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## MASTER THESIS

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**Investigating the Impact of Video Games in Enhancing Vocabulary  
Acquisition of EFL Learners:  
A Case Study of first year Pupils at Imam Ali middle School of  
Touggourt**

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**Declaration**

I hereby declare that my thesis “Investigating the Impact of Video Games in Enhancing Vocabulary Acquisition of EFL Learners “the case of pupils at the level of Imam Ali middle school in Touggourt, is based on materials that has not been submitted previously, in a whole or in a part, it is the result of my own investigation. Not any single word, phrase, clause, paragraph, text, or any other kind of others work is reproduced here without being cited, quoted and dated according to the scientific requirements of the research. This thesis is my own proper work.

**Dedication**

*In the Name of God, Most Gracious, Most Merciful*

*All the Pray is due to God alone, the Sustainer Of all the worlds*

*I dedicate this work to:*

*To my First and Last teacher, my mother who proves me with her unconditioned love and I ask*

*Allah the Almighty to protect her.*

*To my father, sister, and brother.*

*To my grandmother and grandfather who never stopped advising me.*

*To my teachers who taught me valid lessons in English language and life*

*To my friends Souliman, Rahim, Raouf, Souhib, Djamal, Zakaria, Islam, Yasmin, Asma, Samiha*

*and all of my friends.*

*To the ECCB club*

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**Abstract**

Vocabulary is an important element in writing and speaking. Most English students suffer from the limitation of vocabulary during writing an essay or a paragraph, or during speaking in a presentation in oral session. The research aims to investigate the impact of video games in enhancing vocabulary acquisition of EFL learners. The study hypothesizes that playing video games has a positive impact on enhancing learners' vocabulary. For this purpose, a correlational research with mixed method approach was used to check out the hypothesis. Then, two data gathering tools were used which are pre-test and post-test were used to test the correlation coefficient between the variables by taking a first grade class from Imam Ali middle school in Touggourt with twenty-seven (27) pupils, also the structured observation during the treatment. The results show that EFL learners suffer from vocabulary limitations. As a result, playing video games as a hobby or as a daily practice is recommended to enhance the vocabulary acquisition for being a great combination of all type of vocabulary practice (reading, listening, communicating, and practicing).

### **List of Acronyms**

EFL: English Foreign Language.

SLA: Second Language Acquisition.

MDA: mechanics, dynamics and aesthetics.

SDT: Self-determination theory.

EG: Experimental group.

CG: Control group.

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ملخص

## **General Introduction**

Approaches have changed and improved throughout the years, with new methods and teaching techniques being constantly presented. One of the focal points of these new approaches refers to the use of non-didactic tools that facilitate and motivate learning, such as music and movies. It is also believed that video games are useful to people of all ages in learning EFL, complementing or even being responsible for language development. Others, have explored the effects of video games in English acquisition and learning, both from practical and theoretical perspectives. Even though definitive results are yet to be presented, these studies have shown that the use of video games in SLA should be considered by researchers and educators alike. That said, it is known that the acquisition of a foreign language takes place in many environments and occurs through different processes. Therefore, the main objective of this work is to lay out the possibilities of acquiring English vocabulary from video games.

### **1. Statement of the Problem**

Teachers of English foreign language face a barrier of vocabulary insufficiency, and shortage of time with their students at the level of middle school. A student cannot understand a text or a dialog without knowing what most of the words mean. It is true that students acquire most of the words indirectly, through everyday experience whether it is written or spoken, yet it still not enough.

This problem got my interest because it was an experiment in my life, and in other's life. Besides, it was taken into consideration in Finland, and showed how video games can be good in the informal learning of English.

### **2. Aims of the Study**

The general aim of the current study is to contribute in the development of the vocabulary competence of English Language learners through Video Games. It aims to investigate the role of video games in enhancing EFL learners' vocabulary, the ways that are used, and the utility of the vocabulary in studies fields. More specifically, this study aims to:

- Enhancing students' vocabulary.
- The used techniques of gaining vocabulary.
- Ability of using the attained vocabulary in studies fields.

### **3. Research Questions**

This research seeks to answer the following research questions:

RQ1: Do video Games help students to encounter with more and different vocabulary?

RQ2: In what ways can video games enhance the students' vocabulary?

RQ3: Can the attained vocabulary from Video Games be used in studies fields?

### **4. Research Hypotheses**

Based on the above research questions, we propose the following research hypotheses:

RH1: We do agree that Video Games help students to encounter with more and different vocabulary beside the understanding of their meaning.

RH2: We hypothesise that Video Games enhance students' vocabulary through the gameplay and online interaction.

RH3: Vocabulary that is learned from video games surely used in studies fields.

### **5. Significance of the Study**

This study intended to discover if there is a relation between the variables, video games and vocabulary acquisition, and if the acquired vocabulary will contribute to the learners' educational carrier. Moreover, this work will provide an insight on video games' sides, specifically, the language acquisition one.

## **6.The Research Methodology**

This study will undergo a mixed method approach (qualitative and qualitative) seeking to find if video games enhance the learners' vocabulary, and how much is it effective. The researcher opted for the correlational research method to study the variables and whether there is a relationship between the dependent variable which is the vocabulary acquisition and the independent variable which is video games.

### **6.1. Population and Sampling**

We choose the population of the First grade in Imam Ali middle school in Touggourt. We will deal with a class of twenty-seven (27) pupils divided into two groups, treatment group and control group.

### **6.2. Data Collection Tools**

The selected tools for the data collection in this work are pre-test, treatment, and post-test to analyse the correlation coefficient between the variables. Also the classroom observation during the treatment.

## **Chapter1**

### **TEACHING VOCABULARY**

#### **Introduction**

Lately, many researchers ponder the effective techniques, and strategies in their studies that can be used to innovate an appropriate also a motivating status to learning; so that learners would be able to learn the language parts and aspects consciously; through prepared strategies, or unconsciously; through fortuitous learning. Discussing the substantial problems about teaching vocabulary in the classroom is what to be held in this chapter. Also, it contains few notes related to the stages of knowing a word, effective selecting criteria of vocabulary, and some used techniques for presenting new vocabulary.

#### **1.1. Definition and Types of Vocabulary**

Language knowledge cannot be attained without knowing its vocabulary which is defined in Oxford Advanced Learner's Dictionary (online version, 2011) as "All the words that a person knows or uses, or all the words in particular language". Nation (2001) further describes the relationship between vocabulary knowledge and language use as complementary; knowledge of vocabulary enables language use and, contrariwise, the use of language leads to the increase of vocabulary knowledge. Based on Carter's perspective (1998), there are two aspects from where a word can be defined. The orthographic perspective; series of letters that represents a word where hyphen and apostrophe may be included, and which can be separated by leaving a space or by putting punctuation mark. On the other hand, the semantic aspect, a word is "a minimum meaningful unit of language" (p. 4-5). Therefore, a word is a concatenation of letters that are organized in certain order for a meaning transmission. Vocabulary also can be

defined as " words we must know to communicate effectively; words in speaking (expressive vocabulary) and words in listening (receptive vocabulary)" (Neuman & Dwyer, 2009, p. 385).

“vocabulary acquisition is central to language acquisition, whether the language is first, second, or foreign" (Decarrico, 2001, p. 285). If learners lack vocabulary knowledge, they soon discover that their ability limited comprehending or expressing themselves (Decarrico, 2001; Nation, 2001). “Without grammar very little can be conveyed, without vocabulary nothing can be conveyed”. (Wilkins in Thornbury 2002, p. 13). Wilkins affirms that vocabulary is a firm fundamental in delivering and reporting messages, and grammar is not enough in learning any language. Currently, an alteration of the importance is occurring, from grammar to vocabulary; because vocabulary is the primus step to start acquiring any language. As an example, learners with vocabulary shortage will face many difficulties to use the language or to communicate.

Knowing the vocabulary types is an essential while defining it. Hatch and Brown (1995), indicated two kinds of vocabulary, receptive vocabulary and productive vocabulary. Receptive vocabulary means words that learners recognize and understand when they are used in context, but which they cannot produce. The type of vocabulary that learners recognize when they see or meet in reading text but do not use it in speaking and writing (Stuart, 2008). On the other hand, productive vocabulary is the words that the learners understand, able to pronounce them correctly, and use them constructively in speaking and writing. There are variations in vocabulary definition, nevertheless, the common one is the knowledge of words and their meaning.

Vocabulary is conclusive to be mastered by the learner in order to understand the language. Vocabulary mastery is needed to express our ideas, and to be able to understand other people's sayings. Hornby (1995) defined the mastery of vocabulary as definitive knowledge or

complete skill. From that definition, mastery means complete knowledge or great skill that makes someone a master in a certain subject. Vocabulary mastery refers to the great skill in processing words of a language (Susanto & Fazlinda, 2016). It is an individual achievement and possession; Due to that reason, the main responsibility in increasing the vocabulary knowledge is in the individual himself. The success in extending the vocabulary mastery requires their own motivation and interest on the words of a language. As in conclusion, mastering the vocabulary is an individual's great skill in using words of a language, which is acquired due to their own interests, needs and motivation. Vocabulary mastery plays an important role in the four language skills, and it has to be considered that vocabulary mastery is one of the needed components of language (Susanto & Fazlinda, 2016).

## **1.2. The Word Knowledge**

It is hypothesized that the knowledge of a given word involved in proficient reading is multi-faceted, including not only knowledge of its definition, but also knowledge of the multiple related meanings and shades of meaning for the word, knowledge of its semantic associations, knowledge of its meanings in different contexts, and knowledge of its different morphological forms (Graves, 2006; Stahl & Nagy, 2006). Moreover, these aspects of linguistic knowledge of specific words (e.g., their meanings, functions, and associations) are thought to be distinct from metalinguistic knowledge about words in general (e.g., awareness of how words are constituted of smaller meaningful units, sensitivity to how context provides information about word meanings).

When describing knowledge of specific words, researchers commonly distinguish between breadth and depth of vocabulary knowledge. Breadth of vocabulary refers to the number of words known, or the size of the mental lexicon whereas depth of vocabulary refers

to the excellence of knowledge about the known words (e.g., Anderson & Freebody, 1981; Stahl & Nagy, 2006). While breadth is thought of as the number of words that a student knows (i.e., a count of dichotomous items), depth is thought of as a connection of some familiarity with a word to full ownership of a word's various meanings and the associated ability to use it appropriately in deferent contexts. Depth also includes knowledge of multiple related meaning, including shades of meaning for a word, knowledge of semantically related words including subordinates (e.g., golden retriever for dog) and superordinates (e.g., animal for dog), and the syntactic and pragmatic knowledge involved in knowing whether and how to use a word in specific contexts.

The empirical basis for the distinction between depth and breadth comes primarily from experimental studies in which instructional approaches targeting “deep” word knowledge has been found to be effective in promoting reading comprehension (e.g., Beck, Perfetti, & McKeown, 1982; Carlo et al., 2004; Lesaux, Kieffer, Faller, & Kelley, 2010). Multiple reviews and meta-analyses (e.g., National Institute of Child Health and Human Development [NICHD], 2000; Stahl & Fairbanks, 1986) concur that instruction that provides rich information about words' meanings and uses in multiple, varied contexts is preferable to instruction that aims to level up the number of words for which students know a single definition, if the main goal is enhancing reading comprehension. However, because these studies use breadth and depth to distinguish between treatment conditions rather than between dimensions on which students' vocabularies vary naturally, it does not necessarily follow that this distinction is meaningful or reliably measurable when describing individual differences.

In fact, there appears to be some disagreement or confusion in the literature as to whether the breadth-depth distinction refers to only intra-individual differences (i.e., that an individual's knowledge of different words varies on a continuum from shallow to deep) or whether it also

refers to inter-individual differences (i.e., that breadth and depth are separable dimensions on which individuals vary). On one hand, researchers have stressed that individuals who know more words also know more about the words they know (e.g., Curtis, 1987; Elshout-Mohr & van Daalen-Kaptein, 1987; Perfetti, 2007), suggesting that the relationship between individual's levels of breadth and depth may be so strong that the two will be ambiguous and hard to distinguish.

### **1.3 Teaching Vocabulary Techniques**

Commonly, there are several techniques concerning the teaching of vocabulary. However, there are some things that have to be remembered by most English teachers if they want to present a new vocabulary, or lexical items to their students. It means that the English teachers want students to remember new vocabulary. Then, it needs to be learnt, practiced, and revised to make sure students will not forget. Techniques used by teachers depend on some factors, such as the content, the available time, and its value for the learners (Takač, 2008). This makes teachers have some reasons in using certain techniques in presenting vocabulary. In presenting one planned vocabulary item, the teacher usually combines more techniques, instead of using one single technique. Teachers, furthermore, are suggested to employ planned and prepared vocabulary presentation as various as possible (Pinter, 2006). Here are some techniques of teaching vocabulary as stated by Brewster, Ellis, and Girard (1992):

#### **a. Using Objects**

This technique includes the use of realia, visual aids, and demonstration. They can function to help learners remember vocabulary in a better way, because our memory for objects and pictures is very reliable, and visual techniques can act as hints for remembering words (Takač, 2008). In addition, Gairns & Redman (1986) state that real objects technique is

appropriately used for beginners or young learners, and when presenting concrete vocabulary. Objects can be used to show meanings when the vocabulary consist of concrete nouns. Introducing a new word by showing the real object often helps learners to memorize the word through visualization. Objects in the classroom or things brought to the classroom can be used.

### **b. Drawing**

Objects can either be drawn on the blackboard or drawn on flash cards. The latter can be used again and again in different contexts if they are made with cards and covered in plastic. They can help young learners easily understand and realize the main points that they have learned in the classroom.

### **c. Using Illustrations and Pictures**

Pictures connect students' prior knowledge to a new story, and in the process, help them learn new words. There are many vocabularies that can be introduced by using illustrations or pictures. They are good means of making the meaning of unknown words clear. They should be used as often as possible. The list of pictures includes: posters, flashcards, wall charts, magazine pictures, board drawings, stick figures and photographs. Pictures for vocabulary teaching come from many sources. Apart from those drawn by the teacher or students, they are sets of colourful pictures intended for schools. Pictures cut out of newspapers and magazines are very useful as well. Nowadays many readers, vocabulary books and course books contain a vast number of attractive pictures that present the meaning of basic words. The teacher can use learning materials provided by the school. They can also make their own visual aids or used pictures from magazines. Visual support helps learners understand the meaning and helps to make the word more memorable.

### **d. Contrast**

Some words are easily explained to learners by giving them their opposites, for instance, the word "good" contrasted with the word "bad". But some words are not. It is almost impossible to contrast the words whose opposite is the gradable one. When the word "white" is contrasted with the word "black", there is an "in between" word "grey". Furthermore, verb "contrast" means to show a difference, like photos that reveal how much weight someone lost by contrasting the "before" and "after" shots. Many more studies have also shown that vocabulary is best acquired if it is similar to what is already learnt (e.g. Rudska et al., 1982, 1985), it is not surprising that learning synonyms is a way to expand our vocabulary. Learning about synonyms is important also because this is how dictionaries are organised. Putting bilingual dictionaries aside, monolingual dictionaries essentially use words to explain words, and in this process, synonyms are often used (Ilson, 1991).

#### **e. Enumeration**

An enumeration is a collection of items that is a complete ordered listing of all the items in that collection. It can be used to present meaning. In other words, this technique helps when any word is difficult to explain visually. We can say "clothes" and explain this by enumerating or listing various items. Teacher may list a number of clothes e.g. a shirt, a skirt, trousers etc. and then the meaning of the word "clothes" will become clear. The same is true of 'vegetable' or "furniture", for example (Harmer 1991).

#### **f. Mime, Expressions and Gestures**

Teachers tend to gesture a lot (Sime, 2001; Hauge, 1999), especially when addressing young learners and beginners. It is well known that "teaching gestures" capture the students' attention and make the lesson more efficient. Using analyses of video recordings of English lessons to French students, Tellier (2007) determined three main roles for teaching gestures:

management of the class (to start/end an activity, to question students, request silence, etc.), evaluation (to show a mistake, to correct, to congratulate, etc.) and explanation to give indications on syntax, underline specific prosody, explain new vocabulary, etc.). Teaching gestures appear in various shapes: hand gestures, facial expressions, pantomime, body movements, etc. They can either mime or symbolise something and they help learners to conclude the meaning of a spoken word or expression, providing that they are unambiguous and easy to understand. This teaching strategy is thus relevant for comprehension (Tellier, 2007). However, its use may depend on the kind of gesture used by the teacher. It has been highlighted that foreign emblems, for instance, may lead to misunderstandings when it is not known by the learners (Hauge, 1999; Sime, 2001). In addition to supporting comprehension, teaching gestures may also be relevant for learners' memorisation process. Indeed, many second language teachers who use gestures as a teaching strategy declare that they help learners in the process of memorising the second language lexicon. Many of them have noticed that learners can retrieve a word easily when the teacher produces the gesture associated with the lexical item during the lesson. Others have seen learners (especially young ones) spontaneously reproducing the gesture when saying the word. The effect of gestures on memorisation is thus something witnessed by many but hardly explored on a systematic and empirical basis (Teller, 2008).

#### **g. Guessing from Context**

Guessing from context as a way of dealing with unfamiliar vocabulary in unedited selections has been suggested widely by L1 and L2 reading specialists (Dubin, 1993). Nation and Coady (1988) claim that there are two types of contexts. The first type is the context within the text, which includes morphological, semantic and syntactic information in a specific text, while the second one is the general context, or non-textual context, which is the background

knowledge the reader has about the subjects being read. Nation and Coady consider the specific context as ‘‘the other words and sentences that surround that word... it follows that other words in the context of the unfamiliar word often ‘throw light on’ its meaning. These other words can be found in the sentence containing the unknown word or other sentences beyond the sentence of the unknown item. Similarly, McCarthy (1988) sees context as within the text itself i.e. the morphological, syntactic, and discourse information, which can be classified and described in terms of general features. Learning from context not only includes learning from extensive reading, but also learning from taking part in a conversation, and learning from listening to stories, films, television or the radio (Nation, 2001). In order to activate guessing in a written or spoken text, there should be four elements available: the reader, the text, unknown words, and clues in the text including some knowledge about guessing. The absence of one of these elements may affect the learner’s ability to guess. Furthermore, this technique encourages learners to take risks and guess the meanings of words they do not know as much as possible. This will help them build up their self-confidence so that they can work out the meanings of words when they are on their own. There are many clues learners can use to establish meanings for themselves, such as illustrations, similarity of spelling or sound in the mother tongue, and general knowledge (Walters, 2004).

#### **h. Eliciting**

This technique is more motivating and memorable by simply giving pupils a list of words to learn.

#### **i. Translation**

Even though translation does not create a need or motivation of the learners to think about word meaning (Cameron, 2001), in some situations translation could be effective for

teachers, such as when dealing with incidental vocabulary (Thornbury, 2002), checking students' comprehension, and pointing out similarities or differences between first and second language, when these are likely to cause errors (Takač, 2008). There are always some words that need to be translated and this technique can save a lot of time.

#### **1.4 Vocabulary Learning Strategies**

Beside the above techniques, there are also, vocabulary learning strategies that teachers can take into account. They can train their students to use these strategies. Schmitt and McCarthy (1997) propose strategies to learn vocabulary as follows: (1) guessing from context, (2) using word parts and mnemonic techniques to remember words, and (3) using vocabulary cards to remember foreign language-first language word pairs. It is supported by Murcia (2001) who also proposes three strategies to learn vocabularies. The first strategy is guessing meaning from context; she says that a context is rich enough to give adequate clues to guess the word's meaning. The second strategy is mnemonic devices: she proposes keyword technique. When seeing or hearing the target word, the learner is reminded of the keyword. The third strategy is vocabulary notebooks; she suggests a memory aid in independent learning by setting up vocabulary notebooks. Based on the techniques used for presenting new vocabulary and vocabulary learning strategies, the experts suggest lots more techniques that are claimed to be helpful for students to learn vocabulary in an easier way. What the researcher sees as better way to teach vocabulary is by learning in rich contexts. According to Stahl (2005) in <http://www.readingrockets.org>, students probably have to see a word more than once to place it firmly in their long-term memories. This does not mean more repetition or drilling of the word, but seeing the word in different and multiple contexts. Finally, teachers may encourage students to keep a vocabulary notebook because a great deal of vocabulary growth ultimately depends on the learner. They may have students who are successful vocabulary language learners share

their notebook methods. For students who need help, they can demonstrate how to set up a vocabulary notebook that is neat and organized in a manner that will facilitate multiple retrievals of the words. If the notebook is not set up well, then learners are less likely to practice the words, which defeats the purpose of keeping the notebook in the first place. Moreover, in presenting one planned vocabulary item, the teacher usually combines more than one technique, instead of employing one single technique. Teachers are suggested to employ planned vocabulary presentations as various as possible (Pinter, 2006).

### **1.5. Incidental and Intentional Vocabulary Learning**

As Hulstijn (2003) points out, learning a second language can either mean months and years of “intentional” study; by deliberately committing to memory thousands of words along with grammatical words, or it can mean “incidental” learning; by picking up structures and lexicon of a language, through getting engaged in a variety of communicative activities, such as reading and listening, while the learner's attention is focused not on the form but on the meaning. Incidental and intentional learning mainly appear in the area of vocabulary. This is because incidental learning can be applied to both abstract and factual declarative knowledge, while intentional is only applicable to factual knowledge (Hulstijn, 2003). Hunt and Beglar (1998) point out that many vocabularies are learned incidentally through extensive reading and listening. Accordingly, motivating learners to read and listen extensively can provide them with great opportunities to learn new vocabularies. In terms of Huckin and Coady (1999), too, except for the first few thousand most common words, vocabulary learning predominantly occurs through extensive reading with the learner guessing the meaning of unknown words. This process is incidental learning of vocabulary for the acquisition of new words and is the by-product of the reading (i.e., not the main focus of the cognitive activity, reading). The incidental

vocabulary learning, as Hunt and Beglar (1998) point out, can be a useful approach for all language learners at all levels.

Shmidt (1990; cited in Nyiazadeh, 2009), also points out that incidental learning is definitely passive in that it can happen when the focus of attention is on some relevant features of input. However, he believes that since incidental learning is useful in task-based language, pedagogy is still a fruitful area of investigation. He further notes that there is an argument that maintains what is learned—whether incidentally or intentionally—is what is noticed (Ericsson & Simon, 1985; cited in Shmidt, 1996). So far, many studies have been carried out in the field concerning vocabulary learning/teaching approaches. For instance, Huckin and Coady (1999) investigated the role of incidental and intentional vocabulary acquisition. They conclude that incidental vocabulary learning is not entirely incidental in that learners pay at least some attention to individual words. The other studies are reviewed below. Huckin and Coady (1999) mention the following advantages of incidental vocabulary learning:

- a. It is contextualized, giving the learner a rich sense of word use and meaning.
- b. It is pedagogically efficient in that it yields two activities at the same time: vocabulary acquisition and reading.
- c. It is more learner-based, it is the learner who selects the reading materials.

Paribakht and Wesche (1999) also conducted research investigating the relationship between reading and incidental L2 vocabulary acquisition. Their study demonstrated incidental acquisition of new lexical knowledge through reading of thematically related texts; hence, vocabulary knowledge may be acquired as a by-product of reading comprehension. In addition, their study showed that among learners' strategies, inferencing, was the main vocabulary strategy use employed. Among the other factors, frequency of exposure to new vocabularies is another determining factor in learning vocabulary. Rott (1999) studied the effect of frequency

with which words occur in a reading text and the role of reading as an input resource in vocabulary acquisition. Her study examined whether intermediate learners incidentally acquire and retain unknown vocabulary by reading a text. The result of the study indicated that, regarding retention measures on productive vocabulary knowledge, only half of the subjects displayed a significant rate of retention, and on receptive knowledge, all but one experimental group retained vocabularies over four weeks.

In spite of the fact that incidental and intentional learning might seem similar to implicit and explicit learning, respectively, these two dichotomies are not identical. As Paradis (1994a; cited in Hulstijn 2003) points out, since implicit competence is incidentally acquired, is stored implicitly and is used automatically, it means more than incidental learning. Therefore, while incidental vocabulary learning of vocabulary may be a useful way of acquiring vocabularies for most advanced learners, intentional/explicit instruction is essential for beginning learners whose reading ability is limited (Hunt and Beglar, 1998).

Ellis (1994b, cited in Gass 1999) also points out that incidental learning differs from implicit learning in that incidental learning is based on a behaviourist notion “with the meaning of a new word being acquired totally unconsciously as a result of abstraction from repeated exposures in a range of activated contexts” (p.219). Ellis (2008) defines explicit and implicit knowledge in this way:

Implicit knowledge is intuitive, procedural, systematically variable, automatic, and thus available for use in fluent unplanned language use. It is not verbalizable. ... Explicit knowledge is conscious, declarative, anomalous, and inconsistent (i.e., it takes a form of “fuzzy” rules inconsistently applied) and generally accessible through control processing in planned language use. It is verbalizable ... like any type of factual knowledge it is potentially learnable at any age.

On the other hand, explicit learning involves awareness at the time of learning, whereas intentional learning occurs by deliberately attempting to earn new information to memory.

Accordingly, with the L2 vocabulary learning, incidental and intentional learning are regarded as two distinct categories, because while intentional learning implies the use of deliberate storing and memorising techniques, incidental learning does not (Hulstijn, 2003). Therefore, while incidental vocabulary learning of vocabulary may be a useful way of acquiring vocabularies for most advanced learners, intentional/explicit instruction is important for beginning learners, since they have limited reading abilities (Hunt and Beglar, 1998).

### 1.6. Vocabulary and Lexis

It is a common thing that Vocabulary, words and lexis refers to one thing, but some researchers have given a distinction. Scrivener (2005, p. 227) distinguished the term vocabulary from the term lexis by referring to vocabulary as single words (e.g. green) and sometimes a combination of two or three words that are strongly linked (e.g. go off). What comes to lexis, he defined it as "internal database" of words that is already fixed and prepared as words' combinations that can be used quickly without going through the process of thinking, and phrases constructing. In other words, using our grammar knowledge is unneeded. Scrivener summarized the differences in the following figure:

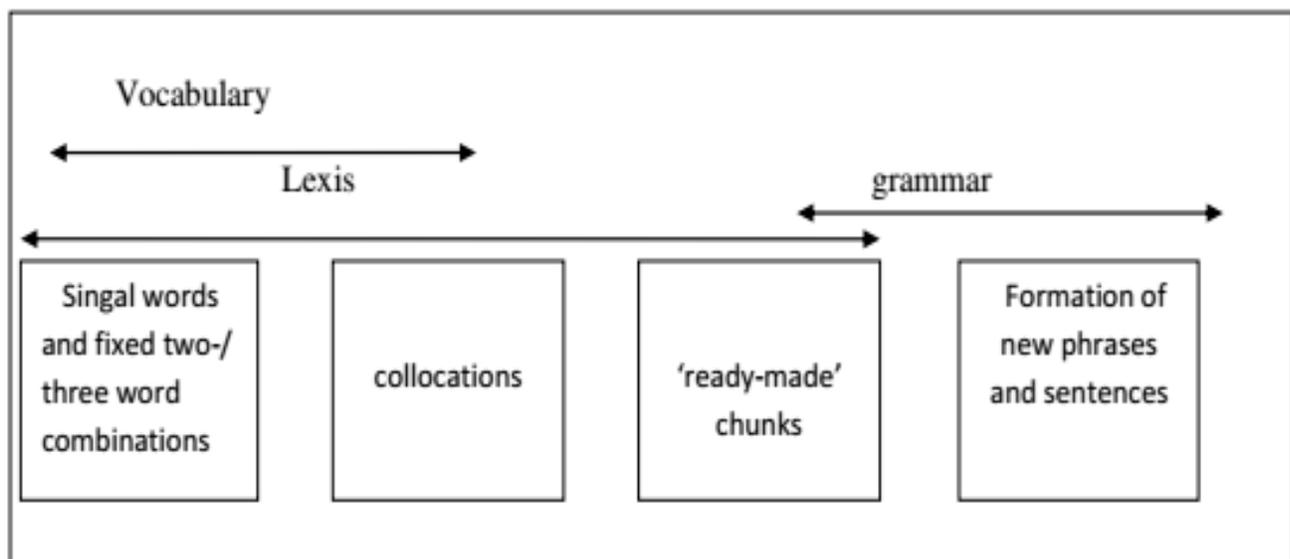


Figure 1: Vocabulary, lexis and grammar (Scrivener, 2005, p. 228)

### **Conclusion**

It is not enough, when teaching vocabulary, to provide learners with a number of words, but it is a difficult and a complicated process. Moreover, the teacher needs to change learners' perspectives on vocabulary learning and makes them aware of different strategies that can help them realize their goal which is being knowledgeable about language vocabulary. More precisely, the teacher has to look for techniques that may encourage them and create the desire to learn better. The teacher's responsibility appears in providing learners with clear hints about what they need in order to learn any word, and how they can enlarge their word knowledge. In addition, there should be a preparation and a given insight to other techniques concerning the vocabulary acquisition, mostly outside the classroom.

## **Chapter 2**

### **AN OVERVIEW ON VIDEO GAMES**

#### **Introduction**

The modern social and interactional landscape have been transformed by digital media, especially in the way of delivering the social functions, like communication and conversations, to digital field. One of these fields is video games, where people can inundate themselves and socially communicate with other real-life players, or with AI “artificial intelligence”. Video games became an activity that has developed into becoming a great part of children’s and adults’ daily free time. Some researchers have mostly focused their studying scope on the negative sides and aspects of video games, which include “increases in aggressive behaviour, aggressive affect, and cardiovascular arousal”. On the other hand, there are positive aspects of video games, assuming that video games have the potential to accelerate children’s cognitive skills and language acquisition. However, while some studies have mentioned the possibilities and chances of linguistic learning from video games, few researches have investigated if second language learners and foreign language learners could increase their vocabulary proficiency in English with the use of video games.

#### **2.1 Video Games Definitions**

Video games have been known as a form of entertainment for several decades now. Coming up with a fixed general definition to video games is not an easy because they come in many different forms and complexities, and it can be treated from multiple viewpoints. Concerning video games complexity, Calleja notes that considering games like Tetris and Grand Theft Auto to be equal media objects, yet likely suffer from making generalizations which “impede analytical rigor” (Calleja, 2011, p. 3). Tetris is a small and simple game, whereas games

in the Grand Theft Auto series are big multi-media constructions. In fact, several Grand Theft Auto games are characterized with smaller games “mini-games” in them, and each of these mini-games has comparable level of complexity to Tetris itself. Despite this, considering Grand Theft Auto to be a collection of mini-games is not quite accurate either, nor does the fact that it as it seems has more content than Tetris make it an objectively better game.

Regardless of the challenges associated with it, different attempts have been made to build an accurate definition for video games. As the present study is concerned with informal language learning through video game play, the study is concerned with the common ones, mainly entertainment-focused video games sold to consumers, rather than games with educational purpose. Several formal and pragmatic definitions for both traditional and digital games have been presented by Egenfeldt-Nielsen, Smith and Tosca (2008, p. 22-44). Many old and current video games are digital interpretations and simulation of real-life games, activities and sports. For instance, games that simulate sports such as football or tennis have been popular for several decades now. Therefore, attempting to define video games can be reached by considering some definitions for traditional, and real-life games.

The formal definitions presented by Egenfeldt-Nielsen, Smith and Tosca (2008) view both traditional and digital games as systems of rules, goals and quantifiable outcomes. As an example, a game of ice hockey has certain rules for play, the goal of scoring more points than the opponent and the quantifiable outcome of winning based on the number of points scored by the teams. In the domain of video games, almost any game suit this definition of rules, goals and outcomes. Another example, the video game *L.A. Noire* (Team Bondi, 2011), which is a detective adventure game. It has its own gameplay rules that determine what the player is able and unable to do within the game; for instance, the player can drive a

variety of vehicles such as police and civilian vehicles, and interact with in game characters (AI) and collect evidence from crime scenes, but they are unable to take a day off, and go on vacation or eat lunch. The goal of the game is to solve several police cases by using different detective skills, that are based around the rules of the game. After solving and completing each police case, the game gives the player a quantifiable outcome of a grade based on the player's success. On another side, going on vacation and eating lunch are allowed in some other video games and the player may be able to do them, while work or grading the player's progress is not part of the game's goals and outcomes. However, defining video games as sets of rules, goals and outcomes does not take the narratives and stories of many video games into consideration. It also downgrades the role and the importance of the player.

Concerning the pragmatic side, Egenfeldt-Nielsen et al. (2008, p. 37-40) give two recent definitions mainly focusing on video games. First, they introduce a definition by the recognized game designer Sid Meier: "A game is a series of interesting choices" (EgenfeldtNielsen et al., 2008, p. 37). Unlike the previous mentioned definition of a set of rules, goals and outcomes, Meier's definition asserts the agency and control the player have in video games. This agency and control the player has is what diverge video games from other forms of media entertainment, on which their users have less or none of agency or control. Video games give their players the power to control the game's outcome to a varying degree. Based on the game, the player may be offered multiple choices or options to engage the challenges offered by the game or they may be given the ability to choose between multiple different storylines, each with their own narratives and endings, such as in games like *Fallout 4* (Bethesda Game Studios, 2015). In addition to the power given to the players over the storyline of the game, video games also allow for more short control over the outcome and events of the game. For example, the player ability

of choosing the order in which they tackle some of the game's challenges, or which tools they use. Altogether, these far-reaching and small choices create a collection of interesting choices the player can make, that also can be over multiple separate play through of the same game.

Considering Sid Meier's choice-focused definition, Egenfeldt-Nielsen et al. (2008, p. 38) present the game design oriented MDA model for defining video games which was originally created by Robin Hunicke, Marc LeBlanc and Robert Zubeck. The MDA model divides games into sets of mechanics, dynamics and aesthetics. The mechanics of a game compose the internal rules and computer code of game (Egenfeldt-Nielsen et al., 2013). The dynamics of a game are linked to the way of practicing the game plays (Egenfeldt-Nielsen et al., 2013). It can be said that the mechanics of a game lead into the dynamics of the game. In other words, changing the rules, changes the way a game is played. Finally, aesthetics of a game are the abundance of positive emotional responses a game causes its player to feel (Egenfeldt-Nielsen et al., 2013). There are multiple aesthetics presented in the MDA model, such as the feelings of fantasy, discovery and fellowship, and it is important to note that not all games feature all the aesthetics of the MDA model (Egenfeldt-Nielsen et al., 2013). The same thing as the earlier definition of games as a set of rules, goals and outcomes, the MDA model lacks some common aspects of video games. As the model is created for video game design purposes, these deficiencies in an analytical context are understandable.

Calleja follows the philosopher Ludwig Wittgenstein's ideas and views on defining games. Instead of strict definition, Wittgenstein views games as "members of an extended family that share resemblances" (Calleja, 2011, p. 8). Based on this definition of games, Calleja sees video games as a set whose components are contained within another set, or several subsets of the broader game family. As the only rigorous requirement to be a video game, a game must

occur within a virtual space, such as a computer or a games console. The family resemblances which video games share are the player, representational signs, coded rules of game, a game's simulated environment, and a game's material medium (Calleja, 2011, p. 11-15). When focusing on the player, Calleja notes that within the context of video games, the term player refers to the human agents who interact with a game and its systems. This interaction does not necessarily hold a sense of play or playfulness. The representational sign in Calleja's set of family resemblances stands for text, image or sound based elements which symbolize entities in a game and which the player reads to interact and make sense of a game.

Strictly coded rules set video games apart from real-life games. In real-life analogue games, each game has its own sets of rules but they may be modified by the players, as the execution of the rules ultimately falls on the players or other people, such as referees themselves. A group of friends may break or modify some commonly accepted rules of football in order to make a better game that suits their own social group. Within the context of video games, modifying the rules is often more difficult as the rules are coded into the game's computer code and system. Calleja (2011, p. 13) notes, that in some cases, especially within multiplayer games, a video game may feature both coded rules as well as rules discussed by the players. Due to the restriction nature of coded rules, these discussed rules are often extra limitations, such as allowing gameplay tactics, set up by the players.

A game's environmental assets and properties are the rules that govern the game's world, as defined by Calleja (2011, p. 13). He notes that these properties are found in all games which simulate environments with physical properties in some way. According to each game, these coded properties may be more or less accurate to the real world. In one game the player's in-game character may only be able to run for a specific period of time before getting exhausted

(like in real life), while in another the player's character can run infinitely. The first case is arguably a more realistic simulation of the real world. Some games feature less complex simulations of real environments due to technical limitations, while others may intentionally limit the accuracy of their simulation out of different reasons that can be artistic or entertainment-focused choices.

Finally, Calleja (2011, p. 14) notes the significance of a game's device medium. The general game playing experience depends on the platform it is played on. Even if it is the exact same game, the experience provided from a games console is not the same from a PC. The most evident and clear factor that participates to the differences in a video game's device medium is arguably the way used for controlling the game. The controller on games console and the computer's combination of a mouse and a keyboard give two completely different gaming experiences.

Protracting from this definition of video games by Calleja (2011), within the context of the present study video games are considered to be digital representations of games, that have reflection to one another, but they are not one similar mass to media products. Furthermore, video games may share some sides and parts of other media forms. However, some features of video games, like the presence of the player, put video games aside from the other forms of media.

## **2.2 Video Games Genres**

Just like other forms of media and entertainment, such as literature or movies, video games can also be classified into sub-categories based on the genres they belong to. However, unlike many other media genres, video game genres sometimes are based on the gameplay

mechanics, style and characteristics of the game instead of the narrative themes of the game. Egenfeldt-Nielsen et al. (2013) discussed that video game genres, especially the ones with less formality, has wide variation in their specificity, for example from the more general action genre to the more specific baseball games genre. Some examples of common, mostly played and accepted video game genres are first-person shooter (FPS), platformer, puzzle and roleplaying games, which all categorize games based on their gameplay instead of the games' narrative.

Often video games join and mix aspects of couple different genres similarly to traditional media, for instance in the genre combinations of sci-fi horror or historical irony. For example, the video game Portal (Valve Corporation, 2007) combines elements from puzzle, platformer and FPS games. In the game, the player has to solve a number of puzzles involving light platforming challenges through first-person shooter gameplay. Another game that mixes different genres called Dead Space 2 (Electronic Art 2011) it is a horror, action, and science fiction game that the player experience it from a Third Person Shooter (TSP). While these gameplay-oriented genres are used to classify nearly all video games, traditional narrative-based genres are also sometimes used by their side. Especially in the case of narrative-heavy games, where the narrative is an important aspect of the game along its mechanics. For example, one may describe a game as a sci-fi shooter or a fantasy role-playing game, among many other such combinations.

### **2.3 Video Games and Learning**

Research and studies into video games and what they have to offer to learning is a fast growing field. Playing video games has been identified as a motivating practice or a hobby, that can be beneficial for the development of many skills, such as communicative or metacognitive skills, planning or organization (Reinders & Wattana, 2012, p. 156). However, there is still room

for more research in the field, including on the usefulness of video games for language learning through the entertainment of video game play. Studies concerned with video games in learning have largely focused on how video games could be applied to teaching within the school territory through computer-assisted learning. As an alternative, previous studies have looked into how video games teach their players to improve at and learn the games themselves, such as in the study on adolescent people's cognitive self-efficacy during video game play by Theodora Moline (2010). Moline found that the commercial games chosen to be played by the participating young people enhanced and reinforced their cognitive self-efficacy, in other words, their belief and confident in their ability to learn and succeed in the challenges of the games they played was present.

The conclusions by Moline support previous theories by James Gee (2003; 2013) and the idea that good video games support and feature good learning principles. Gee (2013) identifies sixteen different learning principles of good video games. He relates these principles to good games specifically, as badly designed games, which do not associate nor embody these principles, are likely to be unknown and neglected by the consumers of video games. A bad game would mostly be addressed as very easy, very difficult, boring or otherwise undesirable and would be quickly discarded by its potential audience. As an example of his learning principles, Gee (2013) proposes that good and decent games provide their players with many things in a variety of ways, like by giving their player the ability to customize their playing experience in different ways. A known method of customizing a video game's playing experience is changing the difficulty of the game. According to Gee (2013), games also feature many good principles of problem-solving, which support the player's learning during progression within the game. As an example, good games face their players with challenging,

yet manageable missions and issues that build upon their knowledge from the past challenges. Finally, Gee (2013) clarifies that games support and help their player's understanding of the game through processing system and situated meanings. The player's actions rarely are entirely isolated in the game. Instead, these actions effect the current and the future actions and conditions of the player and the game. The game also connects the language it uses to specific meanings, such as actions or pictures.

Reinhardt and Sykes (2012, p. 32-45) differentiate between two commonly used terms when discussing video games and language learning; game-based and game-enhanced language learning. For both Reinhardt and Sykes, game-based learning is about learning which is based on the use of games; the ones made for educational purposes (Reinhardt & Sykes, 2012, p. 39). On the other hand, game-enhanced learning is used during discussing learning that occurs while playing typical, and common video games (Reinhardt & Sykes, 2012, p. 36). In game-enhanced second language and foreign language learning, the players of a game encounter informal learning, while the act of playing the game being their main focus. Language learning in game-enhanced learning happens incidentally, without any intention or being motivated to learn. Therefore, the present study belongs in the field of game-enhanced learning. The main focus of the present is on EFL learners' informal learning experiences through their recreational video game play, which focuses around the play of common games. Research into game-enhanced learning remains somewhat rare and unusual. Studies on video games and learning, that already exist, have widely focused on the potential of video games in situations of formal and informal learning such as in the case study by Mark Peterson (2013) that was based on the concept of computer-assisted language learning, or CALL. According to Reinhardt and Sykes' (2012) terminology, CALL falls near the scope of game-based learning,

rather than game-enhanced learning. Peterson's study looked into a commercial massively multiplayer online role-playing game (MMORPG) and discovered that its players engaged in some real beneficial foreign language interaction through normal gameplay. Regardless of being positioned more in game-based language learning, Peterson's findings can give shrewdness into informal, game-enhanced learning. The performance of playing the video game in the study by Peterson was requested and set up for means of the study, yet consequently, the setup cannot be considered informal in nature. Despite the setup, the interactions within the game were still informal in nature, especially as the interactions mostly took place between players participating in the study and non-participating players. Taking such cases into Consideration, similar results to those by Peterson could be made based on situations of recreational video game play. None the less, more attention should be given to the prospect of video games and their effects on informal learning. In addition, games other than MMORPGs, which are highly social by nature, should be taken into consideration in current and future studies.

Another study that was concerned with foreign language learners' communication skills and their development through video game play has been carried by Reinders and Wattana (2012). The study analysed and observed the participants' desire to participate in EFL communication over several gameplay sessions. It was found that a video game setting was seemed to be an attractive environment for communication, with communication in EFL increasing as the gameplay sessions progressed (Reinders & Wattana, 2012, p. 183). However, Reinders and Wattana also note that the game did not enhance the willingness to participate in, or the quality of communication of students with weaker communication skills. They report that for weaker learners focusing on the game while communicating in a foreign language was difficult, that caused rare, delayed and simple turns of communication (Reinders & Wattana,

2012, p. 183). The impact of playing video games has on foreign language learning and language skills in more general terms has been studied by some scholars in recent years. Sundqvist (2009) found that Swedish ninth grade students, especially boys, with more time spent on extramural English activities had comparatively and notable better oral proficiency and vocabulary skills in English than their classmates. Moreover, the amount of video game play was found to be mutually related with reduced anxiety over speaking in English (Sundqvist, 2009, p. 200). While not limited to video games in scope, the study shows that contact with English through recreational activities leads to improved language skills through methods of informal learning. Finally, Sundqvist argues that extramural English activities that require more active participation from the learner, like video games, Internet use and reading, has more benefits to L2 acquisition than activities that are more passive by nature (Sundqvist, 2009, p. 204). Uuskoski (2011) found similar results in his graduation thesis; those high secondary school students who, on average, spent most of their time playing video games also had on average higher English language grades. On the bachelor's thesis (Väisänen, 2014), which is complementary to the thesis of Uuskoski, the findings were also positive when video game play and English language competence of Finnish middle school students were compared. On average, the students with more time spent on playing video games had higher grades than their less-playing classmates.

An argument aroused between Piirainen-Marsh and Tainio (2009) about lexical and prosodic repetition of a video game and that it can help develop an EFL learner's linguistic and interactional competence. Texts in video games, such as voiced dialogue and written messages often have a repetition of some key words of a game's story, which can lead to vocabulary learning through repetition, while interacting with other players during gameplay helps the

development of communicational skills. The game that was played as part Piirainen-Marsh and Tainio's study, Final Fantasy X, is not an MMORPG game. Instead, Final Fantasy X is a traditional, offline single-player RPG, yet it still enhances oral language use and social play through co-play and social interaction with team mates or opponents. Therefore, not only MMORPG-style games can benefit language learning.

Chik (2012) gave a further proof of this in his study. Chik showed that video game players identified three aspects of video game-related activities with potential for foreign language learning. First, there is the consumption of in-game texts, such as a game character's dialogue. Second, interaction with other players in-game provides reasons and opportunities for authentic English language use. Third, participating in game-related discussions, as well as reading game-related online materials was identified as an important aspect of learning through video game-related activities. Chik's study is one of the few studies that investigated learner perspectives on game-enhanced and game-based learning. Finally, two out of three of the identified gaming-related activities can be found within single-player games, as well as multiplayer games. mostly all video games have some sort of language-based texts, as well as online communities and fan groups.

Schmitt confirm and emphasize that second language learners acquire vocabulary at the beginning through discovering word's meaning (discovery strategies) and then by recalling and remembering the word (consolidation strategies) when its meaning has been already discovered. Achieving the meaning can happen independently (determination strategies) by guessing form contextual clues or socially (social strategies) by asking teachers or classmates for help. In addition, Schmitt highlights the importance and the necessity of communicating with native speakers (social strategies), contextual usage of words and imagery (memory strategies), verbal

or written repetitions and note taking (cognitive strategies), and media (metacognitive strategies) for better vocabulary remembering. Thus, social strategies refer to the cooperation with others, memory strategies link new words with previously learned words, metacognitive control the learning process, and cognitive strategies are used for language manipulation and transformation.

According to Gee, video games provide authentic and safe environment where learners develop knowledge and skills by solving “well-ordered problems”. These problems are built gradually; on the principle “from easy to difficult” in such a way that the mastery of easy concepts leads to the understanding of more complex notions later. Finally, video games create further understanding of lexicon by relating game actions, images, and goals to learner’s personal experience. In addition, video games such as MMORPGs with real time investing strategy offer chances to practice second language skills through social interactions with native speakers in game communities, also with non-player characters (AI) in simulation and adventure games.

## **2.4 Motivation and Video Games**

Previous research recognises video games and game-like settings as motivating and engaging, despite a relative lack of formal research on game-driven motivations (Ryan, Rigby, & Przybylski, 2006, p. 2). An early example of game motivation can be found in Bartle (1996). Bartle identified four different types of players of MUDs (multi-user dungeon), a kind of predecessor of MMORPGs. The four types Bartle identified were Achievers, Explorers, Socialisers and Killers. They are defined based on the player’s interests, or motivations, for playing the game. Bartle compares these player types on two axes based on the action and object. On the action Bartle deducts acting on versus interacting with and on the object axis he sets the

game world versus other players. Based on these axes, Achievers wish to act on the virtual world, while Explorers wish to interact with the world, and Killers wish to take action on other players, while Socialisers wish to interact with other players. From Bartle's (1996) player types, it is possible to conclude that games have many ways to motivate and engage different kinds of players.

Self-determination theory (SDT) addresses different factors which affect an individual's motivation in both ways; positively or negatively (Ryan & Deci, 2000, p. 55). A basic distinction in these factors is between intrinsic motivation and extrinsic motivation. Intrinsic motivation refers to inherently or innately motivating or interesting factors within an action, such as reading or playing video games, while extrinsic motivation reflect external reasons for a task or action performance. An example of extrinsic motivation would be a reward for doing a certain task, or a punishment for not doing a task. Ryan and Deci discussed that in extrinsic motivation has traditionally been considered a less desirable, even though effective, form of motivation (Ryan & Deci, 2000, p. 55). Instead, they argue the possibility of different kinds of extrinsic motivations, extending from external regulations to the individual's combination of the external regulations and values that motivate them to act (Ryan & Deci, 2000, p. 60-65). On the end of external regulations for extrinsic motivation would be an apathetic student, who is urged to study a subject by their teacher because the subject will come with benefits to the student in the future. The student may reluctantly accept this motivation and perform given tasks in class. On the end of integrated extrinsic motivation would be an enthusiastic student, who studies and performs tasks due to the student acknowledging and valuing the future benefits studying can provide them. Regardless of these combined extrinsic motivations being quite internally driven,

it is necessary to note that they are not intrinsic motivations, and extrinsic motivations cannot become intrinsic motivations through integration (Ryan & Deci, 2000, p. 62).

Extrinsic motivations do not apply to the act of video game play as much as intrinsic motivations do. The act of playing a video game is motivating and desired by nature, which means that based on Ryan and Deci's definition, video games are intrinsically motivating. Ryan, Rigby and Przybylski (Ryan et al., 2006, p. 3) note that players sometimes pay to be able to play games, and gaming as a hobby may even be subject to disapproval by others. Ryan et al. (2006, p. 3-4) compare a sub-theory of SDT, cognitive evaluation theory (CET), with intrinsic motivations for video game play. According to CET, events and conditions that support an individual's feeling of autonomy and competence also increase their intrinsic motivation. Autonomy within SDT is related to the degree of free will that the individual has when performing an activity. Doing something out of interest or personal value increases the degree of autonomy; therefore, the degree of intrinsic motivation (Ryan et al., 2006, p. 3). Ryan et al. propose that participation in games is nearly always voluntary and, player autonomy during gameplay activities is also high. Similar to the different reasons for play in the player types identified by Bartle (1996), Ryan et al. also acknowledge that different people's desires to play a specific game also differs between players (Ryan et al., 2006, p. 3). The other factor for intrinsic motivation discussed within CET is competence. According to CET, factors that develop an individual's experience of competence enhance intrinsic motivation. There is a variation of factors that may affect the experience of competence, such as chances to learn something new, a fitting level of challenge and positive feedback (Ryan et al., 2006, p. 3). Both autonomy and competence connect back to several of Gee's (2013) principles of good learning, such as customization.

There is a possibility, that as an intrinsically motivating experience, video games can in fact play the role of extrinsic motivation for some other actions, such as language learning. Several video games, such as MMORPGs are highly social by nature (Sundqvist & Sylvén, 2012), and thus require a specific level of language competence so that the player can win and be victorious at the game. This is also true for many single-player games with an emphasis on the game's story; to understand and finish most of a game's story, the player must be able to understand the language used to deliver it. As such, video games can provide a reason for formal study and learning of English for an EFL learner, in addition to consolidating informal, and incidental learning. However, Whitton (2010, p. 38-41) found that for adult learners who were also motivated to play video games, learning by playing video games was seemed to be a less motivating or even demotivating experience. The study done by Whitton's was based on the idea of game-based learning, i.e. games designed for learning, and not on game-enhanced or incidental learning through recreational video game play. Nevertheless, the results do indicate that some video game players may feel unwilling to engage in game-based learning, despite enjoying games as a recreational activity.

The notion of recreational video games may extrinsically motivate EFL learners to study through contexts other than game-enhanced learning has seen relatively little research. Back to the classifications of extrinsic motivations by Ryan and Deci (2000, p. 60-65), it is possible to come up with a theory of how video games could provide extrinsic motivation for EFL learning. SDT divides extrinsic motivations into four different forms; externally regulated, introjected, identified and integrated extrinsic motivations (Ryan & Deci, 2000, p. 61). Based on Ryan and Deci research, external regulation is often distinguished as the most insignificant form of extrinsic motivations as it relies on external demands or followed with imposed rewards.

An external reward may in fact be the avoidance of some form of punishment. After external regulation, there is introjected regulation. Introjection refers to a regulation that is internal in some point, but which is still controlling as an individual performs introjected tasks to avoid guilt or anxiety, or to gain a sense of vanity or pride (Ryan & Deci, 2000, p. 62). Identification and integration, finally, are both autonomous forms of extrinsic motivation. In identified forms of extrinsic motivations, an individual identifies with the importance of a task or behaviour and therefore accepts its value as naturally (Ryan & Deci, 2000, p. 62). A student who sees a certain subject to be important for their future puts effort into studying because it has been identified with the value of the subject. Integration, which SDT consider as an even more autonomous form of extrinsic motivation than identification, occurs when the value of certain task or behaviour is fully inserted into an individual's self-image (Ryan & Deci, 2000, p. 62).

The ability to play video games can be considered an identified or integrated form of extrinsic motivation for EFL learning, as it is a goal for EFL learning which a video game enthusiast is likely to value and accept. However, external rewards for a task are more often seen as external regulations by SDT (Ryan & Deci, 2000, p. 61), which suggests that video game play as reward for EFL learning is not an autonomous motivation. On the other hand, the intrinsically motivating nature of video games supports the concept that video game players would value being able to play video games as a positive end goal of language learning, same as how a student may estimate a certain subject for its future benefits and career possibilities.

## **2.5 Online Video Games and the Gaming Communities**

Stepping out from language learning through video game play to another field for learning based around video games as a hobby. Popular video games precisely have huge, social,

out game sides and communities to them. This also exist for games that are originally or even completely single-player only, as has been suggested by previous research (e.g. Piirainen-Marsh & Tainio, 2009). Similar to consumers of other forms of media, the consumers of video games will sometimes take part in discussion related to games they enjoy and have experience of. Some enthusiasts will also take part in gaming-related events and conventions as well as produce and share their own fan content, among many other activities that are related to video games, but not connected to the act of playing directly. Socializing around games in this way, people take part in a wide variety of gaming communities. Previous studies, such as the one by Chik (2012) have identified online gaming communities as an avenue for language learning and use.

These video games communities can be seen as a kind of community of practice, which as a term was initiated by Lave and Wenger (Lave & Wenger, 1991), (Wenger, 1999). Similar to a community of practice, the members of gaming communities gather within the community, that exist around their shared interests. Within a gaming community, its members share knowledge related to the game and learn from each other. In his book, Gee (2013) gave another term to use for gaming and online communities that he considers it more suitable than community; affinity space. According to him, the term community of practice has a number of issues that the term affinity space avoids. Gee takes the case primarily with the memberships and fellowship of communities and groups. Online communities in reality are mainly very open and do not foster a strong sense of community in the traditional meaning.

Gee (2013) explains that the concept of affinity space also emphasizes the organization of the space as being essential. Actually, organization of the space is important as much the organization of the members or people of the space is (Gee, 2013). This is unlike the concepts of community or group that according to Gee (2013) overly stress the importance of the

people. In affinity spaces, the virtual or digital space and the way it interacts with the people within it is also important for the space (Gee, 2013). Affinity spaces have a number of characteristics that define them. For example, the people within an affinity space are related to each other through their shared interests, attempts, goals or practices and they are not separated by age or proficiency (Gee, 2013). In affinity spaces young and old people, as well as beginners and professionals come together in one shared space. Within an affinity space, anyone can choose to create or give content and there are many ways for participation in the space (Gee, 2013).

Affinity spaces, or communities, based around video games can be found in both online and offline. Offline, video game players and fans come together in many different situations. In addition to conventions and other large events, people join gaming-related affinity spaces at schools, workplaces and many other environments. Today, people discuss video games much like sports, TV shows or books are as part of normal everyday conversation. Video game communities offer people another platform for discussing their favourite games. The easy accessibility of online communities allows individuals to interact with large numbers of people with similar interests. As example, Web-Sites online communities are also popular platforms for sharing fan content produced by enthusiasts. In other words, video game discussion online can be varied in many ways and places.

An example of online video game communities and the kinds of discussion and content they feature exist on the online social media site Reddit. A big video game community can be found at [reddit.com/r/leagueoflegends](https://www.reddit.com/r/leagueoflegends). League of Legends, also known as LoL, is a Multiplayer Online Battle Arena (MOBA) game that has an online community of 2.8 million subscribed members interested in the video game and its weekly updates. The front page of the LoL

community has a number of links on it. There are links to both other related fan communities as well as official LOL social media sites. Popular discussion topics at the time of writing feature in-game screenshots and videos, questions about the game and its mechanics and a link to an online article about the most recent updates. In addition to the article link, all of the discussions threads are based on the most recent changes and updates, which were released in a specific event during the year. The Reddit LoL community is a very active community. In addition to online gaming communities based on a specific game or franchise, there are numerous communities dedicated to video games in general or on a specific gaming platform or genre. Online gaming communities offer a great platform for people to come together to share their own specialized knowledge on video games and to learn from others.

### **Conclusion**

The emergence of Video games has provided people with a media that has a full pack of genres of any kind, and it brought all the aspects of language learning together (image, context, audio...). For a non-native speaker, online games are a great way to interact with both native and other non-native speakers of a language. In many cases on the Internet, the language of the communities is English, like in video games themselves. Thus, for English language learners, video games as hobby give opportunities for learning the language both through active recreational gameplay as well as through interaction with other video game enthusiasts. Therefore, it is better to test the validity of such material in an experimental and well organized environment.

## **Chapter 3**

### **FIELD WORK**

#### **Introduction**

We discussed in the previous chapter some benefits of video games in enhancing English language vocabulary, and we can conclude that they provide a suitable environment and situation for a better learning outcomes. However, in this chapter, we will analyse the test results for those theories and hypotheses, and see if Video games are good enough in enhancing FLL vocabulary. Consequently, there is a great concern given to this new media type and it is growing in parallel with the growth of its users and products. As a result, many researchers and language educators investigate how to bring the proof between games and language enhancement; in other words, can FLL benefit from video games in developing their vocabulary inventory?

#### **3.1 Research methodology**

The research I am conducting in my work is the Correlational research since an experiment was needed to prove the hypothesis whether they are negative or positive. Another reason, I will be measuring characteristic from the same group then calculate the correlation between those characteristic which will help this investigation and see to what extent the differences in one variable are related to the differences in another variable. Researchers using such type of research help them to establish the direction and strength of a relationship between variables and allowing further research in the future.

#### **3.2 Research approach**

The used approach in this work is the Mixed methods approach because the field of work involves collecting both qualitative and quantitative data, integrating two forms of data, and

using a distinct design that contain theoretical framework. This approach provides a more complete understanding of the research problem better than either approach alone.

### **3.3 Research design**

Since there will be a systematic observation on the effects of the treatment on a specific population through the use of a representative sample, a quasi-experimental design is the most fitting design. The groups are not assigned randomly, and one will receive the treatment while the other will serve as a control group for comparison. After collecting the data and analyse them, the statistics will be used to ensure that the obtained results from the sample are statistically significant to generalize the findings to a larger population.

### **3.4 Population and sampling**

We choose the population of the First grade in Imam Ali middle school in Touggourt. We will deal with a class of twenty-seven (27) pupils divided into two groups, treatment group and control group. The reason behind choosing the first year pupils is because they are beginners at English language, and they do not have a wide knowledge about its vocabulary, even common and simple vocabulary such as take, talk, open, sword....

### **3.5 Data collecting tools**

Each research method imposes certain tools for data collecting. The tools that support this work are pre-test, treatment, post-test, and observation recorded by writing notes. During the treatment, the pupils will play video games on pc.

### **3.6 Data collecting procedures**

The pupils (both groups) answer the pre-test in a one-hour session without the teacher's help, except in clarifying the instructions of each task of the test. The test is built in a way to fit the pupils' level, and the vocabulary choice is made for the same reason. Some vocabulary that exist in the video games is used in the pre-test knowing that the pupils have no clue about it according to their teacher.

The treatment is given four sessions, each session in one hour. A group will serve as a controlling group, and they will study as usual with their teacher, while the other group is considered with the treatment. To make sure the time will be enough, there will be two Computers and pass two students every time, and for the ability of a full observation on how the pupils interact with the video games. The suitable dichotomy for the classroom observation is the structured one, because it involves a specific focus which is the way of how pupils interact and guess the meaning of the words while playing.

In the post-test, same process in the pre-test, pupils have one hour to finish it, explanation about the tasks' instructions in the test except with adding more vocabulary from the video games.

### **3.7 Quantitative data analysis**

This certain type of data analysis provides measurable and understandable results. There are some specific steps the analysis process should follow which are; tabulation of data, data calculation or description with the convenient statistical program of data analysis.

The data undergone through preliminary analysis to identify statistical significant differences between the pre-test and the post-test results that would provide an answer to the

research question. By the end of the investigation, the correlation coefficient between the two variables will be counted.

### **3.7.1 The pre-test score analysis**

The pre-test is arranged to test the learners' vocabulary knowledge. It was designed to fit the pupils level from the length side and the difficulty side. The participants are referred to as (P) and the pupils are given numbers (1 to 14) for experimental group and (1 to 13) for the control group. Both groups took the pre-test and the scores are presented in the tables below:

<b>Learners</b>	<b>Marks X/15</b>
<b>P1</b>	<b>3pts</b>
<b>P2</b>	<b>3pts</b>
<b>P3</b>	<b>3.50pts</b>
<b>P4</b>	<b>4pts</b>
<b>P5</b>	<b>6pts</b>
<b>P6</b>	<b>6.50pts</b>
<b>P7</b>	<b>7pts</b>
<b>P8</b>	<b>7pts</b>
<b>P9</b>	<b>8.50pts</b>
<b>P10</b>	<b>9pts</b>
<b>P11</b>	<b>10pts</b>
<b>P12</b>	<b>11pts</b>
<b>P13</b>	<b>11pts</b>
<b>P14</b>	<b>12pts</b>
<b>N=14</b>	<b><math>\Sigma X=90.5</math></b>

**Table 3.1: EG Pre-test individual scores**

The table above present the scores of the pupils in the experimental group while the one below shows the results of the control group learners:

<b>Learners</b>	<b>Marks X/15</b>
<b>P1</b>	<b>3pts</b>
<b>P2</b>	<b>3pts</b>
<b>P3</b>	<b>3.50pts</b>
<b>P4</b>	<b>4.50pts</b>
<b>P5</b>	<b>5.50pts</b>
<b>P6</b>	<b>5.50pts</b>
<b>P7</b>	<b>6pts</b>
<b>P8</b>	<b>7.50pts</b>
<b>P9</b>	<b>7.50pts</b>
<b>P10</b>	<b>8pts</b>
<b>P11</b>	<b>8.50pts</b>
<b>P12</b>	<b>9.50pts</b>
<b>P13</b>	<b>10pts</b>
<b>N=13</b>	<b><math>\Sigma X=82</math></b>

**Table 3.2: CG Pre-test individual scores**

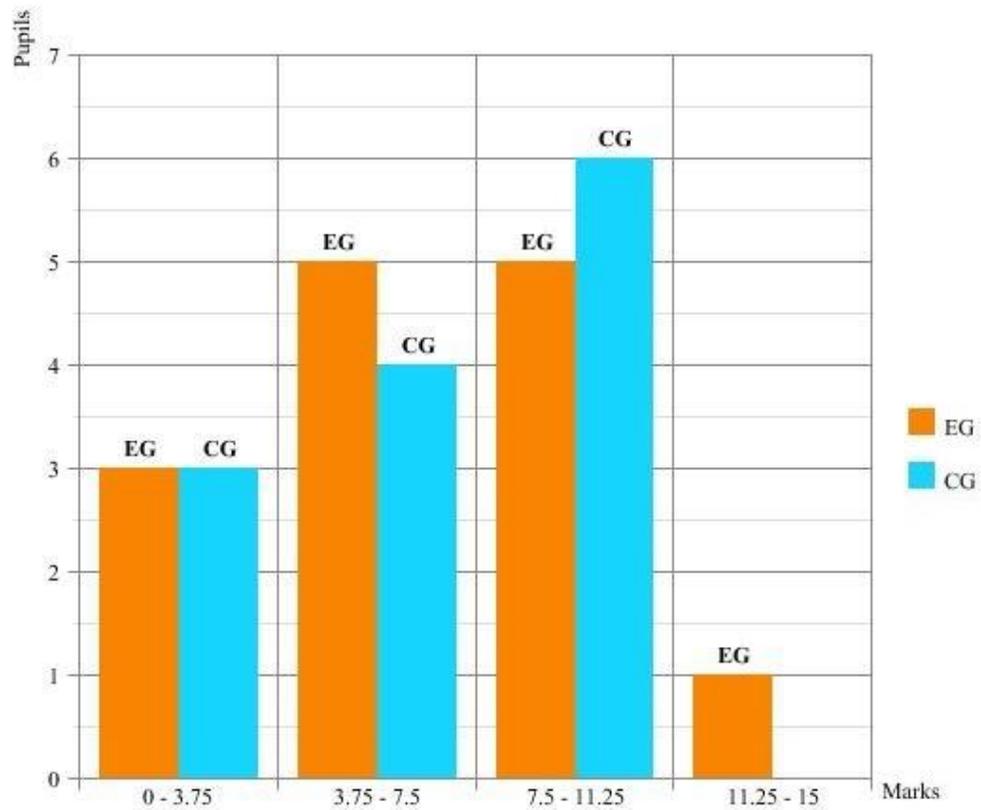
The following table summarize both groups results:

<b>Scores</b>	<b>Experimental group</b>	<b>Control group</b>
<b>0 — 3.75</b>	3 Pupils 21.42%	3 Pupils 23.07%
<b>3.75 — 7.5</b>	5 Pupils 35.71%	4 Pupils 30.76%
<b>7.5 — 11.25</b>	5 Pupils 35.71%	6 Pupil 46.15%
<b>11.25 — 15</b>	1Pupils 7.14%	0 Pupils 0%
<b>Total</b>	14 Pupils 100%	13 Pupils 100%

**Table 3.3: Summary of Pre-test Scores for EG and CG**

From the pre-test scores we note that the pupils from both groups performed differently. The majority of the pupils got less than 7.5 points out of 15 with the percentage of 57.13% in the experimental group and 53.83% in the control group; however only 42.85% got more than 7.5 points in the experimental group and 46.15% in the control group.

The scores are presented in the following bar graph:



**Bar Graph 3.1: EG and CG Pretest Scores**

### 3.7.2 The post-test scores analysis

The treatment was done after the pre-test in a period of month (February) divided into four sessions, a session per week. After it, the pupils engaged in the post-test both control and experimental groups that has the same purpose as pre-test; testing their vocabulary knowledge.

The results are shown in the following tables:

<b>Learners</b>	<b>Marks y/15</b>
<b>P1</b>	<b>3.25pts</b>
<b>P2</b>	<b>4.25pts</b>
<b>P3</b>	<b>5pts</b>
<b>P4</b>	<b>6pts</b>
<b>P5</b>	<b>6.50pts</b>
<b>P6</b>	<b>8pts</b>
<b>P7</b>	<b>8.75pts</b>
<b>P8</b>	<b>8.75pts</b>
<b>P9</b>	<b>9.25pts</b>
<b>P10</b>	<b>9.25pts</b>
<b>P11</b>	<b>9.50pts</b>
<b>P12</b>	<b>10.25pts</b>
<b>P13</b>	<b>10.50pts</b>
<b>P14</b>	<b>11.50pts</b>
<b>N=14</b>	<b><math>\Sigma y=110.75</math></b>

**Table 3.4: EG Post-test Individual Scores**

The table above show the scores of the experimental group in the post-test and, as we can see, there is a slight change comparing with pre-test scores for each individual in the group.

The next table is concerned with the control group individual scores:

<b>Learners</b>	<b>Marks <math>\Sigma y/15</math></b>
<b>P1</b>	<b>0pts</b>
<b>P2</b>	<b>0.75pts</b>
<b>P3</b>	<b>2pts</b>
<b>P4</b>	<b>3pts</b>
<b>P5</b>	<b>3.75pts</b>
<b>P6</b>	<b>4pts</b>
<b>P7</b>	<b>5.5pts</b>
<b>P8</b>	<b>6pts</b>
<b>P9</b>	<b>6.50pts</b>
<b>P10</b>	<b>6.75pts</b>
<b>P11</b>	<b>7.50pts</b>
<b>P12</b>	<b>8pts</b>
<b>P13</b>	<b>10pts</b>
<b>N=13</b>	<b><math>\Sigma y=64</math></b>

**Table 3.4: CG Post-test Individual Scores**

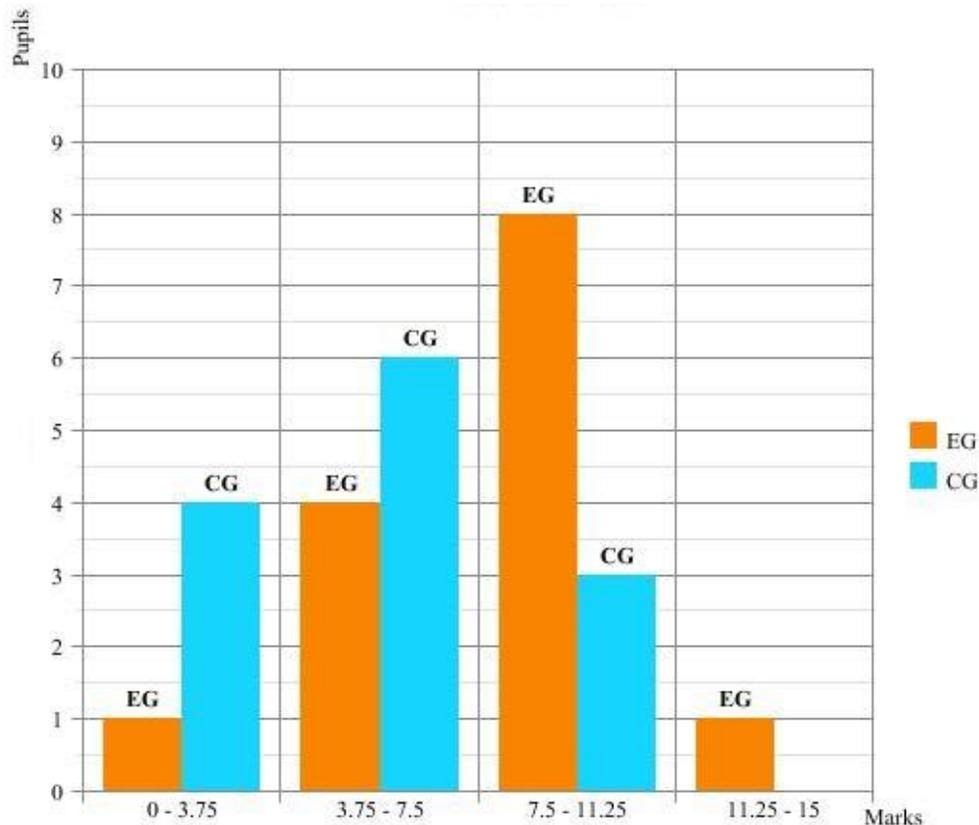
It is obvious that the control group individual post-test scores differ as well from those of the pre-test; however, we need to compare them to results of the experimental group. The following table summarizes the comparison:

<b>Scores</b>	<b>Experimental group</b>	<b>Control group</b>
<b>0 — 3.75</b>	1 Pupils 7.14%	4 Pupils 30.76%
<b>3.75 — 7.5</b>	4 Pupils 28.57%	6 Pupils 46.15%
<b>7.5 — 11.25</b>	8 Pupils 57.14%	3 Pupil 23.07%
<b>11.25 — 15</b>	1Pupils 7.14%	0 Pupils 0%
<b>Total</b>	14 Pupils 100%	13 Pupils 100%

**Table 3.5: Summary of Post-test Scores for EG and CG**

The scores taken from the post-test denote a remarkable progress in the performance of the experimental group pupils, compared to the pre-test, where 9 pupils got more than the average (7.5) representing 64.28%. On the other hand, the control group scores have decreased where 10 pupils reflecting 76.91% of the group got less than 7.5 out of 15 with 30.76% less than 3.75 points.

The coming bar graph summarize both groups post-test score in a better way:



**Bar Graph 3.2: EG and CG Post-test Scores**

### 3.7.3 The Correlation between the Variables:

The post-test contained more vocabulary from the video games, and needed the students' experience from the treatment. The test results went through examination to answer the main question of the research: is there a correlation between video games and vocabulary acquisition? Therefore, the investigator used Pearson's Moment-Product Correlation Coefficient to count the correlation coefficient between the two variables. In the current case, the null hypothesis indicates that there is no significant correlation between the two variables, while the alternative hypothesis means that a strong correlation exists between the two variables.

### 3.7.3.1 The Calculation of the Correlation Coefficient

The application of the following equation is needed for the calculation of the correlation coefficient (r):

$$r(xy) = \frac{\sum(x-\bar{x})(y_i-\bar{y})}{\sqrt{\sum(x-\bar{x})^2}\sqrt{\sum(y-\bar{y})^2}}$$

$\sum$ : is the sum.

X: is the pre-test score.

Y: is the post-test score.

### 3.7.3.2 The Correlation between Variables for the Experimental Group

The researcher has calculated the correlation coefficient between the variables for the experimental group that its members played the video games and encountered their vocabulary. The method of calculating the correlation coefficient between video games playing, as the independent variable, and the post-test scores as the dependent variable is illustrated in the table below. the pre-test is used as a covariate:

Mx: Mean of X Values

My: Mean of Y Values

X - Mx & Y - My: Deviation scores

(X - Mx)<sup>2</sup> & (Y - My)<sup>2</sup>: Deviation Squared

(X - Mx) (Y - My): Product of Deviation Scores

N	X	Y	x - M <sub>x</sub>	y - M <sub>y</sub>	(x - M <sub>x</sub> ) <sup>2</sup>	(Y - M <sub>y</sub> ) <sup>2</sup>	(X - M <sub>x</sub> )(Y - M <sub>y</sub> )
P1	3	3.25	-4.250	-4.661	18.062	21.722	19.808
P2	3	4.25	-4.250	-3.661	18.062	13.401	15.558
P3	3.50	5	-3.750	-2.911	14.062	8.472	10.915
P4	4	6	-3.250	-1.911	10.562	3.651	6.210
P5	6	6.50	-1.250	-1.411	1.562	1.990	1.763
P6	6.50	8	-0.750	0.089	0.562	0.008	-0.067
P7	7	8.75	-0.250	0.839	0.062	0.704	-0.210
P8	7	8.75	-0.250	0.839	0.062	0.704	-0.210
P9	8.50	9.25	1.250	1.339	1.562	1.794	1.674
P10	9	9.25	1.750	1.339	3.062	1.794	2.344
P11	10	9.50	2.750	1.589	7.562	2.526	4.371
P12	11	10.25	3.750	2.339	14.062	5.472	8.772
P13	11	10.50	3.750	2.589	14.062	6.704	9.710
P14	12	11.50	4.750	3.589	22.562	12.883	17.049
N=14	$\sum x$ = 90.5	$\sum y$ = 110.75	M <sub>x</sub> : 7.250	M <sub>y</sub> : 7.911	$\sum (X - M_x)^2$ = 125.875	$\sum (Y - M_y)^2$ = 81.826	$\sum (X - M_x)(Y - M_y) = 97.688$
$r(xy) = \frac{\sum(x-\bar{x})(y_i-\bar{y})}{\sqrt{\sum(x-\bar{x})^2}\sqrt{\sum(y-\bar{y})^2}}$ $r(xy) = \frac{97.688}{\sqrt{(125.875 \times 81.826)}} = \frac{97.688}{101.488}$					$r(xy) = 0.96$		

Table 3.6: Calculation of the Correlation Coefficient (r)

The main concern of inferential statistics has traditionally been the testing of 'statistical significance'. Statistical significance denotes whether a particular result in a sample is true for the whole population. If the result is non-significant, this means that we cannot be certain that it did not occur by chance. Pearson correlation coefficient ranges from  $r = (-1)$  to  $r = (+1)$  expressing a perfect positive relationship between the variables whenever  $+1 > r > 0$ ; and a perfect negative relationship whenever  $0 > r > -1$ . However, when  $r = (0)$  the null hypothesis exists where there is no correlation between the variables.

The correlation coefficient obtained is  $r = 0.96$  which expresses a strong correlation between the video games play and vocabulary acquisition. Therefore, the null hypothesis is rejected because  $r > 0$ .

### **3.8 Qualitative data analysis**

As mentioned before, classroom observation was used to collect qualitative data. Each student was asked while playing what these words meant: crouch, jump, hit, shoot, descend, ascend, aim, dodge, hit, enemy, talk, take, open, dash, sword, bow, and shield.

The majority of the pupils guessed the following words' meaning: crouch, jump, hit, shoot, ascend, talk, take, open, enemy, descend, aim, sword, bow and shield. They even gave the exact Arabic synonym words to them and they answered in a fast way without taking a moment to think.

Few pupils managed to express the meaning of these words "dodge and dash" and they explained them in long different expressions, not words, and they did take some time to guess their meanings.

Some of them had to try several times the action in the game to guess the meaning of the word “take” assuming it’s not clear what the game character is doing. Others couldn’t guess these two words’ meaning “sword and bow” until they checked their icons pictures in the character inventory. Most of the pupils found the word “shield” hard to guess its meaning, even the icon picture did not help, until they used the shield, and saw the character doing the guard action; my opinion in this point is that the shield looked like nothing but a piece of wood in the game and in the icon picture.

### **3.9 Discussion of the main results**

The structured classroom observation, the pre-test and the post-test scores were adopted to identify the possibility of the vocabulary acquisition from video games and if the acquired vocabulary is sufficient and suitable to be used in the English language studying field. Therefore, the following paragraphs summarize the results according to the hypotheses suggested at the beginning of the study.

The first hypothesis that suggest video games help pupils to encounter many and different vocabulary beside the understanding of their meaning is proved positive to a satisfactory extent according to the notes taken during the classroom observation through the treatment process. The investigator noticed a significant respond from the pupils while having them interacting with the video games.

As for the second hypothesis, the video games enhance pupils’ vocabulary through the gameplay is proven to be positive based on the classroom observation notes. During the gameplay, there is a tutorial that prepares the player for the main events and the whole stages of the game –the tutorials exist in all video games – and that what all the pupils went through, the

tutorial phase. As for the online interaction, there have been some obstacles that are mentioned in the limitations.

Concerning the third and last hypothesis that suggest the acquired vocabulary is used in the studies fields; in other words, the learned vocabulary can be used in class and enhancing the pupils test scores. The analysis of the pre-test and the post-test scores of the experimental group compared to those of the control group prove that there is a strong positive relationship between the variables, which means that the hypothesis is positive.

Finally, it is very important to mention a very crucial point that is the repetition of playing video games, even if they differ from one to another, is what make the pupils and the players familiar with the meaning of the vocabulary. As mentioned before, based on the hypothesis, video games are capable of enhancing the EFL students' vocabulary with a wide variation, and from different levels (formal or informal).

### **3.10 Limitations**

The scope of the study is limited to the data collected at the level of Imam Ali Middle School in Touggourt. Therefore, the generalization is not recommended. Moreover, the treatment was planned to be done in two months with 8 sessions; considering the online communication video game but for political reasons, and the protesting events that the whole country has witnessed, same reason for not being able to follow the Triangulation method. In addition to that, the lack of interest and focus to the post-test specially from the control group pupils because of other factors such as regular school tests.

Another main limitation is the investigator lack of experience in this field of research where he took the observer role during the treatment. Therefore, he might have missed some

details that may be of great importance for the study. Also, due to the fact of his short expertise, it might have affected his administration and interpretation of the achieved results.

### **Conclusion**

This chapter was dedicated to the analysis of the data that were collected through different tools. Quantitative and qualitative data were analysed then the obtained results proved that video games do enhance the learners' vocabulary acquisition, but it demands playing them frequently. In other words, having video games as kind of a hobby in the individual daily life certainly develop and increase the vocabulary capacity and knowledge.

The achieved results also revealed that the individual will encounter a variation of vocabulary during the playing process; with different ways to understand their meaning. From the qualitative results, the individual is able to understand the words meaning through an image (icons), or the action done by the game character.

### **Recommendation**

The findings of the current study show that there is a significant relationship between video games and vocabulary acquisition. EFL learners at any level suffers from vocabulary limitation, lack of awareness about the benefits of reading literary texts, and the lack of exposure to the native language speakers that hinder them to improve their language skill. Consequently, these factors affect students' development in English writing, speaking, and reading. The researcher aims to present some recommendations in order to enhance and develop students' vocabulary acquisition based on the research objectives, and the findings of the discussion of the results, the researcher suggest some recommendations that would help the EFL tears and learners alike to benefit from playing video game.

First, some recommendations suggested to the learners, since the English language is a foreign language in Algeria, learners should spend more efforts in improving their level. They have to feel the responsibility of developing their level in the four language skills starting with knowing their needs, weaknesses, and what they lack to be able to choose the beneficial methods that strengthen their language competences. Also, they should know the benefits of reading, and communicating outside the classroom, some learners may find reading books boring, or not being able to communicate in English outside the classroom, this is why we suggest to play video games of any kind because during the process of playing games, the learners find themselves reading, and communicating online (with real people) or offline (with Artificial Intelligence). In addition, some video games may even have a narrator (story video games); providing written and spoken language.

In order to improve students' and pupils' abilities in writing, teachers have to vary themes of literary used in their classes which in return will give more ideas to write about. This

variation of literary themes offers the students a chance to show their acquired vocabulary and test them, the student become able to write using vocabulary they acquired outside the classroom and develop their style of writing based on the teachers' feedbacks. Because of the few sessions given to reading, EFL teachers have to motivate their students to read more outside the English language classroom and raise the students' awareness of the benefits of reading literary texts. Also, Teachers should consider the video games as a second option for those who escape from the formal book reading, since it will be outside the classroom.

EFL teachers have to enhance their students' development of vocabulary using technology like bringing some videos, videos about video games play, movies or records about the literary texts that they use in the class. Teachers have also to take into account that the more students comprehend the texts, the better they will recognize vocabulary used in this text, because it is very important for the EFL learners to build a rich knowledge of vocabulary to develop their language competences.

The learner's parents should watch and check the types of the video games they are playing, because video games are provided with age restrictions. Also, if the parents have an English language background, they should observe and ask their children what kind of new words they learned, or what a certain word from the video game means.

### **General Conclusion**

The development of EFL students' vocabulary acquisition is a crucial step at any level in the education system that allows students' to express and communicate their ideas and thoughts. Moreover, there is an agreement among linguists that reading and practising the vocabulary are mutually linked as they develop each other. Furthermore, the needed materials (written, oral, and communication) to improve students' knowledge of vocabulary are provided in an extensive way in video games which will develop their vocabulary acquisition. Students and pupils must acquire a wide variation of vocabulary, in order to avoid the vocabulary limitation. Video games have proven to have an unlimited vocabulary amount with a great variation.

**Reference list**

- Anderson, R. C., & Freebody, P. (1981). Vocabulary knowledge. In J. Guthrie (Ed.), *Comprehension and teaching: Research reviews*, 77–117. Newark, DE: International Reading Association.
- Beck, I., Perfetti, C., & McKeown, M. (1982). Effects of long-term vocabulary instruction on lexical access and reading comprehension. *Journal of Educational Psychology*, 74(4), 506-521.
- Bethesda Game Studios. (2015). *Fallout 4*. <https://www.fallout4.com/>:
- Brewster, Ellis, and Girard. (1992). *Teaching English to Young Learners*. London: Longman.
- Calleja, G. (2011). *In-game: From immersion to incorporation*. Cambridge, Mass.: MIT Press.
- Cameron, L. (2001). *Teaching languages to young learners*. Cambridge: Cambridge University Press.
- Carlo, M., August, D., Mclaughlin, B., Snow, C., Dressler, C., & Lippman, D. et al. (2004). Closing the gap: Addressing the vocabulary needs of English-language learners in bilingual and mainstream classrooms. *Reading Research Quarterly*, 39(2), 188-215.
- Carter, R. (1998). *Vocabulary: Applied linguistics perspectives*. London: Routledge.
- Chik, A. (2012). Digital gameplay for autonomous foreign language learning: Gamers' and language teachers' perspectives. In H. Reinders (Ed.), *Digital games in language learning and teaching*, 95-114. London: Palgrave Macmillan UK.

- Coady, J., & Huckin, T. (Eds.). (1997). *Second language vocabulary acquisition*. Cambridge: Cambridge University Press.
- Curtis, M. E. (1987). What do vocabulary tests measure? In M. McKeown & M.E. Curtis (Eds.), *The nature of vocabulary acquisition*, 37-48. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Decarrico, J. S. (2001). *Vocabulary Learning and Teaching*. Celce-Murcia, M. (ed.). *Teaching English as a Second or Foreign Language*, 285-299. Boston: Heinle & Heinle.
- Dubin, F. (1993). Predicting word meanings from contextual clues: Evidence from L1 readers. In Huckin, T., Haynes, M., and Coady, J (Ed.), *Second language reading and vocabulary learning*, 181-202. Norwood, N.J.: Ablex.
- Egenfeldt-Nielsen, S., Smith, J. H., & Tosca, S. P. (2008). *Understanding video games: The essential introduction*. New York, NY: Routledge.
- Egenfeldt-Nielsen, S., Smith, J. H., & Tosca, S. P. (2013). *Understanding video games: The essential introduction (2. ed ed.)*. New York: Routledge.
- Ellis, R. (2008). *The study of second language acquisition*. (2nd ed). Oxford: Oxford University Press.
- Elshout-Mohr, M. & van Daalen-Kapteijns, M. M. (1987). Cognitive processes in learning word meanings. In M. McKeown & M.E. Curtis (Eds.), *The nature of vocabulary acquisition*, 53-72. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Gairns, R. & Redman, S. (1986). *Working with words: A guide to teaching and learning vocabulary's*: Cambridge University Press.

- Gass, S. (1999). Discussion: Incidental vocabulary learning. *Studies of Second Language Acquisition*, 21, 319-333.
- Gee, J. P. (2003). *What video games have to teach us about learning and literacy*. New York (N.Y.): Palgrave Macmillan.
- Gee, J.P. (2005) *Learning by Design: Good Video Games as Learning Machines*. *E-Learning and Digital Media*, 2, 5-16.
- Gee, J. P. (2013). *Good video games and good learning: Collected essays on video games, learning and literacy* (2nd ed ed.). New York: Peter Lang.
- Graves, M. F. (2006). *The vocabulary book*. New York, NY: Teachers College Press.
- Gruneberg, M. and Sykes, R. (1991). Individual differences and attitudes to the keyword method of foreign language learning. *Language Learning Journal*, 4, 60-62. (Harmer 1991).
- Hatch, E. & Brown, C. (1995). *Vocabulary, Semantics, and Language Education*. Cambridge: Cambridge University Press.
- Hauge, Elizabeth (1999). Some common emblems used by British English teachers in EFL classes. In Killick, David & Margaret Parry (Eds.), *Cross-cultural Capability - Promoting the Discipline: Marking Boundaries and Crossing Borders* Proceedings of the conference at Leeds Metropolitan University Dec. 1998, 405-420. (Ilson, 1991).
- Hornby, AS. (1995). *The Advanced Learner's Dictionary of Current English*. In advance learners' dictionary of English.
- Huckin, T & Coady, J. (1999). Incidental vocabulary acquisition in a second language: A review. *Studies of Second Language Acquisition*, 21, 181-193.

- Hulstijn, J. H. (2003). Incidental and intentional learning. In C. Doughty & M. H. Long (eds). *The handbook of second language acquisition*, 349-381. Oxford: Blackwell.
- Hunt, A., Beglar, D. (1998). Current research and practice in teaching vocabulary. *The Language Teacher*, 22 (1).
- Kasper, G., & Schmith, R. (1996). Developmental issues in interlanguage pragmatics. *Studies in Second Language Acquisition*, 18, 149-169.
- Lesaux, N., Kieffer, M., Faller, S., & Kelley, J. (2010). The Effectiveness and Ease of Implementation of an Academic Vocabulary Intervention for Linguistically Diverse Students in Urban Middle Schools. *Reading Research Quarterly*, 45(2), 196-228.
- Lave, J., & Wenger, E. (1991). *Situated learning : Legitimate peripheral participation*. Cambridge: Cambridge University Press.
- League of Legends Reddit Community. <https://www.reddit.com/r/leagueoflegends/>
- Moline, T. C. (2010). Playing our way to cognitive self-efficacy: A qualitative study of adolescent video gamers and their perceptions of their ability to learn, Available from PsycINFO.
- McCarthy, M. J. (1988). Some vocabulary patterns in conversation. In R. A. Carter and M. J.
- National Institute of Child Health and Human Development (NICHD). (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Washington, D.C.

- Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press. (Neuman, S. B., & Dwyer, J. (2009). Missing in action: Vocabulary instruction in pre-k. *The Reading Teacher*, 62(5), 384-392.
- Nyiazadeh, A. (2009). *Input-output Enhancement and Incidental Learning of Propositions*. MA Thesis, Allameh-Tabatabayi University. Tehran, Iran.
- Paribakht, T. & Wesche, M. (1999). Incidental L2 vocabulary acquisition: Theory, current research and instructional implications. *Thematic Issue: Studies in Second Language Acquisition*, 21 (2).
- Perfetti, C. (2007). Reading Ability: Lexical Quality to Comprehension. *Scientific Studies of Reading*, 11(4), 357-383.
- Peterson, M. (2013). *Computer games and language learning*. New York, NY: Palgrave Macmillan.
- Piirainen-Marsh, A., & Tainio, L. (2009). Other-repetition as a resource for participation in the activity of playing a video game. *The Modern Language Journal*, 93(2), 153-169.
- Pinter, A. (2006). *Teaching young language learners*. Oxford: Oxford University Press.
- Reinders, H., & Wattana, S. (2012). Talk to me! games and students' willingness to communicate. In H. Reinders (Ed.), *Digital games in language learning and teaching*, 156-188. London: Palgrave Macmillan UK.
- Reinhardt, J., & Sykes, J. M. (2012). Conceptualizing digital game-mediated L2 learning and pedagogy: Game-enhanced and game-based research and practice. In H. Reinders

- (Ed.), *Digital games in language learning and teaching*, 32-49. Basingstoke ; New York: Palgrave Macmillan.
- Rott, S. (1999). The effect of exposure frequency on intermediate language learner 's incidental vocabulary acquisition and retention through reading. *Studies of Second Language Acquisition*, 21, 589-619.
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions.
- Ryan, R. M., Rigby, C. S., & Przybylski, A. (2006). The motivational pull of video games: A self-determination theory approach. *Motivation and Emotion*, 30(4), 344-360.
- Schmitt, N. (1997) *Vocabulary Learning Strategies*. In: Schmitt, N. and McCarthy, M., Eds., *Vocabulary: Description, Acquisition, and Pedagogy*, Cambridge University Press, Cambridge, 198-227.
- Scrivener, J. (2005). *Learning teaching: A guide book for English language teachers*. UK: Macmillan.
- Sime, Daniela (2001). The use and perception of illustrators in the foreign language classroom. In Cavé, Christian, Isabelle Guaitella, & Serge Santi (Eds.) *Oralité et gestualité. Interactions et comportements multi modaux dans la communication* (pp. 582-585). Paris: L'Harmattan.
- Stahl, S. A., & Fairbanks, M. M. (1986). The effects of vocabulary instruction: A model-based meta-analysis. *Review of Educational Research*, 56, 72-110.

- Stahl, S., & Nagy, W. (2006). Teaching word meanings. Mahwah, NJ: Lawrence Erlbaum Associates.
- Stuart, W. (2008) : Receptive and productive vocabulary size of L2 learners, *Studies in Second Language Acquisition*, 30 (01), 79 – 95.
- Sundqvist, P., & Sylvén, L. K. (2012). World of VocCraft: Computer games and Swedish learners' L2 English vocabulary. In H. Reinders (Ed.), *Digital games in language learning and teaching*, 189-208. London: Palgrave Macmillan UK.
- Sundqvist, P. (2009). *Extramural English Matters: Out-of-school English and Its Impact on Swedish Ninth Graders Oral Proficiency and Vocabulary*. (Doctoral dissertation). Karlstad: Karlstad University.
- Susanto, A. & Fazlinda, A, (2016). English Vocabulary Acquisition through Vocabulary Learning Strategy and Socio-Educational Factors: A Review. *Applied Science and TEchnolog*, 1(1), 173, 166-173.
- Takač, V. P., & Singleton, D. (Eds.). (2008). *Vocabulary learning strategies and foreign language acquisition*. Canada: Multilingual Matters Ltd.
- Teller, Marion., (2008). The effect of gestures on second language memorization by young children. *Gesture*, John Benjamins Publishing, 8(2),219-235.
- Tellier, Marion (2007). How do teacher's gestures help young children in second language acquisition? *Proceedings of the meeting of International Society of Gesture Studies, ISGS 2005: Interacting Bodies*, June, 15th-18th, ENS Lyon, France.

- Thorbury, S. (2002). *How to teach vocabulary*. England: Pearson Education Limited. Ur, P., (1998). *A course in language teaching*. Cambridge University Press.
- Turnbull, J. (2011). *Oxford Advanced Learner's Dictionary* (8th ed). Oxford: Oxford University Press. Retrieved January 28, 2012.
- Valve Corporation. (2007). Portal. <http://store.steampowered.com/app/400/>:
- Walters, J.M. (2004) 'Teaching the use of context to infer meaning: A longitudinal survey of L1 and L2 vocabulary research'. *Language Teaching*, 37(4), 243-252.
- Wenger, E. (1999). *Communities of practice: Learning, meaning, and identity* (Paperback ed.). Cambridge: Cambridge University Press.
- Whitton, N. (2010). *Learning with digital games: A practical guide to engaging students in higher education*. New York: Routledge.

## Appendices

### Pre-test

**Task one:** Put the words in the correct place: meet, play, sword, run, from, name,

A- Hello! My.....is Cortez, I am ..... Mexico.

B- Nice to .....you Cortez.

A-I like to ..... video games, and ..... in the park. What about you?

B- I am a knight and I practice fighting with a .....

**Task two:** Read and circle the correct answer.

- 1- My cat is my:     friend            –     pet       –     toy
- 2- My sister is my:   family           –     neighbor       –     cousin
- 3- My aunt has a:     kids            –     baby           –     birds
- 4- I crouch to dodge the:            wind            –     arrow           –     ants
- 5- The teacher talked to the:       workers       –     volunteers   –     pupils

**Task three:** Match the following words.

Bird

Orange

Potato

bow

Hammer

Tool

Vegetable

weapon

Fruit

Animal

## Post-test

**Task one:** Put the words in the correct place: talk, shoot, crouched, hit, running, jump

1. Jane ..... to get her shoes from under the bed.
2. Jeff..... high to reach the apple on the tree.
3. The hero ..... the target then the king went to ..... to him and reward him.
4. The thief ..... the victim and start .....

**Task two:** Cross the odd word.

- 1- Sword – Computer – Bow – Shield
- 2- Up – Down – Through – Right
- 3- Pick – Talk – Take – Door
- 4- Sleep – Start – Save – Quit

**Task three:** Order the words to make a sentence.

- 1- go / the / forest / Save  
.....
- 2- enemy / You / the / resist / must  
.....
- 3- with / them / bow! / Shoot / the  
.....
- 4- a / gems / Collect / of / lot  
.....
- 5- monsters / the / a / with / sword / Attack  
.....

## ملخص

الهدف من هذا البحث هو التحقيق في استخدام العاب الفيديو لتعزيز اكتساب المفردات. حيث حاولنا معرفة اذا كان طلاب السنة الاولى في متوسطة الامام علي بتفرت سيستفيدون من استخدام العاب الفيديو لاكتساب المفردات الجديدة. يرتكز هذا البحث على ثلاثة فصول: الفصل الأول و الثاني يشملان جزء نظري أما الثالث فجزء تطبيقي ، قمنا باجراء مقارنة بين مجموعتين ، مجموعة قدم لها تمرين خاص بالعاب الفيديو ، أما المجموعة الثانية خاصة بالمقارنة. استنادا الى النتائج المتحصل عليها تبين لنا أن استخدام الطلاب لالعاب الفيديو لتعلم المفردات و تحسينها ادى الى تحسن النتائج في الفرض الثاني، ما يعني ان هذا ساهم في تحسين و زيادة اكتسابهم لمفردات جديدة. و أردنا ان نعرف ايضا طريقة تعامل التلاميذ و استعابهم للكلمات في العاب الفيديو التي كانت ايجابية. و عليه تم اقتراح ادراج العاب الفيديو كوسيلة لتحسين و تعزيز اكتساب المفردات خارج نطاق التعليم.