Adrar. Additionally, a questionnaire will be distributed to twelve middle school teachers to gather their feedback on the use of flashcards. The data collected will be analyzed to draw conclusions about the effectiveness of using flashcards for vocabulary acquisition.

## 4. The population

To generalize the research findings, it is necessary to ensure that the sample chosen from the population of the research is representative. According to APA 7th edition, the population is defined as "the entire set of individuals or objects having some common characteristics and defined in terms of eligibility criteria determined by the researcher" (APA, 2020, p. 50). The population is the entire group that the researcher is interested in studying, and it may be defined by various criteria such as age, gender, location, or specific health conditions. Accurately defining the population is an important aspect of research design, as it helps to ensure that the findings of the study are valid and applicable to the target population. According to the definition above, the population to which the findings of the experiment could be generalized is Adrar middle school pupils.

## 5. The sample

According to APA 7th edition, a sample is defined as "a subset of the population selected for study in a research project" (APA, 2020, p. 50). This definition emphasizes that a sample is a smaller, representative subset of the larger population that is being studied. The process of selecting a sample typically involves using specific criteria, such as random sampling or stratified sampling, to ensure that the sample is representative of the larger population.

To ensure the representativeness and validity of the research results, it is necessary to adopt random sampling of data sources. Therefore, random sampling represents a major factor that can affect the validity of the research. In this case, the sample of the two experiments was chosen randomly from the middle school of Omar Ibn Addelaziz in the city centre of Adrar and the middle school of Boualala which is located in El Mansouriya, four kilometres away from the city centre. The fourth-year middle school pupils were selected as research subjects; for practical reasons, cluster sampling was adopted ,and, therefore, one fourth-year classroom out of three
available ones was randomly selected from each of the two middle schools. The total number of fourth-year pupils in these two middle schools will be shown in the tables below :

| 4 MS classes in Omar | Class | Number of pupils |
| :--- | :--- | :--- |
| Ibn Abdelaziz middle |  |  |
| school | Class 1 | 43 pupils |
| 4 MS 1 | Class 2 | 43 pupils |
| 4 MS 2 | Class 3 | 43 pupils |
| 4 MS 3 | Class 4 | 42 pupils |
| 4 MS 4 | Class 5 | 40 pupils |
| 4 MS 5 |  |  |

Table 1: The number of Omar Ibn Abdelaziz middle school fourth-grade pupils
MS: middle school

| 4 MS classes Boualala | Class | Number of pupils |
| :--- | :--- | :--- |
| Mohamed- El |  |  |
| mansouryia middle | Class 1 | 34 pupils |
| school | Class 2 | 33 pupils |
| 4 MS 1 | Class 3 | 33 pupils |
| 4 MS 2 |  |  |
| 4 MS 3 |  |  |

Table 2: The number of Boualala Mohamed middle school fourth grade pupils
MS: middle school

## The total number of 4MS in both schools

The total number of fourth-grade pupils in school 1 is 211 pupils, and it is divided into five classes. One class was chosen randomly (4MS1) to be used as a sample of the experimental design (pre-testing and post-testing ) of the research study regarding that middle school. The total number of the sample class was 43 pupils, and 9 of them were absent. The sample becomes effectively 34 pupils. The total number of fourth-grade pupils in School 2 is 100, and it is divided into three classes. Similarly to what was done in S1, one class was taken randomly to
represent the whole middle school. Class (4MS2) was chosen to represent the school, and the sample taken includes 33 pupils.

| Middle school | Class | Number of pupils |
| ---: | :---: | :---: |
| S01 | X 1 | 34 pupils |
| S02 | Y 2 | 33 pupils |

Table 3: The number of pupils in the sample (S1 and S2)
S 01: school one " Omar Ibn Abdelaziz middle school"
S 02: school two "Boualala Mohamed - El Mansouriya middle school"

Note: "within a subject" experimental design was used instead of the controlled group owing to the fact that not all pupils inside the classroom share the same characteristics, they don't have the same level of English knowledge; some of them are slow learners.

## 6. Data collection instruments

The data of the current study were collected using two major instruments. The first instrument was a single-group experiment designed in two middle schools, while the second instrument was a questionnaire to be answered by middle school teachers from different districts in Adrar.

### 6.1 Middle school experiments

### 6.1.1 Experiment one

### 6.1.1.1 The observation

The current S01 experiment at "Omar Ibn Abdelaziz" middle school was based on an observation session that lasted for one hour. In a lesson on community and citizenship, the teacher used flashcards to teach new vocabulary related to giving to charity. Some students were active participants, while others missed the session. The teacher began by discussing familiar vocabulary words like "old," "sick," and "poor." Then, flashcards were used to introduce and explain new vocabulary. The visual aids helped students understand and remember the words in the context of charitable actions. This approach connected the new vocabulary to the theme of
community and citizenship, promoting engagement and comprehension. The use of flashcards facilitated effective vocabulary learning and enhanced language acquisition in the classroom.

Based on what has been observed concerning vocabulary teaching techniques in Omar Ibn Abdelaziz Middle School, the following hypotheses were formed:

H 1: printed flashcards are a more effective tool for vocabulary teaching than traditional methods of teaching (exampling, synonyms, antonyms, etc.)

H 2: the traditional method of vocabulary teaching is more effective than using flashcards

### 6.1.1.2 Hypothesis Testing

Hypothesis testing is a crucial tool in scientific research as it allows researchers to make evidence-based conclusions and refine and improve their theories and explanations of the natural world. In this case of a one group experimental design composed of 34 pupils, the hypothesis is tested by comparing the difference between the pre-test and post-test scores of the treatment.

### 6.1.1.3 Pre-testing

Pre-testing can provide valuable feedback that can help improve the quality and validity of the research. In this context, the pre-testing form is demanded to ensure that pupils who have no familiarity with the treatment will be used.

To guarantee that learners have no prior exposure to the words intended for inclusion in the treatment, the pre-test took the form of the following question:

Who has an idea of the following words?


| To fight | Solidarity | Pain | Scared |
| :--- | :--- | :--- | :--- |

### 6.1.1.4 Scoring of the pre-test

No pupil gave a correct answer to the vocabulary prompts presented to them, which means that they don't have lexical knowledge of the words above.

### 6.1.1.5 The treatment

The scoring of the pre-testing procedure gave room for conducting a comparison between two techniques of vocabulary teaching. The treatment of the current study involved comparing the effectiveness of teaching vocabulary with flashcards and without flashcards (using the traditional method: examples, synonyms, antonyms). Four flashcards were designed to fit the lesson's objective (the theme of giving charity), and they were planned to provide visual aids for learning new vocabulary in the EFL context. This first treatment was administered over 15 minutes. The participants received knowledge about the target words and started to provide equivalents in their mother tongue (Arabic). Then they were asked to drill the words one by one. The rationale behind using flashcards is to provide a visual aid that may increase vocabulary growth. The other treatment had the same duration of 15 minutes, where learners were provided with another set of four words. However, these other words were explained using the traditional method of vocabulary explanation of the same theme (giving charity). This treatment aims to ensure that participants have received other interventions to compare the effects of both treatments on the same group of participants in a controlled and systematic way.

### 6.1.1.6 The treatment protocol

To gather information from these experiments, this protocol outlines the specific steps or procedures that will be used to implement the intervention.

The session was organised as follows:
Step one: warming up pupils by making a quick revision of the previous lesson that I observed in the previous session ( 5 min ).

Step two: showing learners a picture of a mother writing a letter, then asking them what they see and think.

Step three: reading a script about the mother's letter of advice to her daughter, then asking learners to answer some questions based on what they have listened to.

Step four: the task of treatments was introduced as follows:
Words such as solidarity - scared - pain - to fight were presented using flashcards.

Other words such as Duty - donation - traditions - to judge were presented using traditional explanation ( gestures- examples- synonyms- antonyms ).

Step five: the post-testing
In order to check out the result of the intervention, a post-test was planned to be completed in 15 minutes. This latter was administered as a matching activity where all eight words were combined; learners were asked to match the words with their appropriate pictures. The purpose of this activity is to know which words were retained well.

Note: The post-test activity has pictures of all words: the ones explained with flashcards and the ones explained without flashcards, although the administered treatment used flashcards for only one set of four words.

Task three: match the words with their pictures

1- To fight

2- Pain


### 6.1.1.7 Post-test scoring of the $S 1$ experiment

The post-test activity consisted of 8 vocabulary items, half of which were explained with flashcards and the other half without flashcards. Scoring was based on matching the correct word with its corresponding picture, with a maximum score of 8 . The lesson was planned as usual, and a small task was integrated into the lesson plan as a lexical knowledge activity. Every step in the lesson was related to the students' educational curriculum.

### 6.1.2 Experiment two

### 6.1.2.1 The observation

The following S2 experiment conducted at El Mansouriya Middle School was also based on an observational session that lasted for one hour. The pupils of the 4 MS 2 class were active enough
to respond to the coming lesson, they were encouraged to receive the lesson targets. The teacher discussed the use of the conjunction "whereas" and provided some vocabulary words that are commonly used with it. The teacher encouraged students to recall these words from a previous lesson rather than using flashcards to aid in memorization. By doing so, the teacher aimed to develop the students' memory retention skills and promote independent learning. The students were then allowed to practice using "whereas" and the associated vocabulary in sentence construction, with the teacher providing feedback on their usage.

Based on what has been observed in the El Mansouriya Middle School 4MS2 classroom, the following hypothesis was formed :

H1: pupils are encouraged to retain vocabulary without using flashcards;
H2: pupils are encouraged to retain vocabulary by using flashcards

### 6.1.2.2 Testing Hypothesis

During the hypothesis testing phase, this classroom followed the same steps of the first school's experimental design . The second experimental group of S 2 contains 33 pupils who received pre and post-testing. And the experiment is eventually tested by comparing the scores of the test's results.

### 6.1.2.3 Pre-testing

The pre-test of this experiment took the same form as the previous pre-test. However, the lexical vocabulary theme was different it follows

Who has an idea of the following words?

| To deliver | An enemy | A martyr | A land |
| :--- | :--- | :--- | :--- |
| Or |  |  |  |
| Freedom | A refugee | A camp | To fight |

### 6.1.2.4 Scoring of pre-test

No one provided me with a correct answer, which eventually meant that they did not have lexical knowledge of the words above.

### 6.1.2.5 The treatment

The pre-testing phase of the study allowed for a comparison between two vocabulary teaching techniques: using flashcards and using traditional methods (such as providing examples, synonyms, and antonyms). Four flashcards were specifically designed to align with the lesson's objective, which focused on the theme of Palestine refugees. These flashcards served as visual aids to facilitate the learning of new vocabulary in the English as a Foreign Language (EFL) context. The first treatment, using flashcards, lasted for 15 minutes. During this time, participants were introduced to the target words and asked to provide their equivalents in their native language (Arabic). They then engaged in drilling exercises to practice the words. The purpose of using flashcards was to enhance vocabulary acquisition through visual support. The second treatment, also lasting 15 minutes, involved teaching four different words using traditional vocabulary instruction methods, focusing on the theme of giving charity. This treatment aimed to provide alternative interventions and enable a controlled and systematic comparison of the effects of both techniques on the same group of participants.

### 6.1.2.6 The treatment protocol

To gather information from these experiments, this protocol outlines the specific steps or procedures that will be used to implement the intervention

The session was organised as the following:
Step one: warming up pupils by asking them if there are still colonized countries and naming them, then I have stuck the Palestine flag flashcard, which received learners' interaction to answer questions such as:
a- What does it represent in the flag below?
b- What do you know about this country?
c- What do you think about the people living there?
d- Are they free? What about their children? Do they share the same life and dreams as you do?
e- What are their dreams?
Step two: Ask pupils to open their textbook on page 80 and tell me what they see in the picture. Then they were asked to read the text to complete bibliographical notes in their copybooks.

Step three: The task of treatments was introduced as follows :
Words such as " freedom", "camp", "refugee", "to fight" are presented using flashcards.

## Other words such as:

"Martyr", "land", "enemy", "to deliver" are presented using traditional explanation (gestures, examples, synonyms, antonyms )

Step four: the post-testing
To check out the result of the intervention tailor, a post-test was planned to be answered in 15 minutes. This latter was administered as a matching activity where all eight words were combined; learners were asked to match the words with their appropriate pictures. The purpose of this activity is to know which of the words was retained well.

Note: The post-test activity has pictures of all words: the one explained with flashcards and the one explained without flashcards, whereas the treatment used flashcards with just four words.

Task: Match the following words with their pictures

Task: Match the following words with their pictures


Note: the task contains the pictures of the given words, pupils are asked to match 1-8 with their appropriate a-h pictures.

### 6.1.2.7 Post-test scoring of the $S 1$ experiment

The scoring of the post-test activity, as the S 1 post-test, the same step was pursued. The test design was based on the participant's ability to match the correct vocabulary words with their pictures. The post-test activity includes a total of 8 words: 4 words explained with flashcards and the other 4 words explained without flashcards. Each correct match was awarded one point, resulting in a maximum possible score of 8 . Which aimed to see exactly which of the techniques was more beneficial. Ethical considerations were taken into account by obtaining approval from the educational authorities and ensuring that no harm or discomfort was caused by the treatment. The lesson was planned and instructed habitually. A small task was integrated to be marked as a lexical knowledge activity in the lesson plan, and every single step within the lesson was related to their educational career.

### 6.2 Teacher's questionnaire

The second tool utilized in this research study is a questionnaire that was distributed to middle school teachers in Adrar, a province in Algeria. The questionnaire gathered responses from several districts within Adrar, including Zaouiat Konta, Tamentit, Aoulef, Timmi, and Tilouline. The questionnaire aimed to gain insights into the use of flashcards as a teaching tool, and the responses obtained from Adrar middle school teachers are expected to provide valuable information for the study.

## The aim of the teacher's questionnaire

The aim of this questionnaire administered to middle school English teachers in Adrar is to gather information on the use of flashcards in teaching and to generalize the findings to as many locations in Adrar as possible. By targeting a diverse range of districts within the city, the questionnaire seeks to capture a wide range of experiences and perspectives on the use of flashcards in teaching. The goal is to generate findings that apply to middle school teachers across Adrar, and to provide insights into effective teaching methods that can improve student learning outcomes. The results of the questionnaire will be analyzed and used to inform future teaching practices in Adrar, and potentially beyond.

## The description of the teacher's questionnaire

The teacher's questionnaire used in this study aims to gather information on the use of flashcards in teaching vocabulary. The questionnaire includes questions about the teacher's background, such as their gender, age, years of teaching experience, and the district of Adrar where they teach. The questionnaire also includes questions about the frequency of using printed flashcards in teaching as well as the specific circumstances in which teachers rely on printed flashcards to teach vocabulary. The questionnaire asks for the teacher's opinions on the effectiveness of printed flashcards in promoting motivation and vocabulary memorization, and whether they would recommend their colleagues use printed flashcards to enhance learners' vocabulary.

## 7. The analysis of data collection

### 7.1 The analysis of two middle school experiments

### 7.1.1 The analysis of data from the S 1 experiment

To determine whether there is a significant difference between the performance of the two categories of words, a hypothesis test or statistical significance test is used $t$. In this case, a twosample $t$-test to compare the mean percentage of correct answers between the group taught with flashcards and the group taught without flashcards.

## The statistical analysis of correct flashcard words 4/4

Here is a table that shows the number of students who received each score:

| Number of <br> correct words | 4 | 3 | 2 | 1 | 0 | Total |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Number of <br> pupils | 14 | 9 | 4 | 3 | 4 | 34 |
| Total score | 56 | 27 | 8 | 3 | 0 | 94 |

Table 4: The distribution of the correct flashcard answers in S1

Out of 34 pupils who took the test, 14 answered all 4 questions correctly, while 9 pupils got 3 out of 4 correct. Additionally, 4 students got 2 out of 4 correct, and only 3 pupils answered 1 question correctly. Lastly, 4 students answered none of the questions correctly. Overall, the results show that the majority of pupils performed relatively well on the test, with more than half of them getting at least 3 out of 4 questions correctly. However, there is still room for improvement, as a significant portion of the class scored lower than that.

To find the percentage of correct answers given to words explained with flashcards, I divide the total number of correct answers by the total number of possible answers and then multiply by 100:

The total number of correct words explained using flashcards answered by all 34 students is 94 $(14 \times 4+9 \times 3+4 \times 2+3 \times 1+4 \times 0)$.

Percentage of correct answers $=($ Total number of correct answers $/$ Total number of possible answers) x $100=(94 / 136) \times 100=69.11 \%$. Therefore, the percentage of correct words answered by all 34 students is $69.85 \%$.

Here is a possible table to visually represent the data:

|  | Number of Correct |  |  |
| :--- | :--- | :--- | :--- |
| Group | Answers | Number of Possible <br> Answers | Percentage of Correct <br> Answers |
| With |  |  |  |
| FCs | 94 | 136 | $69.11 \%$ |

Table 5: the percentage of correct flashcards answers (S1)
This table shows that out of the total possible 136 correct answers for the group taught with flashcards, the students gave 94 correct answers, resulting in a percentage of $69.11 \%$ correct answer

## The statistical analysis of traditionally explained correct words (non-flashcards) 4/4

Here is a table that shows the number of students who received each score:

| Score | $4 / 4$ | $2 / 4$ | $1 / 4$ | $0 / 4$ | Total |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Number of <br> pupils | 14 | 3 | 15 | 2 | 34 |
| Total score | 56 | 6 | 15 | 0 | 77 |

Table 6: the distribution of non-flashcard correct answers in S1

Out of 34 pupils, 14 pupils answered all 4 questions correctly without using flashcards. Three pupils scored only 2 out of 4 correctly. Fifteen pupils were able to answer only 1 out of the 4 questions correctly. Two pupils were unable to answer any of the 4 questions correctly. This indicates that the majority of students struggled to answer the questions without the help of flashcards, with only a few students able to answer all the questions correctly.

The statistical formula to calculate the percentage of correct answers for all 34 students is:
Percentage of Correct Answers $=($ Total number of correct answers $/$ Total number of questions $)$ x 100

In this case, the total number of correct words explained using flashcards answered by all 34 students is $77(14 \times 4+3 \times 2+15 \times 1+0 \times 2) / 136 \times 100=56.61 \%$

Percentage of correct answers $=($ Total number of correct answers $/$ Total number of possible answers) $\times 100=(77 / 136) \times 100=56.61 \%$. Therefore, the percentage of correct words answered by all 34 students is $56.61 \%$

Here is a table to visually represent the data:

|  | Number of Correct | Number of Possible <br> Answers | Percentage of Correct <br> Answers |
| :--- | :--- | :--- | :--- |
| Group | Answers |  |  |
| No |  | 136 | $56.61 \%$ |
| FCs | 77 |  |  |

Table 7: the percentage of non-flashcards correct answers (S1)

Comparing the two results

| Group | Number of Correct <br> Answers | Number of Possible <br> Answers | Percentage of Correct <br> Answers |
| :--- | :--- | :--- | :--- |
| With FCs | 95 | 136 | $69.11 \%$ |
| No FCs | 77 | 136 | $56.61 \%$ |

Table 8: the comparison of both scores (non-flashcards correct answers Vs flashcards correct answers in S1)

The table shows the comparison of the percentage of correct answers between the two groups one taught with flashcards and the other without flashcards. The group taught with flashcards had 95 correct answers out of a total of 136 possible answers, resulting in a percentage of $69.11 \%$ correct answers. On the other hand, the group taught without flashcards had 77 correct answers out of the same total possible answers, resulting in a percentage of $56.61 \%$ correct answers. The data indicate that the group taught with flashcards had a higher percentage of correct answers compared to the group taught without flashcards.

### 7.1.2 The analysis of data in the S 2 experiment

To determine whether there is a significant difference between the performance of the two categories of words, a hypothesis test or statistical significance test is used. In this case, a twosample t -test to compare the mean percentage of correct answers between the group taught with flashcards and the group taught without flashcards were used.

## The statistical analysis of correct flashcards words $4 / 4$

The following table shows the distribution of scores from $4 / 4$ to $0 / 4$ :
Here is a table that shows the number of students who received each score:

| Number of <br> correct <br> words | 4 | 3 | 2 | 1 | 0 | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of <br> pupils | 13 | 6 | 6 | 3 | 5 | 33 |
| Total score | 52 | 18 | 12 | 3 | 0 | 85 |

Table 9: The distribution of flashcards' correct answers in S2
Out of the 33 pupils who took the test, 13 answered all 4 questions correctly, indicating the highest group of pupils with full marks. While 6 pupils scored 3 out of 4 questions correctly, 6 students answered 2 out of 4 questions correctly, and only 3 pupils answered 1 question correctly. However, 5 pupils failed to answer any questions correctly. Overall, 19 out of 33 pupils performed well, but there is still a need to improve their understanding of the material, particularly in areas where students struggled the most.

To find the percentage of correct answers given to words explained with flashcards, I divide the total number of correct answers by the total number of possible answers and then multiply by 100 :

The total number of correct words explained using flashcards answered by all 33 students is 85
$13 \times 4+6 \times 3+6 \times 2+3 \times 1+5 \times 0=52+18+12+3+0=85$
Percentage of correct answers $=($ Total number of correct answers $/$ Total number of possible answers) x $100=(85 / 132) \times 100=64.39 \%$. Therefore, the percentage of correct words answered by all 33 students is $64.39 \%$.

Here is a table to visually represent the data:

| Gumber of Correct | Number of Possible <br> Answers | Percentage of Correct <br> Answers |
| :--- | :--- | :--- | :--- |
| With FCs 85 | 132 | $64.39 \%$ |

Table 10: the percentage of flashcards correct answers in S2
This table shows that out of the total possible 132 correct answers for the group taught with flashcards, the students gave 85 correct answers, resulting in a percentage of $64.39 \%$ correct answer

## The statistical analysis of traditional explained correct words 4/4

Here is a table that shows the number of students who received each score:

| Score | $4 / 4$ | $3 / 4$ | $2 / 4$ | $1 / 4$ | $0 / 4$ | Total |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Number of <br> pupils | 14 | 4 | 2 | 7 | 6 | 33 |
| product | 56 | 12 | 4 | 7 | 0 | 79 |

Table 11: the distribution of non-flashcard correct answers in S1

Among the 33 pupils, 14 students were able to answer all 4 questions correctly even without using flashcards. Four pupils managed to answer 3 out of the 4 questions correctly, while 2 pupils only got 2 out of 4 correct. On the other hand, 7 pupils only answered 1 question correctly, while six students failed to answer any of the questions correctly. Overall, these results suggest that while some students were able to perform well without the aid of flashcards, a significant portion still struggled and may need further support and guidance to improve their understanding of the material. The statistical formula to calculate the percentage of correct answers for all 33 students is:

Percentage of Correct Answers $=($ Total number of correct answers / Total number of questions) x 100

In this case, the total number of correct words explained using flashcards answered by all 33 students is $79(14 \times 4+3 \times 4+2 \times 2+7 \times 1+6 \times 0) / 132 \times 100=59.84 \%$

Percentage of correct answers $=($ Total number of correct answers $/$ Total number of possible answers) $\times 100=(79 / 132) \times 100=59.84 \%$.Therefore, the percentage of correct words answered by all 33 students is $59.84 \%$. Here is a possible table to visually represent the data:

|  | Number of Correct |  |  |
| :--- | :--- | :--- | :--- |
| Group | Answers | Number of Possible <br> Answers | Percentage of Correct <br> Answers |
| No |  |  |  |
| FCs | 79 | 132 | $59.84 \%$ |

Table 12: The percentage of non-flashcard answers in S2
Comparing the two results of S2 :

|  | Number of Correct <br> Answers | Number of Possible <br> Answers | Percentage of Correct <br> Answers |
| :--- | :--- | :--- | :--- |
| With |  | 132 | $64.39 \%$ |
| FCs | 85 | 132 | $59.84 \%$ |
| No FCs | 79 |  |  |

Table 13: The comparison of both scores (non-flashcards correct answers Vs flashcards correct answers in S2)

According to the table provided, the group that utilized flashcards exhibited a higher percentage of correct answers ( $64.39 \%$ ) in comparison to the group that did not use flashcards (59.84\%).

### 7.2 The analysis of the teacher's questionnaire

Section One: teachers' profile
Item 1: what is your gender?

| Gender | Participants | Percentage |
| :--- | :---: | :--- |
| Male | 5 | $41.7 \%$ |
| Female | 7 | $58.3 \%$ |

Table 14: teachers' gender

According to the table, the majority (58.3\%) of the participants are female, while the rest (41.7\%) are male.

Item 02: how many years of experience do you have?

| Teaching experience | $1-5$ years | $5-10$ years | More than 10 years |
| :--- | :--- | :--- | :--- |
| Participants | 4 | 2 | 6 |
| Percentage | $33.3 \%$ | $16.7 \%$ | $50 \%$ |

Table 15: Teachers' teaching experience
Based on the data shown in table, it appears that the majority of teachers (50\%) have more than 10 years of teaching experience, while $33.3 \%$ of teachers have 1-5 years of experience and $16.7 \%$ have 5-10 years of experience.

Item 03: Which district of Adrar province do you teach in?

| Region | Aoulef | Adrar | Timmi | El <br> Mansouriya | Zaouiat <br> Kounta | Tamentit | No <br> exact <br> region |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Participants | 2 | 1 | 2 | 1 | 2 | 2 | 2 |

Table 16: Participant Distribution across Districts in Adrar Province
The table shows that the participants come from several districts across the wilayas of Adrar, with no district having a clear majority. Aoulef, Timmi, Zaouiat Kounta, Tamentit, and "No exact region" all had 2 participants each, while Adrar and El Mansouriya had 1 participant each.

## Section02 : Teaching English Vocabulary

Item 01: The Frequency of flashcards use by teachers

| Answers | Never | Occasionally | Sometimes | Often | Always |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Participants | 0 | 0 | 4 | 3 | 5 |

Table 17: Frequency of flashcard use by teachers

Based on the table provided, the majority of participants (5 out of 12) reported using flashcards always in their teaching career. Three participants reported using flashcards often, while four reported using them sometimes. None of the participants reported using flashcards occasionally
or never. This suggests that flashcards are a commonly used tool in the teaching practices of the participants.

Item 02: Teachers' reliance on flashcards in their teaching

Do you rely on using printed flashcards to teach :
12 responses


Figure 12: Teachers' reliance on flashcards in their teaching.
Item 03: To what extent do you agree or disagree with the following statements?

| Statement | Strongly <br> Agree | Agree | Neutral | Disagree | Strongly <br> Disagree |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Printed flashcards are effective for <br> vocabulary acquisition | 6 | 3 | 0 | 2 | 1 |
| Printed flashcards are not effective for <br> vocabulary acquisition | 0 | 0 | 0 | 6 | 5 |
| Using printed flashcards in teaching makes <br> learners attentive and receptive to new <br> vocabulary | 5 | 3 | 1 | 2 | 1 |
| Using printed flashcards in teaching makes <br> learners not attentive and not receptive to <br> new vocabulary | 1 | 0 | 1 | 4 | 6 |

Table 18: Teachers' Opinions about Flashcards Effectiveness

In this section, a total of 12 participants were involved. The findings indicate that a significant majority, comprising $75 \%$ of the participants, either agreed that printed flashcards are effective for vocabulary acquisition. Conversely, $25 \%$ of the participants disagreed with this statement. Additionally, a significant majority of $83 \%$ of participants disagreed or strongly disagreed with the notion that printed flashcards are less effective for vocabulary acquisition. Moreover, $67 \%$ of the participants either strongly agreed or agreed that using printed flashcards in teaching makes learners more attentive and receptive to new vocabulary. However, $33 \%$ of participants either disagreed, strongly disagreed, or neither agreed nor disagreed with this assertion. These findings provide insights into the participants' perspectives on the effectiveness and benefits of printed flashcards for vocabulary acquisition in the context of this study.

Item 04: Teachers Opinions about flashcards use

In your opinion


Figure 13: Teachers' opinions about flashcards use
Based on the data provided, it seems that the majority of participants agree that using printed flashcards encourages teaching and learning motivation and promotes vocabulary memorization. Ten (10) out of twelve (12) participants agreed with statement one, while only one participant disagreed with it. Similarly, for statement two, 10 out of 12 participants agreed, while only one participant disagreed.

## Item 05:

Do you recommend your colleague teachers of using printed flashcards for enhancing learners' vocabulary?
12 responses


Figure 14: Flashcards recommendation

Since all participants answered 'yes' to the question of recommending the use of printed flashcards, it can be inferred that there is a high level of agreement among the participants. Figure 14 illustrates this with a single slice representing the 'yes' responses, indicating that $100 \%$ of the participants recommended the use of printed flashcards.

## 8. Discussion of the results

In comparing the two groups, the results suggest that using flashcards was more effective in enabling pupils to provide correct answers to the questions. The group that utilized flashcards achieved a higher percentage of correct answers ( $64.39 \%$ vs. $59.84 \%$ ). Notably, the disparity between the percentages was more pronounced in the second set of results ( $69.11 \%$ vs. $56.61 \%$ ). This indicates that using flashcards had a greater impact on enhancing students' understanding and retention of the material.


Figure 15: Average of school one and school two (no Fcs/ with Fcs vocabulary retention )

The findings from the questionnaire further contribute to the assessment of the effectiveness of printed flashcards for vocabulary acquisition. In addition to the experimental results, the majority of participants expressed the view that printed flashcards are an effective tool for enhancing vocabulary acquisition. Their perception aligns with the positive outcomes observed in the experiments. Importantly, participants did not perceive printed flashcards as having a detrimental effect on learners' attention and receptiveness to new vocabulary.

These combined results provide comprehensive insights into the effectiveness of using printed flashcards for vocabulary acquisition. The experimental data demonstrate that using flashcards led to a higher percentage of correct answers, suggesting improved understanding and retention of the material. Moreover, the questionnaire results indicate that participants generally viewed printed flashcards as an effective tool without negative implications for learners' attention and receptiveness to new vocabulary.

The findings from both the experiments and the questionnaire support the conclusion that printed flashcards are a valuable tool for enhancing vocabulary acquisition. The combination of empirical data and participant perceptions strengthens the overall evidence for the effectiveness of printed flashcards in the context of vocabulary teaching and acquisition. These findings have important implications for educators and practitioners seeking to enhance vocabulary learning outcomes, emphasizing the benefits of incorporating printed flashcards as a teaching technique.

## Conclusion

When considering the results of the two experiments and the questionnaire, it can be concluded that printed flashcards are a valuable tool for enhancing vocabulary acquisition. The results of the experiments indicate that the use of flashcards improves the students' performance with regards to understanding and retaining the target vocabulary. The questionnaire results also support this conclusion, with the majority of teachers perceiving printed flashcards as an effective tool for enhancing vocabulary acquisition.

## Limitations of the Study

The study has several limitations. Firstly, the small sample size may limit the generalizability of the results, and a larger sample size would be needed to confirm the findings. Secondly, the data relied on self-reported responses and may be subject to bias or errors in recall. The study also had a limited focus on the use of flashcards in a specific context, which may not be generalizable to other settings or learning contexts. Additionally, the lack of a control group limits the ability to draw conclusions about the effect of using flashcards on vocabulary acquisition compared to other study methods. Lastly, the study did not include a formal memorization test to provide more concrete evidence of the effectiveness of printed flashcards in vocabulary acquisition.

## General conclusion

Based on the comprehensive findings of this study, it can be concluded that using printed flashcards as a vocabulary teaching tool in EFL middle school classrooms is an effective strategy for enhancing vocabulary acquisition. The rigorous examination of the data collected from experiments conducted in two middle schools in Adrar combined with the insightful feedback obtained through a questionnaire completed by twelve middle school teachers from various districts in Adrar provides robust evidence supporting the effectiveness of printed flashcards in vocabulary teaching.

The experimental results revealed a significant improvement in vocabulary retention among the students who utilized flashcards compared to those who did not. The analysis of the data demonstrated that the group using flashcards achieved a higher percentage of correct answers ( $64.39 \%$ ) in comparison to the non-flashcard-using group (59.84\%). This finding indicates that the use of printed flashcards positively influences on students' understanding and retention of vocabulary. Furthermore, the disparity between the percentages was even more pronounced in the second set of results, with the flashcard group attaining a much higher percentage of correct answers ( $69.11 \%$ ) compared to the non-flashcard group ( $56.61 \%$ ). This disparity underscores the enhanced efficacy of using flashcards in aiding students' comprehension and retention of the material.

The questionnaire responses from the middle school teachers in various districts of Adrar further support the positive impact of printed flashcards as a vocabulary teaching tool. The
majority of participants expressed a favourable perception of printed flashcards as an effective tool for enhancing vocabulary acquisition. This alignment between the teachers' perceptions and the experimental outcomes adds weight to the conclusion that printed flashcards are an effective strategy for vocabulary teaching. Importantly, the teachers did not perceive any negative impact on learners' attention and receptiveness to new vocabulary when using printed flashcards.

The implications of these findings are significant for educators and practitioners involved in teaching English as a foreign language. The effectiveness of printed flashcards in vocabulary teaching can be attributed to their ability to engage students actively, enhance their attention, and facilitate the retention of vocabulary knowledge. Integrating printed flashcards into classroom instruction can lead to improved vocabulary acquisition and overall language proficiency among EFL middle school students.

It is worth noting that while this study provides compelling evidence for the effectiveness of printed flashcards use, further research is warranted to explore the long-term impact, optimal implementation strategies, and potential variations across different learner populations. Additionally, investigating the specific instructional approaches and techniques that can be combined with printed flashcards to maximize their effectiveness would be beneficial.

In conclusion, the findings of this study support the assertion that using printed flashcards as a vocabulary teaching tool in EFL middle school classrooms is a highly effective strategy for enhancing vocabulary positive acquisition. The combined evidence from the experiments and the questionnaire highlights the impact of printed flashcards on students' comprehension, retention, and attitudes towards vocabulary learning. By implementing printed flashcards in their instructional practices, educators can foster an engaging and effective learning environment that promotes successful vocabulary acquisition among EFL middle school students.

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## Appendices

Appendix 01: the task (post-test ) used at "Boualala Middle School"
Task : Match the following words with their pictures( post-test of S2):

1- To deliver

2- Refugee

3- Land

4- A camp

5- Enemy

6- Martyr

7-Freedom

8-To fight
a-

b-
c-
d-

e-

f-

g-

h-


Appendix 02: the task (post-test ) used at "Omar Ibn Abdelaziz" Middle School

3-

4-

5-

6-

7-

8-

9-

10-

Appendix 03:

b-

c-

e-

h-
g-

The Flashcards used in School One : "Omar Ibn Abdelaziz"


Solidarity

pain


Scared


To fight

The Flashcards used in School Two "Boualala Mohammed"


Freedom


A refugee


To fight


A camp

## Appendix 04:

## Teachers' Questionnaire

## Dear teacher,

Thank you for your participation in this study.

I am Oumelkheir Benziane, currently pursuing my Master's Dissertation at the University of Ahmed Draia- Adrar, majoring in Linguistics and Didactics. I'm conducting a study on assessing the effectiveness of using printed flashcards for vocabulary acquisition in Adrar middle school classrooms. You are kindly requested to complete this questionnaire as accurately and truthfully as possible. Rest assured that your valuable opinions will be kept private and confidential.

## Section One: teachers' Profile

1- Are you male or female?
2- Which district of Adrar province do you teach in?

## Section Two: teaching English Vocabulary

1- In your teaching career, how often do you use flashcards?
2- Do you utilize printed flashcards as a teaching tool for any of the following purposes: a) Vocabulary instruction? b) Grammar instruction? c) Phonetics instruction? d) Other instructional purposes?

3- To what extent do you agree or disagree with the following statements regarding your experience of using printed flashcards? ( Likert scale answers)
a- Printed flashcards are effective for vocabulary acquisition
b- Printed flashcards are less effective for vocabulary acquisition
c- Using printed flashcards in teaching makes learners more attentive and receptive to new vocabulary.
d- Using printed flashcards in teaching makes learners less attentive and less receptive to new vocabulary.

4- In your opinion (Likert scale answers )
a- using printed flashcards encourages teaching and learning motivation
b- Printed flashcards promote vocabulary memorization

5- Do you recommend your colleague teachers of using printed flashcards for enhancing learners' vocabulary? (yes/no)

تعلم المفردات دائمًا ما يعتبر جزءًا أساسيًا من تعليم اللغة. يحناج طلاب اللغة الإنجليزية كلغة أجنيبة إلى اكتساب أكبر ققر ممكن من المفردات لتعزيز قراتهم التواصلية وتوسيع معرفتهم وفهمهم للغة. إن ضرورة اكتساب معرفة المفردات تدفع الباحثين إلى التحقيق في الأساليب الفعالة التي تساهم في تحقيق هدف الاحتفاظ بالمفردات. في السنوات الأخيرة، أصبحت البطاقات التعليمية المصورة مستخـمة على نطاق واسع من فبل متعلمي اللغة لبناء مفرداتهم. تهدف هذه الدراسة إلى نتقيم فعالية استخدام البطاقات التعليمية المطبوعة في اكنساب المفردات في صفوف المدارس المتوسطة لتعليم اللغة الإنجليزية كلغة أجنبية. تشمل الدراسة استعراضًا للمراجع الحالية حول هذا الموضوع ودراسة استخذام البطاقات التعليمية في صفوف اللغات الأجنيية. سيشمل جمع البيانات إجراء تجارب في صفين من مدارس متوسطة في أدرار، وتحديداً متوسطة "بوعلالة محمد" ومنوسطة "عمر ابن عبد العزيز". بالإضافة إلى ذلك، تم توزيع استبيان على اثثي عشر مدرسًا للغة الإنجليزية في متوسطات مختلفة في أدرار لجمع آرائهم حول استخدام البطاقات التعليمية كأداة لتعليم المفردات. أظهرت هذه الدراسة أن البطاقات التعليمية المطبوعة هي أداة فعالة لتعزيز اكتساب المفردات، كما يوضح ذلك نتائج التجارب الاستكشاف والاستبيان. أظهر الطلاب الذين استخدموا البطاقات التعليمية فهمًا أفضل واحتفاظًا أكثر بالمواد مقارنة بالذين لم يستخدموها. كما أن الغالبية

العظمى من المشاركين في الاستنيان اعتبروا البطاقات التعليمية المطبوعة أداة فعالة لاكتساب المفردات.
الكلمات الرئيسية: المفردات، تعلم اللغة، تدريس اللغة، البطاقات الفلاش المطبوعة، طلاب اللغة الإنجليزية كلغة أجنبية.

## Résumé

L'apprentissage du vocabulaire a toujours été considéré comme un élément essentiel de l'enseignement des langues. Les élèves d'anglais en tant que langue étrangère (ALE) ont grandement besoin d'acquérir autant de vocabulaire que possible pour améliorer leurs capacités de communication et élargir leurs connaissances et leur compréhension de la langue. La nécessité de maîtriser le vocabulaire conduit les chercheurs à étudier des méthodes efficaces qui contribuent à atteindre l'objectif de rétention du vocabulaire. Ces dernières années, les cartes mémoire sont devenues largement utilisées par les apprenants de langues pour développer leur vocabulaire. Cette étude examine l'évaluation de l'efficacité de l'utilisation de cartes mémoire imprimées pour l'acquisition de vocabulaire dans les classes d'ALE du niveau collégial. La recherche comprend une revue de littérature sur les recherches actuelles sur le sujet et l'étude de l'utilisation des cartes mémoire dans les classes de langues étrangères. La collecte de données consistera à mener des expériences dans deux classes de deux collèges d'Adrar, à savoir le collège El Mansouriya "Boualala Muhammad" et le collège "Omar Ibn Abd et Aziz". De plus, un questionnaire a été administré à douze enseignants d'anglais du collège de différents districts d'Adrar pour recueillir leurs commentaires sur l'utilisation des cartes mémoire comme outil d'enseignement du vocabulaire. Cette étude a révélé que les cartes mémoire imprimées sont un outil efficace pour améliorer l'acquisition de vocabulaire, comme le démontrent les résultats de deux expériences et d'un questionnaire. Les élèves qui ont utilisé les cartes mémoire ont montré une meilleure compréhension et mémorisation du matériel par rapport à ceux qui ne les ont pas utilisées. La majorité des participants au questionnaire ont également considéré les cartes mémoire imprimées comme un outil efficace pour l'acquisition de vocabulaire.

Mots clés : vocabulaire, apprentissage des langues, enseignement des langues, cartes mémoire imprimées, élèves d'ALE

