# **An-Najah National University Faculty of Graduate Studies**

# The Influence of Multimedia on Improving the Sixth Graders' English Vocabulary in Nablus City Private Schools

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This Thesis is Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Methods of Teaching English Language, Faculty of Graduate Studies, An-Najah National University, Nablus, Palestine

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## **Dedication**

I dedicate my dissertation work to my beloved parents who encouraged and motivated me all the time.

To my brothers and sisters and to all my friends who have never left my side.

I would like to thank my colleagues for their support and cooperation and wish them all the success in their study.

## Acknowledgment

I would like to express my sincere gratitude to my advisors Dr. Ahmed Awad and Dr. Suzanne Arafat for their constant guidance, support and encouragement. Also my deepest appreciation for the rest of the committee Dr. Fayez Aqel and Dr. Ayda Bakeer for their valuable comments.

Thanks also extended to the Faculty of Graduate Studies at An-Najah National University in general and to all instructors in the English Department in specific.

∨ الإقرار

أنا الموقعة أدناه ، مقدمة الرسالة التي تحمل العنوان:

The Influence of Multimedia on Improving the Sixth Graders' English Vocabulary in Nablus City Private Schools

أقر بأن ما اشتملت عليه هذه الرسالة إنما هو نتاج جهدي الخاص ، باستثناء ما تمت الإشارة إليه حيث ما أن هذه الرسالة كاملة ، أو أي جزء منها لم يقدم من قبل لنيل أي درجة أو لقب علمي أو بحث لدى أي مؤسسة تعليمية أو بحثية أخرى.

## **Declaration**

The work provided in this thesis, unless otherwise referenced, is the researcher's own work, and has not been submitted elsewhere for any other degree or qualification.

اسم الطالبة: صابرين فهمي مصطفى بري

التوقيع:

Date: 10 / 12 / 2017 التاريخ: 10 / 12 / 2017

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# The Influence of Multimedia on Improving the Sixth Graders' English Vocabulary in Nablus City Private Schools

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#### **Abstract**

This study investigated the influence of multimedia on improving the sixth graders' English vocabulary in Nablus city private schools. It also examined the effect of gender and group variables on students' performance. To achieve these goals, the researcher used a vocabulary test. This test was applied on (66) sixth grade students, divided into two groups, (33) students in each group at Saint Joseph's School in the second semester of the scholastic year 2016/2017. The researcher distributed the vocabulary pre-test on the control group and the experimental group. The same groups were asked to answer the post-test after teaching the experimental group by using multimedia. Additionally, the researcher conducted classroom observations for the multimedia classes. Based on the findings of the study, the researcher found that there was a positive effect for multimedia on improving students' English vocabulary. In the light of this finding, the researcher recommended applying multimedia in the learning-teaching process. Further recommendations were directed for teachers to apply multimedia strategy, while the Ministry of Education was addressed to organize training programs to train teachers on using multimedia tools.

# **Chapter One**

# **Introduction and Theoretical Background**

- 1.1 Introduction and Theoretical Background
- 1.2 Statement of the Problem
- 1.3 Purpose of the Study
- 1.4 Questions of the Study
- 1.5 Significance of the Study
- 1.6 Limitations of the Study
- 1.7 Definitions of Terms
- 1.8 Summary

## **Chapter One**

## **Introduction and Theoretical Background**

#### 1.1 Introduction and Theoretical Background:

Vocabulary is an important component which plays important function in learning languages; all types of vocabulary considered the constructing units of language and the absence of them lead to hurdles in studying the other portions of language. Therefore, expanding vocabulary should be the main concern for language teacher. Learning words is an essential aspect in foreign language learning (Jumairati, 2010). Students' performance will improve much if they learn more words and expressions. It is indispensable for students to know a lot of vocabulary for making progress in using the language communicatively.

Neuman and Dwyer (2009) defined vocabulary as words either in speaking or in listening (expressive or receptive words) that the students must know in order to produce effective communication. Vocabulary Knowledge is very crucial in learning a foreign language because limited vocabulary hinders successful communication. Nation (2001) asserted the complementary rapport among vocabulary knowledge and language use, that is the knowledge of words leads to effective language use and vice versa. Vocabulary potentials play a fundamental role in language proficiency.

Rivers (1989) as cited in Nunan (1991) stressed the necessity of acquiring adequate vocabulary for effective use of language, because the

lack of adequate lexicon leads to difficulties in producing effective communication. According to Berne and Blachowicz (2008) a lot of teachers are not convinced about the preferable method to teach vocabulary and they face problems in teaching vocabulary efficiently. As a teacher, it is necessary to find new teaching techniques to overcome vocabulary learning problems, and also to motivate the students to be active learners.

The integration of technology in the educational process has great importance; the use of multimedia aids has gained great importance because it helps the teachers to prompt students' interest to involve in the lesson effectively. Karen (1991) confirmed that students belong to different learning styles. Some students are auditory, some are visual and some are kinesthetic. Because most material is demonstrated, presented or learned verbally, visual learners suffer more than other learners who belong to other learning styles. In reference and with regard to vocabulary the same is applicable. Camerona & Francisco (2006) stressed the importance of integrating multimedia in the classroom in order to facilitate the teaching process. In this study, the researcher attempts to shed light on using multimedia as a mean for teaching vocabulary. Multimedia proved its effectiveness in almost all fields of knowledge. It integrates students' sense of hearing and seeing sense. Therefore, this integration leads to clear and concrete understanding of the concept. Malik and Pandith (2011) stated that multimedia are those tools that make learning and teaching more interesting, stimulating and effective.

In the area of research, there are proponents and opponents in regard to the powerful effects of using multimedia in the teaching and learning process. In regard to the effectiveness of multimedia Brown, Lewis & Harcleroad (1985); Sampath, Penneerselvem & Santhan (1998); Prasad (2005) and singh (2007) claimed that the skillful application of multimedia can bring about a lot of benefits for learners including: First, making learning and teaching process more vivid, interesting and lively. Second, making learning permanent. Third, maintain classroom discipline. Fourth, Improve teachers' performance by saving time and energy. Fifth, it may generate a functional learning environment, in which students could promote their ability to use the language.

In regard to the ineffectiveness of multimedia Sampath et al (1998); Prasad (2005); Tan (2000) and Awshanti (2014) said that multimedia has the following demerits: First, Teachers' inability to use multimedia tools properly. Second, large amount of time to prepare teaching materials. Third, in the functional teaching process, some schoolteachers ignore the importance of classroom teaching aids during planning the courseware which results in immoderate informative. Fourth, financial hurdles.

#### 1.2 Statement of the Problem:

Learners of English face a lot of difficulties in comprehending what they listen to or read; they also face obstacles to express their thoughts and ideas in speaking and writing. According to the researcher's experience in teaching English language, she has noticed that most students face difficulty in acquiring vocabulary and the lack of vocabulary affects negatively the four skills (listening speaking, reading and writing). This difficulty can be related to different reasons, one of which is ineffective vocabulary teaching and learning. Considering the above, this study tried to answer the following main question, " What is the effect of using multimedia on improving students' vocabulary?".

#### 1.3 Objectives of the Study:

This study has the following objectives:

- 1. Determining the effect of multimedia on improving the sixth graders' English vocabulary.
- 2. Finding out if there are any significant differences in the learners' performance in vocabulary as a result of using multimedia on the sixth graders' achievement in English vocabulary due to gender and group.

#### 1.4 Questions of the Study:

This study attempted to answer the following questions:

- 1. What is the effect of using multimedia on improving students' vocabulary?
- 2.Are there any statistically significant differences at  $(\alpha=0.05)$  on improving students' vocabulary according to the pre-test between the experimental group and the control group?

- 3.Are there any statistically significant differences at  $(\alpha=0.05)$  on improving students' vocabulary in the pre-test between the experimental group and the control group due to gender?
- 4.Are there any statistically significant differences at  $(\alpha=0.05)$  in using multimedia on improving students' vocabulary between the pre-test and the post-test of the experimental group?
- 5.Are there any statistically significant differences at  $(\alpha=0.05)$  in using multimedia on improving students' vocabulary between the pre-test and the post-test of the control group?
- 6.Are there any statistically significant differences at  $(\alpha=0.05)$  in using multimedia on improving students' vocabulary between the post-test due to gender variable?
- 7.Are there any statistically significant differences at  $(\alpha=0.05)$  in the posttest on improving students' vocabulary due to the interaction between gender and group variables?

#### 1.5 Significance of the Study:

This study is important because students nowadays are addicted to use different kinds of technology in their learning rather than the traditional way, so by using multimedia, learners will be more interested and more motivated to engage with the lesson than being exposed to traditional ways of teaching (Raba', 2017).

The researcher also sees this study important because it provides teachers with information about the benefits of multimedia, so they will use multimedia efficiently in the classroom.

Draw the attention of stakeholders to the importance of integrating multimedia into the educational process.

#### 1.6 Limitations of the Study:

This study considered the following limitations:

- 1. Locative limitation: this study covered all the sixth graders in one private school in Nablus city which is Saint Joseph's school.
- 2. Time limitation: this study was accomplished through the second semester the scholastic year 2016/2017.
- 3. Human limitation: the sample of the study consists of all the sixth graders in Saint Joseph's School consisting of (66) students with (33) students in each group.
- 4. Topical limitation: this study examined the effect of using multimedia on improving the sixth graders' vocabulary in the private schools in Nablus city.

#### 1.7 Definition of Terms:

**Vocabulary:** Kamil and Hiebert (2007) defined vocabulary as the knowledge of words and words meaning.

**Multimedia:** multimedia refers to interactive application that integrates texts, color, graphical images, animation, audio-sound, and full motion video in a single application.( Gilakjani,2012)

#### 1.8 Summary:

This chapter dealt with basic components of this study. The researcher introduced the theoretical background and the problem of the study. Furthermore, this chapter represented the questions of the study, the objectives of the study, the significance of the study the limitations of the study, and at the end, definition of terms related to the subject of the study.

# **Chapter Two**

## **Review of Related Literature**

- 2.1 Introduction
- 2.2 Vocabulary
- 2.3 Multimedia
- 2.4 Multimedia theory
- 2.5 Review of Related Literature
- 2.6 Summary

## **Chapter Two**

#### **Review of Related Literature**

#### 2.1 Introduction

In this chapter the researcher reviews the literature related to the topic of this study. Moreover, summaries of studies related to multimedia were given. For the sake of clarifying and easing the construction of literature review, the researcher arranged the cups of knowledge into sections according to their importance. The first section deals with vocabulary and its importance in learning a language. The second section presents the benefits of using multimedia. The third section deals with multimedia theory. The fourth section presents some previous studies.

#### 2.2 Vocabulary:

Vocabulary is very important in learning English because it is considered the ultimate obvious ingredients of language. It also represents a great role in language acquisition. Vocabulary is necessary to support the four language skills (Cameron, 2001).

Vocabulary is essential for learners to express their ideas and to understand others. Without grammar, students could convey a little information but without vocabulary there is nothing to convey (Wilkins, 1972). Rich vocabulary enhance learners' ability to communicate through all language skills.

In addition, learning words is essential for mastering a language and it is also the key for ingenuity which supplies the base for learners' skillfulness in all language skills (Richard and Renandya, 2002). According to Nation (2001), there is a complementary connection among knowing vocabulary and language use: the more vocabulary you know, the better you will use the language.

Nation (1990) and Krashen (1986) stated reasons why increasing your vocabulary is worth. First, vocabulary enables learners to communicate effectively. Second, good amount of vocabulary leads to improve other skills. Third, students who know more words are able to use them to learn more.

In contrary, the lack of vocabulary affects negatively the other language skills. Granowsky (2002) said that students cannot communicate with limited vocabulary. The limitation in vocabulary knowledge hinders efficient communication (Read, 2004). According to Akin and Seferoglu (2004), learners who have inadequate vocabulary will face obstacles in expressing their ideas and also in communicating with others.

Researchers found that the main obstacle which face learners in L2 learning is the lack of vocabulary (Coady and Huckin, 1997). To overcome this problem which results from limited vocabulary knowledge, teachers should give more attention to vocabulary instruction. According to National Reading Panel (2000), it is important for students to have explicit instruction of vocabulary in order to develop vocabulary intentionally. According to Stahl and Fairbanks (1986), to promote learners' vocabulary

knowledge, students should learn around 350 word every year. O'Rouke (1974) argued the importance of learning vocabulary, and stated that it affects students' thoughts, aspiration and success.

Vocabulary is very important in learning English. By having large vocabulary knowledge students find it simple to pick up the language and to utilize it communicatively. Vocabulary acquisition is fundamental in using the second language effectively and also it offers an essential role in forming meaningful speaking conversations and writing texts Maximo (2000); Read (2000) and Gu (2003a). Other researchers argued that, for skillful language learning, it is necessary to learn a lot of words. They also stated that in order to have effective and efficient pedagogical method in teaching L2, vocabulary should receive higher importance (Ghabanchi and Anbarestani, 2008).

Vocabulary is the core of language as Rupley, Logan and, Nichols (1999) stated that vocabulary knowledge reinforces students' comprehension. On the other hand, Harmer (1993) confirmed that learners will not be qualified to speak the language effectively without vocabulary. Learners should know large amount of vocabulary in order to comprehend from the occasion that they are facing. Both teachers and learners should support vocabulary learning because vocabulary learning is central for the acquisition of the first and the second languages (Decarrico, 2001).

Zhang and Li (2011) emphasized the value of learning words in the acquisition and proficiency of second language learning. As well, they

added that language proficiency depends on the quality and the quantity of students' mastered vocabulary.

Furthermore, Rivers (1989) as cited in Nunan (1991) asserted that for the success in second language, it is essential to acquire adequate vocabulary because without word knowledge, students could not use what they have mastered in understandable contexts.

#### 2.3 Multimedia:

Nowadays in a tremendous acceleration in technology development, the integration of technology in the pedagogical system is a demanding necessity to keep up with the evolution of this era. Employing multimedia in education is popular because schoolteachers seek to use new ways in teaching which make students happier, more enjoying, more motivated, and at the same time suitable for the technological development.

Researches in the field of multimedia show that learners learn new concepts more easily when they are presented in verbal and visual form (Salomon, 1988). Multimedia defined by Agnew, Kellerman and Meyer (1996) as the collection of pictures, text, sound and video into a presentation in order to transmit information to an audience. According to Vaughan (2011), multimedia is a collection of textual, pictorial, sounds and animated videos which are digitally manipulated.

Multimedia is a set of typography, audio and pictorial, that promote input by making it more intelligible (Plass and Jones, 2005). Multimedia technologies support learning experience because they make learning new concepts easier when presenting the words complemented with images and

animation (Ogunbote and Adesoye, 2006). Multimedia is beneficial for foreign language learners (Siddiqi, 2007). Several studies such as (Fletcher, 2003; Kozma, 1991; Mayer, 2001 and Bagui, 1998) argued that multimedia could enhance understanding and remembering the presented material inside the classroom.

Al-Seghayer (2001) Kost, Foss and Lexini (1999); Plass, Chun, Mayer, Leutner (1998), and Chun and Plass (1996) discussed the effectiveness of dual presentation of vocabulary (text + visual aids). The studies revealed that the students who learnt vocabulary by using text in combination with images or videos acquired more words and performed better than learners who learnt verbally (Yeh & Wang, 2003). Similarly, Mayer (2005) supported the effectiveness of the dual presentation of vocabulary and stated that, through visualization better learning process takes place than presenting words in isolation.

Furthermore, Asoodeh (1993) showed that using animated visuals is more significant on mental rotation than using static visuals. Arnheim (1994) asserted that learning visually could promote comprehending abstract notions. Similarly, Rieber (1990) suggested that computer pictorials are important for acquiring awareness and encouraging learners to inspire rational images which make learning more accessible.

Peck (1987) confirmed that presenting a mixture of text and image together can improve information retention. Nouri and Shahid (2005) concluded that when the teacher used power point as a multimedia medium students performed better on quizzes and also they showed positive

attitudes towards learning. Cabera (2013) and Majed (2015) stated that the different forms of multimedia strengthen students' understanding and improve their information retention.

Underwood (1989) suggested that the visual memory is the common place for learning; humans recall visuals more than texts and texts can be better recalled when they are linked with visuals. Terrel (1986) argued that vocabulary learning could be facilitated by combining new words with visual aids.

According to Alfahad (2009), using educational technology influences students' communication skills, and it changes them from passive into active and more communicative learners. Lu (2010) concluded that when teachers present the educational material by using audio-visual animation, learners' curiosity towards learning increases and the students could be familiar with what they learn more.

To supporting this view, Omagbemi (2004) and others stated that using multimedia could create conducive learning milieu which leads to more significant learning and satisfactory for learners' needs. The use of properly designed multimedia affects students' achievement positively, thus the use of multimedia affects the education positively (Akkoyunlu and Yilmaz, 2005) as cited in Ilhan & Oruc (2016). In multimedia environment where all student's senses work at the same time, students could improve their concerns towards learning which leads to fostering learning efficiency (Li, 2009).

According to Holizinger, Kickmeier-Rust, Wassertheurer and Hessinger (2009), using multimedia changes learning and teaching into a dynamic process and they become more successful in attracting and motivating the learners. Said (2007) stated that well-designed multimedia is an important factor for active learning process. Also it motivates students to learn effectively.

According to Olibie (2010) computer-assisted language learning possesses a positive impact on students' accomplishment in English more than conversational English language instruction ( Tabar & Khodareza, 2012). Silverman and Hines (2009) asserted that multimedia could enhance reading aloud and vocabulary instruction. They suggested that presenting information verbally and nonverbally may benefit English language learners. Using videos in conjunction with read aloud method improves vocabulary for English language learners.

Mayer and Moreno (2003) confirmed that multimedia is valuable for students who do not have sufficient previous knowledge. Multimedia supports those learners in improving mental patterns and connecting them to the current knowledge domain. Hong & Leong (2003) claimed that multimedia affects positively low motivated learners. The use of multimedia mediums such as pictures, animation and videos help in keeping them involved and direct them towards self-learning.

Multimedia supplies good environment for students to avoid boredom in the classroom. It also supports sufficient knowledge transformation (Sandars, 2012). According to Gilakjani (2012), there are three reasons for using multimedia in education increasing students' interest level, enhancing their understanding, and improving their ability to memorize (Zafarghandi & Kargiban, 2016).

Several studies such as Kulik, Bangert and Wiliams (1983); Schmidt, Weinstein, Niemic and Walberg (1985) indicated the effectiveness of multimedia aided teaching over the traditional teaching. They stated that multimedia could minimize the time of learning in contrast to the classical method. Furthermore, multimedia helps learners build their own knowledge because it addresses different approaches and styles to learning (Singh, 2003). According to Mandernach (2009), learners can enhance their learning and increase achieving learning goals through well-designed multimedia resources.

Ogasawara (1994) and Vanderplank (1993) discussed that, the use of movies in the schoolrooms provides a relaxing and motivating educational environment and the result is more motivated learners. In contrast, Baltova (1999) and Danan (2004) believed that captioned movies are not useful for second language learners (Zarei & Gilanian 2013).

#### 2.4 Multimedia Theory:

Multimedia learning relies basically on a number of theories; Krashen's input hypotheses, Paivio's dual coding theory and Mayer's Cognitive Theory of Multimedia Learning (CTM).

The input hypotheses is about how to acquire language ( not learn ). According to this hypotheses, we acquire language by understanding language inputs which is one step beyond our linguistic competence, it is

what krashen's called the comprehensible input (Krashen & Terrell, 1983). Accordingly, in the process of second language learning, multimedia can provide a combination of audio and visual input in order to stimulate deeper comprehension (Wang, 2012).

As for the dual coding theory, there are two basic assumptions: mental structure and processes when dealing with language learning, structures concerned with verbal and nonverbal (imagery) representations, and the processes contain the development and activation of structures (Clark and Paivio, 1991). Verbal information can be enhanced and easily remembered when they are supported with relevant visual information (Anderson & Bower, 1973). This is what exactly multimedia learning relies on. It helps learners to make connections between the auditory and imagery representations for more effective learning. Brunye, Taylor & Rapp (2008), stated that dual coding theory is applied in multimedia learning because learners use each of oral and spatial memory to deal with the presented knowledge, and as a result, they are more probable to recall this information.

Cognitive Theory of Multimedia Learning (CTML), believes that learners can improve their learning when they found connection among texts and images than texts or images alone (Mayer,2005). CTMLsuggests three basic presumptions: the dual-channel presumption, the limited capacity presumption, and the active processing presumption. The dual coding presumption deals with the way of processing information. It assumes that there are two disconnected channels (auditory and visual)

based on Paivio's coding theory (1986). The limited capacity presumption is that each channel has a limited capacity based on Swellers' cognitive load theory (1988). The active processing assumption assumes that learners build knowledge meaningfully through filtering, choosing, arranging and combining the fresh information with their prior knowledge (Sorden, 2012).

According to Mayer (2001) multimedia learning is an example of dual connection between cognition and instruction. Mayer & Moreneo (2003) stated that multimedia learning requires fundamental cognition processing engagement during learning with the verbal and visual presentations (Afsaneh, 2015). Mayer (2002) confirms that active learning happens as a result of verbal and pictorial harmonization representations in each channel of human cognition at one time (Zarei & Gilanian, 2013).

#### 2.5 Related Studies:

In order to develop a deeper insight about multimedia, the researcher reviewed the following related studies about using multimedia in the educational process in general, and the use of multimedia as a tool for teaching vocabulary in particular.

Ilhan & Uroc (2016), studied the effect of using multimedia on students' performance. The findings of the study revealed that the use of multimedia increases the academic success of students in social studies classes compared with traditional classes.

Similarly, in the field of studying the impact of multimedia on students' achievement there are several studies with slight differences such as a study conducted by Ameen (1995) which revealed that using multimedia has positive impact on students' achievement. The differences in both the academic achievement and the attitudes towards using the computer were in favor of the experimental group. Another study conducted by Al-Oraini (2012) revealed that there was rising in the academic achievement of students who participated in the experimental group which taught by using diagrams and programmed films. Ercan (2014) study revealed that multimedia enhances students' academic achievement. Another finding showed that female students performed better than males.

Allen (1997) stated that students have higher achievement through using multimedia instruction. Also students showed increase in knowledge retention. Similarly, McDonald (1996) found out that multimedia has a favorable effect upon students' achievements. Another result revealed that students had attitudes towards learning by using multimedia.

Perry and Perry (1998), conducted a study to investigate university students' attitudes towards multimedia presentations. They tested 109 students who registered in two types of classes: teacher instruction and computer based instruction. They found out that students preferred classes which used multimedia presentation and they felt more interested and enjoyable attending multimedia classes.

Issa, Cox and Killingsworth (1999), studied the effect of multimedia instruction on improving students' learning compared to the classical instruction. They found that using multimedia leads students to perform

better. They also confirmed that the use of multimedia courseware could enhance the educational process.

Harris and West (1993) concluded that using multimedia is effective and efficient in teaching technical skills. They also added that multimedia could minimize learning time, increase remembrance, and rise students' motifs and involvement in the process of learning.

Shuell and Menter (2003) study revealed that multimedia could increase students' organizational quality of essay writing mainly for learners who gained low results in the pre-test.

In a similar way, Itmeizeh (2008) examined the impact of multimedia on promoting English reading and writing, the results asserted that multimedia is an effective teaching method which could enhance the learning process positively.

Additional study prepared by Pudsadee (2013) investigated the effectiveness of multimedia-based instruction to develop the sixth grade English ability. The study also assessed the students' attitudes towards learning English after teaching through multimedia-based instruction. The study results showed that multimedia affected students' achievement positively. Concerning the learners' attitudes towards multimedia instruction, the outcomes exposed that students prefer to learn English through multimedia.

Gilakjani (2012), examined multimedia role on motivating EFL learners, the findings stated that multimedia could give students a set of learning styles at one time and this could meet the students' individual

differences. Furthermore, the researcher mentioned three reasons for the effectiveness of using multimedia: it raises students' concern level, fosters their comprehension, and increases their remembering ability.

Atawaim (2000), studied the impact of computer based instruction on students' achievements. The findings of the study showed that students who participated in the experimental group which uses the computer as a learning tool have performed better in information remembrance, and they also achieved better results than students who were taught traditionally.

In contrast, a study examining the effect of multimedia on students' academic achievement, Algerioy (1999) found that there are no effects for multimedia on improving students' remembrance and understanding levels.

In the field of using multimedia to teach vocabulary there are a limited number of studies, Al-Seghayer (2001) examined the impact of multimedia annotation modes on acquiring vocabulary. The study aimed to determine the most effective aid to teach vocabulary out of the three choices (picture patterns active video or static picture). The results revealed that using videos is more functional in teaching new words than using static pictures.

In another study which tested the impact of combining texts with images for teaching vocabulary in a multimedia reading setting, Yoshii and Flaitz (2002) applied three types of illustrations: pictures, texts and an integration of both texts and pictures. The results showed that using a blending of text with picture led to greater vocabulary learning than using a single mode.

Similarly, Kost, Foss and Lenzini (1999) compared the effect of imagery and literal glosses on vocabulary expansion. They used three glossing conditions: imagery glosses only, literal glosses only and a blend of imagery and literal glosses. The findings showed that using a blend of imagery and literal led to better vocabulary production and realization.

Another study conducted by Jones (2004), examined the effect of pictorial and written annotations on L2 vocabulary learning. The results showed that using a set of written and imagery annotations could improve students' vocabulary learning and understanding better than using imagery annotation alone.

In another experiment, Lyman-Hager, Davis, Burnett & Chennault (1993) investigated the effect of a multimedia on vocabulary acquisition. The outcomes exposed that the students who involved in multimedia instruction performed better in vocabulary retention than the students involved in traditional teaching method.

Plass, Chun, Mayer and Leunter (1998), examined the effect of different gloss types in a multimedia context. The study aimed to determine whether learners could learn words more when presented with both verbal and visual glosses or when presented in one mode. The study indicated that learners' performance was much better when new words presented in both verbal and visual glosses, comparing to using one gloss.

Sydorenko (2010), studied the influence of audio, video and captions on learning word forms and vocabulary acquisition. The findings showed that integrating audio and video with captions leads to better results in

written realization of word form, while video and audio got higher results in aural recognition than in written. The findings also confirmed that video, audio and captions group learned more words than audio and video group.

On the other hand, Zarei and Gilanian (2013), investigated the impact of multimedia on learning vocabulary. They used the same design that Sydorenko (2010) have applied in his study, but they found different results. Their study revealed that there are no effects for multimedia on vocabulary comprehension and production. Similarly, some studies showed that captioned movies and animation are not beneficial for all L2 learners, especially for young learners. They also indicated inefficiency of L2 vocabulary learning without any learning support. They asserted that captioned movies and animation can be used for advanced and intermediate learners (Baltova, 1999; Danan, 2004; Sun & Dong, 2004).

Neri, Cucchiarini and Strik (2008), studied the efficiency of computer corrective feedback on improving chunks quality. The study aimed at testing the effectiveness of computerized pronunciation program on upgrading students' word level. The findings showed that the participants who were enrolled in the computerized pronunciation program have got the largest improvement, but this improvement was not statistically significant.

In a study aimed at investigating the effect of computer software on learning vocabulary, Pahlavanpoorfard and Soori (2014) confirmed that learners who were enrolled in learning vocabulary through using computer software have performed better than learners who joined the traditional teaching method.

Khyiabany, Ghonsooly & Ghabanchi (2014), examined the impact of multimedia on vocabulary learning in high school classes. The study tried to find out whether multimedia could improve vocabulary achievement and retention. The findings of the study revealed that multimedia is more efficient to teach new words than the classical method. The results also showed that multimedia fosters students' remembrance.

Rezaee and Sharbaf Shoar (2011) asserted that using movies for promoting reading comprehension enhances students' learning and recalling vocabulary than students who were exposed to reading texts only or in combination with pictures.

#### 2.6 Summary:

In this chapter, the researcher discussed the importance of teaching vocabulary, and what scholars think about it. Then, she related the strategy of multimedia with other theories. The researcher also summarized some empirical studies on the international and local levels which showed the effect of implementing multimedia on students' achievement and performance in different stages and subjects in the educational process. Teachers are aware to differentiate instruction methods in order to meet students' needs and learning preferences. Multimedia focuses on the positive involvement of students in the process of learning which is the ultimate goal of the educational system.

The current study is unique because it was not conducted on university or college students, but it was carried out on low basic school students, especially on sixth grade students in Nablus city private schools to examine the effect of multimedia instruction on improving students' English vocabulary.

# **Chapter Three**

# **Methodology and Procedures**

- 3.1 Introduction
- 3.2 Methodology
- 3.3 Questions of the Study
- 3.4 Population of the Study
- 3.5 Sample of the Study
- 3.6 Instrumentation
- 3.7 Validity of the Test
- 3.8 Reliability of the Test
- 3.9 Procedures of the Study and Data Collection
- 3.10 Design of the Study
- 3.11 Data Analysis
- 3.12 Variables of the Study
- **3.13 Summary**

# **Chapter Three**

# **Methodology and Procedures**

#### 3.1 Introduction:

This chapter deals with the procedures and methodology followed to implement the research attempt. The researcher introduced the population of the study, and the sample of the study, the instrumentation, and its validity and reliability. Moreover, it includes the description of data collection, procedures, and the variables of the study.

#### 3.2 Methodology:

For achieving the objectives of the study, the researcher used the experimental design which comprises two groups: the experimental group and the control group. Both groups were pre-tested, after that the experimental group was taught using multimedia, whereas the control group was taught in the traditional method. Furthermore, the researcher conducted (30) multimedia classes for the experimental group embedding observation. In addition, (5) traditional classes were also observed.

# 3.3 Questions of the Study:

This study attempted to answer the following questions:

1. What is the effect of using multimedia on enhancing students' vocabulary?

- 2. Are there any statistically significant differences at  $(\alpha=0.05)$  on enhancing students' vocabulary in the pre-test between the experimental group and the control group?
- 3. Are there any statistically significant differences at  $(\alpha=0.05)$  on enhancing students' vocabulary in the pre-test between the experimental group and the control group due to gender?
- 4. Are there any statistically significant differences at  $(\alpha=0.05)$  in using multimedia on enhancing students' vocabulary between the pre-test and the post-test of the experimental group?
- 5. Are there any statistically significant differences at  $(\alpha=0.05)$  in using multimedia on enhancing students' vocabulary between the pre-test and the post-test of the control group?
- 6. Are there any statistically significant differences at  $(\alpha=0.05)$  in using multimedia on enhancing students' vocabulary in the post-test due to gender variable?
- 7. Are there any statistically significant differences at  $(\alpha=0.05)$  in the posttest on enhancing students' vocabulary due to the interaction between gender and group variables?

# 3.4 Population of the Study:

The population of the study consisted of (777) male and female sixth graders in private school in Nablus city who were distributed on fifteen schools.

## 3.5 Sample of the Study:

The research was carried on (66) students who were chosen randomly from the sixth grade on Saint Joseph's School. The sample used as an (33) students (23 males and 10 females) who were enrolled in teaching English vocabulary using multimedia (the experimental group), and (33) students (20 males and 13 females) who were taught traditionally (the control group). Table (1) below shows the distribution of the study sample.

**Table (1): The Distribution of the Sample of the Study.** 

Group	Gender	Frequency	Percent
	Male	23	69.7
experimental	Female	10	30.3
	Total	33	100.0
	Male	20	60.6
control	Female	13	39.4
	Total	33	100.0

#### 3.6 Instrumentation:

To investigate the effect of multimedia on the sixth graders' vocabulary, the researcher developed pre-post English vocabulary tests before and after the implementation of multimedia teaching. Participants in the experimental group were taught using multimedia, while the others in the control group were taught traditionally. In addition, the researcher observed (30) classes for the experimental group and (5) classes for the control group.

#### 3.6.1 The Pre-Post Test:

With the help of proficient teachers in the field of teaching, the researcher prepared a pre-test and also an equivalent Post-test in order to measure the effect of multimedia on improving students' vocabulary. The pre-test was implemented before applying multimedia teaching, after the implementation of the experiment, the post-test was given to the students to assess the effect of multimedia on improving the sixth graders' vocabulary. The pre-post tests consisted of six types of questions which were: giving antonyms, completing the sentences, ordering the letters to make meaningful words, definitions, correcting the mistakes and finally looking at a picture and making a list of words.

#### 3.6.2 Classroom Observation:

The second tool of the study was classroom observation. The researcher taught and observed the students in the experimental group at the same time. The researcher observed (30) classes for the experimental group; every observation lasted for 40 minutes. In addition, the researcher observed (5) classes for the control group.

#### 3.7 Validity of the Test:

To assure that the content of the English vocabulary tests are adequate, the instrument was given to a jury of (7) experts in TFEL domain: three specialists at An-Najah University, two English supervisors, and two experienced teachers of English language from the Directorate of

Education in Salfit District were consulted to evaluate the validity of the instruments and their recommendations were taken into account.

The jury suggested increasing the number of the items of each question from four to five items, also they suggested adding another question about the correction of the underlined mistakes. The researcher made the necessary modifications accordingly.

### 3.8 Reliability of the Test:

In order to check the reliability degree of the vocabulary test, the reliability coefficient ( Cronbach Alpha ) was calculated to measure the internal correspondence of the test which was presented in table (2) below.

Table (2) shows the range of reliability which ranged between (0.83 - 0.88) and the total score was (0.84) which is considered to be convenient for scientific objectives.

Table (2) Cronbach Alpha Distributed by Pre-Post Test.

Description	N. of Items	Reliability
Pre-test	14	0.83
Post-test	14	0.88
Total	14	0.84

## 3.9 Procedures of the Study and Data Collection:

The following steps were followed during applying this study:

**First**, after giving the approval of the title of the study, the researcher started surveying the related literature about using educational multimedia,

then she designed English vocabulary test, and experts in the field of TFEL approved their relevance.

**Second**, permissions were taken from the intended parties to facilitate the application of the study.

**Third**, applying the pre-test to the control and experimental groups to test the students' proficiency level.

**Fourth**, treating the experimental group by using multimedia: using animations, videos, pictures with sound and written captions, slides and power point presentations, the experimental group underwent 30 lessons 6 sessions a week. Whereas, the control group was taught traditionally.

**Fifth**, the two groups sat again for the post-test and data was collected for the statistical analysis.

# 3.10 Design of the Study:

This experimental study used the pre-test post-test design out of which there were two groups one was experimental while the other was control. The statistical formula can be represented in:

The first group is the experimental which symbolized by G1 with O1 which stands for the pre-test, X stands for the treatment by multimedia and O2 stands for the post-test. While the second group is the control group which symbolized by G2 with O1 which stands for the pre-test, without X treatment and O2 stands for the post-test.

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## 3.11 Data analysis:

For analyzing the data the researcher used (SPSS) program version (17). Several statistical tests were used including: means, standard deviation, frequencies, percentages, Independent sample T-test, Paired sample T-test and Two Way ANOVA. These various testes were used to estimate students' responses on the tests.

# 3.12 Variables of the Study:

The study contained the following variables:

1. Independent Variables:

Gender variable: male & female

Group variable: control & experimental

2. Dependent Variable:

The effect of multimedia on improving students' vocabulary.

# **3.13 Summary:**

This chapter presented the method followed for applying the study, the population of the study, the sample of the study, the instrumentations: ( the pre-test and the post-test and classroom observation), the way of implementing test validity and reliability, procedures of the study, design of the study, data analysis and the variables of the study.

# **Chapter Four**

# Results

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- 4.2 Results Related to the First Question
- 4.3 Results Related to the Second Question
- 4.4 Results Related to the Third Question
- 4.5 Results Related to the Fourth Question
- 4.6 Results Related to the Fifth Question
- 4.7 Results Related to the Sixth Question
- 4.8 Results Related to the Seventh Question
- **4.9** Results Related to the Classroom Observation
- **4.10 Summary**

# **Chapter Four**

#### **Results**

#### 4.1 Introduction:

This chapter presents the results related to the questions of the study. It also presents data analysis using the SPSS statistical program. The data collected through the tools of the study which were used to examine the impact of multimedia on improving students' English vocabulary.

# **4.2 Results of the First Question:**

# What is the effect of using multimedia on improving students' vocabulary?

To answer this question, the researcher used the average scores distributed by questions' type and group variable of the post-test. Results are shown in table (3) below.

Table (3): The Average Scores Distributed by Questions and Group Variable of the post-test

	Cor	itrol	Experimental		
Questions	Avorago	Standard	Avaraga	Standard	
	Average	Deviation	Average	Deviation	
Antonyms	4.18	1.13	4.36	0.99	
Complete	4.42	0.86	4.72	0.76	
Order	2.39	1.39	3.00	1.14	
Definition	4.75	1.60	4.78	1.76	
Correcting	2.06	1.53	2.75	1.11	
Make a list	4.69	3.82	8.48	3.41	
Total	22.51	7.37	28.10	7.01	

The results from the above table showed that the total mean of the experimental group's post-test (M=28.10) is bigger than the overall mean of the control group (M=22.51). This finding suggested that there was a favorable effect of multimedia on improving students' vocabulary learning.

## **4.3 Results of the Second Question:**

Are there any statistically significant differences at  $(\alpha=0.05)$  on improving students' vocabulary in the pre-test between the experimental group and the control group?

In order to answer this question, independent t-Test was computed to examine the equivalence between the control group and the experimental group to show the significance of the mean difference on the pre-test according to the total score due to group variable as table (4) below shows.

Table (4): The Results of Independent T-test to Identify the Mean Difference of the Pre-test Due to Group Variable.

Group	N	Mean	S.D	T	Sig.*
Control	33	19.75	8.53	1.508	0.127
Experimental	33	21.09	7.83	1.308	0.137

#### \*. The mean difference is significant at the 0.05 level.

Table (4) exposes that there are no statistically significant differences at ( $\alpha$  =0.05) level between students' scores about the effect of multimedia on improving students' English language vocabulary in the pre –test due to group variable. The significant value was (0.137) which is more than

(0.05). This result indicates the equivalence between the two groups which is very important before applying multimedia.

## 4.4 Results of the Third Question:

Are there any statistically significant differences at  $(\alpha=0.05)$  on improving students' vocabulary in the pre-test between the experimental group and the control group due to gender?

To answer this question, the researcher used independent t-Test to investigate the significance of mean differences for males and females of the pre-test for both the control group and the experimental group. Table (5) below shows the results.

Table (5): Independent T-test for mean differences for both the control group and the experimental group due to gender.

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	Average	Gender	N	Mean	S.D	t	Sig.*
	scores	Gender	11	Wiedii	5.5	·	Dig.
	Pre-test total	Male	43	20.18	9.29	-	0.322
	average	Female	23	22.30	5.58	0.998	0.322

#### \*. The mean difference is significant at the 0.05 level.

Table (5) above illustrates that there are no statistically significant differences at ( $\alpha$ =0.05) in English vocabulary level in the pre-test of both the control and the experimental groups due to gender. This result indicates the equivalence between male and female students' in the two groups.

### 4.5 Results of the Fourth Question:

Are there any statistical significant differences at  $(\alpha=0.05)$  in using multimedia on improving students' vocabulary according to the pretest and the post-test of the experimental group?

In order to answer this question, (Paired sample T-test) was calculated to find out the significant differences in the influence of multimedia on improving the sixth graders' English vocabulary between the pre-test and the post-test of the experimental group. The results are illustrated in table (6) below.

Table (6): Paired Sample T-test of the Students' Grades Mean on the Pre-test and the Post-test of the Experimental Group according to

**Questions' Types and Total Scores.** 

Questions Types and Total Scores.							
Questions' type	Test	Mean	S.D	d.f	T	Sig.* (2- tailed)	
Antonyma	Pre-test	4.00	1.47	32	-1.979	0.056	
Antonyms	Post-test	4.36	0.99	32	-1.979	0.030	
Complete	Pre-test	4.21	1.24	32	-3.550	*0.000	
Complete	Post-test	4.72	0.76	32	-3.330	*0.000	
Order	Pre-test	2.66	1.59	22	-1.361	0.183	
Order	Post-test	3.00	1.14	32		0.165	
Definitions	Pre-test	4.12	1.83	22	-3.084	*0.004	
<b>Definitions</b>	Post-test	4.78	1.76	32			
Mistakes	Pre-test	2.87	1.31	32	0.404	0.625	
correction	Post-test	2.75	1.11	32	0.494	0.023	
Moka a ligt	Pre-test	4.27	2.03	22	-	*0.000	
Make a list	Post-test	8.48	3.41	32	10.770	*0.000	
Total gaares	Pre-test	21.09	7.83	32	7.090	*0.000	
Total scores	Post-test	28.10	7.01	32	-7.980	*0.000	

#### \*. The mean difference is significant at the 0.05 level.

Table (6) above clarifies that there are statistically significant differences at ( $\alpha$  =0.05) level in the influence of using multimedia on improving students' English vocabulary between the pre –test and post- test of the experimental group in favor of the post test. The significant level is (0.000) which is lower than (0.05). Also, there are statistical significant differences at ( $\alpha$  =0.05) level in the influence of using multimedia on improving students' English language vocabulary between the pre –test and post- test of the experimental group in questions (2, 4 and 6) in favor of the post test. The significance levels are respectively (0.001, 0.004 and 0.000) which are less than (0.05).

# **4.6 Results of the Fifth Question:**

Are there any statistically significant differences at  $(\alpha=0.05)$  in using multimedia on improving students' vocabulary between the pre-test and the post-test of the control group?

To figure out the significant differences in the influence of multimedia on improving the sixth graders' English vocabulary between the pre-test and the post-test of the control group. The results are illustrated in table (7) below.

Table (7): Paired Sample T-test of the Students' Grades Mean on the Pre-test and the Post-test of the Control Group according to Questions' Types and Total Scores.

Questions' type	Test	Mean	S.D	d.f	T	Sig.* (2- tailed)
annagitag	Pre-test	3.45	1.45	32	-2.601	0.054
opposites	Post-test	3.50	1.13	32	-2.001	0.034
aamulata	Pre-test	3.75	1.50	22	-3.084	*0.004
complete	Post-test	4.42	0.86	32	-3.064	*0.004
andan	Pre-test	2.24	1.60	32	-0.478	0.636
order	Post-test	2.39	1.39	32	-0.478	0.030
Definitions	Pre-test	2.93	1.96	32	-4.658	*0.040
Deminions	Post-test	3.75	1.60	32		*0.040
Mistakes	Pre-test	2.51	1.46	32	1.591	0.121
correction	Post-test	2.06	1.53	32	1.391	0.121
Molzo o ligt	Pre-test	4.69	2.40	32	0.001	0.006
Make a list	Post-test	4.69	3.82	32	0.001	0.996
Total scores	Pre-test	19.75	8.53	22	2.042	*0.059
Total scores	Post-test	22.51	7.37	32	2.042	*0.039

#### \*. The mean difference is significant at the 0.05 level.

Table (7) shows that there are no statistical significant differences at  $(\alpha = 0.05)$  level of the control according to the overall average scores, the

significant level is (0.059) which is more than (0.05). Whereas, there are statistical significant differences at  $(\alpha = 0.05)$  level between the pre –test and post- test of the control group in questions (1 and 4) in favor of the post test. The significance levels are respectively (0.004 and 0.040) which are less than (0.05).

# 4.7 Results of the Sixth Question:

Are there any statistically significant differences at  $(\alpha=0.05)$  in using multimedia on improving students' vocabulary in the post-test due to gender variable?

For answering this question, the researcher used independent T-test to identify the significance differences between means in English vocabulary level in the post-test for both the control group and the experimental group due to gender variable. Table (8) below shows the results.

Table (8): The Results of the Independent T-test that Identify the Mean Differences for Both the Control Group and the Experimental Group of the Post-test Due to Gender Variable.

Average scores	Gender	N	Mean	S.D	Т	Sig.*
Dogt togt	Male	43	6.62	3.94	0.100	0.921
Post-test	Female	23	6.52	4.39	0.100	0.921

#### \*. The mean difference is significant at the 0.05 level.

Table (8) above illustrates that there are no statistical significant differences at ( $\alpha$  =0.05) level in students' scores under the influence of

multimedia on improving the students' English language vocabulary in the post –test due to the variable of gender for both the control group and the experimental group. The significant value was (0.921) which is more than (0.05).

## 4.8 Results of the Seventh Question:

Are there any statistically significant differences at  $(\alpha=0.05)$  in the post-test on improving students' vocabulary due to the interaction between gender and group variables?

For answering this question, the researcher used the Univariate test (Two way ANOVA) to measure the significance of the mean differences in the post-test according to group variable and gender variable and the interaction between group and gender variables.

Table (9): The Results of Two Way ANOVA Test According to Group, Gender and the Interaction between Group and Gender.

Source	Sum of Squares	df	Mean Square	F	Sig.
Group	193.205	1	193.205	14.330	0.000*
Gender	0.824	1	0.824	0.061	0.806
Group * Gender	6.149	1	6.149	0.456	0.502
Error	835.936	62			
Total	3947.00	66			

#### \*. The mean difference is significant at the 0.05 level.

Table (9) shows that there are no statistical significant differences at  $(\alpha = 0.05)$  level in students' scores under the influence of multimedia on

improving students' English language vocabulary in the post –test due to interaction between the variables of gender and group. The significance value was (0.502) which is more than (0.05).

Also, there are no statistical significant differences at ( $\alpha$  =0.05) level in students scores under the influence of multimedia on improving students' English language vocabulary in the post –test due to the variables of gender. On the other hand, there are statistical significant differences at the same level due to the variable of group.

# 4.9 Results Related to the Second Tool of the Study (Classroom Observation):

The second tool of the study is the observation. It is a kind of qualitative research method which provides support for the theoretical data. Classroom observation was carried out by noticing students' attitudes and reflections towards the use of multimedia.

To estimate the influence of using multimedia in the classroom, the researcher observed five English multimedia classes, and wrote down notes about students' engagement in the multimedia environment.

The researcher noticed that during multimedia presentations, the students were more motivated and interested in the presented material.

The researcher also viewed a significant increase in students' attention, engagement and participation when a story video was introduced, even passive students showed interest in watching the video interestingly.

The researcher identified through the observation that using multimedia has a favorable effect on students' learning. It is a very interesting way of teaching, easily catch students' attention and arouse their curiosity for learning.

# **4.10 Summary:**

Chapter four presented the results related to the tools of the study (English vocabulary test and classroom observation). It also showed tables to illustrate the results of the study questions which assured that there is an obvious influence of using multimedia on improving the sixth graders' English language vocabulary.

# **Chapter Five**

# Discussion of the Results, Conclusion and Recommendations

- 5.1 Introduction
- 5.2 Discussion of the Results of the First Question
- 5.3 Discussion of the Results of the Second Question
- 5.4 Discussion of the Results of the Third Question
- 5.5 Discussion of the Results of the Fourth Question
- 5.6 Discussion of the Results of the Fifth Question
- 5.7 Discussion of the Results of the Sixth Question
- 5.8 Discussion of the Results of the Seventh Question
- 5.9 Discussion of the Results of the Classroom Observation
- 5.10 Conclusion
- **5.11 Recommendations**
- **5.12 Summary**

# **Chapter Five**

# Discussion of the Results, Conclusion and Recommendations

#### **5.1 Introduction:**

This chapter comprises three parts. The first one is a discussion of the results of the study. The second one presents the conclusion. Finally, the third suggests recommendations in the light of the study results.

# **5.2 Discussion of the Results of the First Question:**

What is the effect of using multimedia on improving students' vocabulary?

Results on this question showed that there was a positive effect of using multimedia on improving students' vocabulary learning. The total average of the pre-test of the experimental group was (21.09) and the total average of the pre-test for the control group was (19.75) which guaranteed the equivalence in performance between the two groups before using multimedia. On the other hand, the total average of the post-test for the experimental group was (28.10) while, the total average of the post test for the control group was (22.51) which indicates high influence of multimedia on improving students' vocabulary.

This means that using multimedia has improved students' vocabulary. These results supported the previous findings mentioned in the literature review which suggest that multimedia has a positive influence on students' vocabulary such as Pahlavanpoorfard & Soori (2014); Sydorenko

(2010) and Neri et al (2008) who suggest that multimedia improve students' academic achievement in vocabulary learning. They are also in consistent with Khyibani et al (2014); Mayer (2005) and AL-Seghaier (2001) who indicated that using multimedia is more effective in acquiring and learning new vocabulary than traditional teaching.

The results of the present study indicated that using new ways of teaching like using multimedia leads to better learning results than using the traditional way of teaching, which is in harmony with Jones (2004) study results which emphasized that the use of pictorial in combination with written annotation leads to better results than the use of pictorial annotation only.

This was in line with some of the previous findings such as Kost et al (1999) research on the effect of pictorial and textual glosses on incidental vocabulary growth for foreign language learners, and Plass et all (1998) research on the effect of different gloss types in a multimedia context. The results of these studies revealed that multimedia was an effective strategy which enhances learners' vocabulary.

The results of this study are in agreement with Cabera (2013); Atawaim (2000); Arnheim (1994); Asoodeh (1993) and Lyman-Hager et al (1993) who indicated that using multimedia could increase students' understanding of abstract concepts and it could improve students' information retention.

On the other hand, the results of this studr are in contrast with Zarei & Gilanian (2013); Algerioy (1999) and Sun & Dong (2004) who stated

that using multimedia could not enhance students' achievements, and students' performance.

#### **5.3** Discussion of the Results of the Second Question:

Are there any statistically significant differences at  $(\alpha=0.05)$  on improving students' vocabulary in the pre-test between the experimental group and the control group?

Results proved that there are no statistical differences at  $(\alpha$ =0.05) in the pre-test between the study groups, the finding showed that participants in the experimental group experienced higher scores in vocabulary before applying multimedia (M=21.09 ,SD=7.83 ) than participants in the control group (M=19.75, SD=8.53 ). But this increase is not statistically significant.

These results proved that each of the control group and the experimental group were similar in their vocabulary knowledge before applying the treatment with multimedia.

# **5.4 Discussion of the Results of the Third Question:**

Are there any statistically significant differences at  $(\alpha=0.05)$  on improving students' vocabulary in the pre-test between the experimental group and the control group due to gender?

Findings of this question indicated that there are no statistical significant differences at  $(\alpha=0.05)$  in using multimedia on improving

students' vocabulary according to the total mean scores of the pre-test for both groups due to gender variable.

The outcomes of the independent t-Test illustrated that the overall average of males was (20.18) and the total mean for females was (22.30) which guaranteed the equivalence between males and females before applying multimedia.

### 5.5 Discussion of the Results of the Forth Question:

Are there any statistically significant differences at  $(\alpha=0.05)$  in using multimedia on improving students' vocabulary in the pre-test and the post-test of the experimental group?

findings of this question indicated that there are statistical significant differences at ( $\alpha$ =0.05) in the influence of using multimedia on improving students' vocabulary according to complete the sentences question, match the word with its definition question, make a list of words question, and the total average scores.

According to the questions of the test, five questions showed improvement in students' performance three of them have significant differences: The first question, complete the sentences question the mean of the pre-test was (4.21) and the mean of the post-test was (4.72). the second question, match the word with its definition the mean of the pre-test was (4.12) and the mean of the post-test was (4.78). The third question, make a list of words the mean of the pre-test was (4.27) and the mean of the post-test was (8.48) which received the highest improvement.

On the other hand, there were two questions received little improvement but it was not statistically significant, they are match the words with their opposites question the mean of the pre-test was (4.00) and the mean of the post-test was (4.36), and order the letters to form meaningful words question the mean of the pre-test was (2.66) and the mean of the post-test was (3.00). This result could be attributed to students' random guessing in answering these two questions.

One question did not receive any improvement which was mistakes correction question the mean of the pre-test was (2.87) and the mean of the post-test was (2.75) this could be attributed to the difficulty of teaching mistakes correction through multimedia.

According to the total average score, results showed that the post-test mean was (M= 28.10) which is bigger than the mean of the pre-test (M=21.09). This shows that there are a positive influence of using multimedia on improving students' vocabulary.

These results are in harmony with Gilakjani (2012). Both researchers showed that multimedia increase learners' interest, improve learners' understanding, and enhance memorizing. In the area of combining image with text, several researchers agreed that this type of blending is beneficial in acquiring more words and in improving students' performance more than learners who taught verbally Yoshii (2001); Al-Seghayer (2001); Kost et al (1999) and Plass et al (1998).

The results of this study are also in line with Olibe (2010) who stated that Computer Assisted Language Learning has a positive effect on

students' achievement. It is also in agreement with Ilhan & Uroc (2016); Ercan (2014); Pudsadee (2013); Mandernach (2009) and Issa et al (1999) who emphasized the efficiency of multimedia strategy instruction on enhancing learning outcomes and increasing students' academic achievement.

Findings of the current study showed that multimedia has a functional effect on improving students' vocabulary which is in consistent with Silverman & Hines (2009); Akkoyunlu and Yilmaz (2005) and Yoshii & Flaitz (2002).

## **5.6 Discussion of the Results of the Fifth Question:**

Are there any statistically significant differences at  $(\alpha=0.05)$  in using multimedia on improving students' vocabulary between the pre-test and the post-test of the control group?

Results showed that there are no statistical significant differences at  $(\alpha=0.05)$  in the influence of multimedia on enhancing learners' vocabulary according to the total average scores.

Outcomes showed that there were a little improvement between the pre-test and the post-test of the control group, the mean of the post-test was (22.51), while the mean of the pre-test was (19.75). Although individuals experienced higher vocabulary scores in the post-test following traditional treatment than in pre-test, though this improvement was not statistically significant.

This result supports researchers' claims, that the use of multimedia leads to better results than traditional teaching style such as Yeh & Wang (2003); Asoodeh (1993) and Underwood (1989) who stated that using a mixture of images and texts enhances learners' memorizing ability and as a result words can be better remembered.

## **5.7** Discussion of the Results of the Sixth Question:

Are there any statistically significant differences at  $(\alpha=0.05)$  in using multimedia on improving students' vocabulary in the post-test due to gender variable?

Results of this question showed that there are no statistical significant differences at  $(\alpha=0.05)$  in using multimedia on improving students' vocabulary in the post-test due to gender according to the overall average scores.

Results showed that the mean for males' scores was (6.62) and the mean for females' was (6.52). This result indicated that there are no differences between males' and females' under the influence of using multimedia. This means that both males and females could benefit from using multimedia in improving their vocabulary at the same level.

This result is in contrast with Ercan (2014) who found out that female students benefit from multimedia learning more than male students.

#### 5.8 Discussion of the Results of the Seventh Question:

Are there any statistically significant differences at  $(\alpha=0.05)$  in the post-test on improving students' vocabulary due to the interaction between gender and group variables?

Results showed that there are no statistical significant differences at  $(\alpha=0.05)$  in using multimedia on improving students' vocabulary in the post-test due to the interaction between gender and group variables.

This means that there is no influence of the interaction between gender and group variables on improving students' vocabulary level. Therefore, students of both genders could improve their vocabulary in both groups.

#### 5.9 Discussion of the Results of the Classroom Observation:

The results of the classroom observation showed that students were more interested and motivated towards learning, and they showed strong engagement with the presentations. This result is consistent with several studies like Lu's (2010); Alfahad's (2009); Holizinger's et al (2009) and Said's (2007) which emphasized the role of multimedia in changing learning and teaching into more dynamic process and this changes the learners from passive into active participants which leads to more motivated and encouraged learners to learn effectively. Furthermore, these results are in contrast with Danan (2004) and Baltova (1999) who claimed that using multimedia in not useful for second language learners.

#### 5.10 Conclusion

This study examined the influence of using modern ways of teaching especially multimedia on improving students' English vocabulary in private schools in Nablus city. The results of the study shed some light on

using multimedia in the academic field for teaching English vocabulary. The results proved that the participants in the experimental group who were treated with multimedia promoted their vocabulary more than the participants of the control group who did not receive multimedia learning and were taught following the classical method. In general, the results showed efficient and evident influence of multimedia on improving learners' vocabulary especially vocabulary retention which scored the highest average in favor of the experimental group.

The results of the study also, suggested that the use of multimedia was more effective in learning unknown vocabulary than the traditional method. As emphasized with classroom observation, the learners were more enthusiastic in the classroom, also they were more interested and motivated to learn new vocabulary. The researchers' observation also revealed that multimedia could motivate learners and arouse their curiosity towards learning, and this could lead to better learning results.

#### **5.11 Recommendations:**

The researcher recommended the following:

#### **Recommendations for the teachers:**

- 1- Try as much as you can to integrate new technological tools like multimedia in the teaching process since it enhances students' comprehension as well as motivation for learning.
- 2- Be aware to give the students a preface about what they are going to see before applying multimedia.

- 3- Make sure of the quality of the presented material, the images and sounds should be clear as much as possible.
- 4- Make sure that the chosen material is suitable for the educational goals and the age of the learners.
- 5- Take into consideration the individual differences between learners when applying multimedia techniques.

#### Third, for the Ministry of Education:

- 1- For the importance of using modern technology into the educational process, the researcher recommended the Ministry of Education to arrange guidance programs for teachers on using multimedia tools.
- 2- Providing schools with the needed equipments to facilitate integrating multimedia into the learning-teaching process.

## Fourth, recommendations for further studies:

- 1- Investigating the influence of multimedia on improving students' speaking skills.
- 2- Conducting a study to evaluate the barriers for using multimedia in the classroom.

#### **5.12 Summary:**

This chapter presented the discussion of the results in the light of the study questions and classroom observation. It also included some suggestions and recommendations for learners, teachers, the Ministry of Education and further studies.

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# **Appendixes**

## 74 **Appendix A**

# The pre-test

	H	English vocabi	ulary test		
Name:				Date:4/3/2017	
Grade: Sixth				Time: 1 hour	
A. Match the wor	rds with their o	pposite meaning			
			-1	auty agree	$\lambda$
1 neace		>	war fearfi	ıl happiness ~	$\rightarrow$
2. brave	7	_			
3. ugliness	3	- 94			
5. sadness					
B. Complete the	sentences with			,	
chief	money	months	wonderful	above	wait
	welve				
			e since the sprin	ng.	
3. You need_		to buy things.			
		for a taxi for hal			
5. Our holiday	y in London wa	IS	<b>_</b> •		
C. Order the anag	grams to make r	neaningful wor	ls.		
	A VA			R	
arirwor	tmsrc	)	etgmeni	worar	

D. Match the following words with their definitions .Write the litters.	
☐ 1.horror         ☐ 2.bury         ☐ 3.gentle         ☐ 4.neighbour         ☐ 5.spread         ☐ 6.part         ☐ 6.p	
<ul> <li>a. calm and quiet.</li> <li>b. A character in a play.</li> <li>c. fear and dislike.</li> <li>d. To tell a lot of people.</li> <li>e. a person who lives next to you or near you.</li> <li>f. to put into the ground and cover.</li> </ul>	
<ol> <li>E. Correct the underlined mistakes.</li> <li>We stoped to look at the woods.</li> <li>The firemen were heros.</li> <li>She rites a letter for her friend.</li> <li>Amal enjoys swimming in the see .</li> </ol>	
F. Look at the pictures. Make a list of as many as words you can.	

## 76 **Appendix B**

# The post-test

	Er	nglish vocabu	lary test		
Name:	-			Date:19/4/2017	
Grade: Sixth				Time: 1 hour	
<ol> <li>argue</li> <li>awful</li> <li>harm</li> </ol>	ds with their opp		agree front above	protect hate e wonderful	
B. Complete the	sentences with w	ords from the b	OX.		
son	colours	since	powerful	hair	nothing
<ul><li>2. The chief of</li><li>3. Ben opened</li><li>4. The girls have</li></ul>	even	has snakes in hi re was tennis	s inside it.	·k.	
C. Order the anag	grams to make m	eaningful word	S .		0
	0				
hreinoubsg	dns	esas	cifeh	powena	S

D. Match the following words with their definitions .Write the letters.
1.paddle 2.cause 3.fear
4.harm 5.tribe 6.peace
<ul> <li>a. To hurt someone.</li> <li>b. The feeling of being afraid.</li> <li>c. A time when there is no war.</li> <li>d. A large group of people who live together.</li> <li>e. The reason of something.</li> <li>f. To move a canoe through the water using a piece of woods.</li> </ul>
<ul> <li>E. Correct the underlined mistakes.</li> <li>1. Hurry up! The plain is taking off.</li> <li>2. We want to look at the ponys.</li> <li>3. They saved the lifes of the people.</li> <li>4. The acter received a prize.</li> <li>F. Look at the pictures. Make a list of as many as words you can.</li> </ul>

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### **Appendix C**

#### Samples of the pre-test for the experimental group

23 English vocabulary test Name: Salma Date:4/3/2017 Grade: Sixth Time: 1 hour 4 A. Match the words with their opposite meanings. beauty agree fearful happiness 3. ugliness navee 4. hate LOVE 5. sadness 5 B. Complete the sentences with words from the box. months 1. There are twelve MOUNT in a year. 2. The has been living in a cave since the spring. 3. You need \_\_\_\_\_\_ to buy things. 4. Mrs. Bond wat for a taxi for half an hour.
5. Our holiday in London was well devices. 4 C. Order the anagrams to make meaningful words. tmsro etgmeni worar wallior

3.gentle

B 6.part

 $\ensuremath{\checkmark}$  D. Match the following words with their definitions .Write the litters.

2.bury

5.spread

1.horror
4.neighbour

a. calm and quiet.	
b. A character in a play.	
c. fear and dislike.	
d. To tell a lot of people.	
e. a person who lives next to you or near you.	
f. to put into the ground and cover.	
2	
E. Correct the underlined mistakes.	
1. We stoped to look at the woods. ≤ to Qed	
2. The firemen were heros. Heroes	
3. She <u>rites</u> a letter for her friend. with	
4. Amal enjoys swimming in the see < @	
3 F. Look at the pictures. Make a list of as many as words you can.	
men's/water/ water/men/hox	

# Appendix D

# Samples of the pre-test for the control group

			21	
	English voca	abulary test		
Name: Karma	and al half	em	Date:4/3/2017	
Grade: Sixth			Time: 1 hour	
3 A. Match the words	s with their opposite meani	ings.	~	
		loyé be	eauty agree	
D. peace	bargo	war fearf	ul happiness -	
2. brave	Aearful agric			
3. ugliness _ 4. hate /o/	war			
5. sadness_	happiness	0		
5 B. Complete the ser	ntences with words from the			
5 B. Complete the ser chief	ntences with words from the money months	ne box. wonderful	above	wait
chief  1. There are two	money months elve <u>months</u> in a yea	wonderful r.		wait
1. There are two	money months  elve <u>months</u> in a yea  has been living in a	wonderful r. cave since the spri		wait
1. There are two 2. The	money months  elve months in a yea has been living in a commoney to buy things  Walt for a taxi for the	wonderful r. cave since the springs. nalf an hour.		wait
1. There are two 2. The	money months  elve <u>months</u> in a yea  has been living in a composite to buy things	wonderful r. cave since the springs. nalf an hour.		wait
1. There are two 2. The	money months  elve months in a yea has been living in a commoney to buy things  Walt for a taxi for the	wonderful r. cave since the springs. nalf an hour.		wait
1. There are two 2. The	money months  elve	wonderful r. cave since the springs. nalf an hour.		wait
1. There are two 2. The	money months  elve	wonderful r. cave since the springs. nalf an hour.		wait
1. There are two 2. The	money months  elve	wonderful r. cave since the springs. nalf an hour.		wait
1. There are two 2. The	money months  elve	wonderful r. cave since the springs. nalf an hour.		wait

	1	2
INF	1/	)
416	11	/

heroes

	1610	Viciou	
2 D. Match the follow	wing words with th	neir definitions .Write the litt	ers.
1.horror	2.bury	3.gentle	
4.neighbour	5.spread	6.part	
	in a play. ike.		

- U E. Correct the underlined mistakes.
  - 1. We stoped to look at the woods.
  - 2. The firemen were heros. heros.
  - 3. She <u>rites</u> a letter for her friend.
  - 4. Amal enjoys swimming in the see . 500
- 5 F. Look at the pictures. Make a list of as many as words you can.



#### 82 **Appendix E**

## Samples of the post-test for the experimental group

		34		
	English voc	abulary test		
Name: HAMZe Shakks	LIV.		Date:19/4/2017	<u> </u>
Grade: Sixth		-	Γime: 1 hour	
A. Match the words w	ith their opposite mean		protect hate	
1. back <u>Fre</u>		front above	e wonderful	
2. argue 1900 3. awful	ect			
	ences with words from	the box.	háir	nothing
2. The chief of the	in a rate Onondaga has snakes	in his half.		
4. The girls have b	box but there was how been playing tenniss ere very _ pour ful	two o'cloc	k.	
C. Order the anagram	s to make meaningful	words .	* 1	
4				
hreinoubsg	dnsesas	cifeh	powena	as

sadness

(b/ef

heighbours

6 D.	Match the following words with their definitions . Write the letters.
H	1.paddle 2.cause 6 3.fear
0	4.harm
	<ul> <li>a. To hurt someone.</li> <li>b. The feeling of being afraid.</li> <li>c. A time when there is no war.</li> <li>d. A large group of people who live together.</li> <li>e. The reason of something.</li> <li>f. To move a canoe through the water using a piece of woods.</li> </ul>
<b>Ч</b> Е.	Correct the underlined mistakes.  1. Hurry up! The plain is taking off.  2. We want to look at the ponys. Pontes  3. They saved the lifes of the people. Lives  4. The acter received a prize.
10 F.	Look at the pictures. Make a list of as many as words you can.
Li	9h + animoc/Rock I mountain of care tree sky Fire/ warrior/ Clands.

# **Appendix F**

# Samples of the post-test of the control group

	English vo	cabulary test		
Name: Selena Han	Me		Date:19/4/2017	
Grade: Sixth			Time: 1 hour	
3 A. Match the words w	vith their opposite mea	nings.	protect hade	
		front abov	e wonderful	< )
1. back from	+		, 	
2. argue agr 3. awful word	ee			
4. harm Lat	erful_			
5. below pro				
		8 10		
	ences with words from		hair	nothing
son	colours since	powerful	Hair	Hodying
1. There are sever	Colours in ar	ainbow.		
	e Onondaga has snake			4
	box but there was		ole.	
	been playing tennis _s ere very _powerful		UK.	
5. The wantons w	cre very poster far	•		
4 C. Order the anagram	s to make meaningful	words.		
			*******	
	( O O			
hreinoubsg	dnsesas	cifeh	powenz	ıs
neighbours	Sarl ness	chief	Weapo	ns

6 D. Match the following words with their definitions. Write the letters.
1.paddle 2.cause 5 3.fear
4.harm 6.peace
<ul> <li>A. To hurt someone.</li> <li>b. The feeling of being afraid.</li> <li>c. A time when there is no war.</li> <li>d. A large group of people who live together.</li> <li>c. The reason of something.</li> <li>f. To move a canoe through the water using a piece of woods.</li> </ul>
<ul> <li>4 E. Correct the underlined mistakes.</li> <li>1. Hurry up! The plain is taking off.</li> <li>2. We want to look at the ponys.</li> <li>3. They saved the lifes of the people.</li> <li>4. The acter received a prize.</li> </ul>
5 F. Look at the pictures. Make a list of as many as words you can.
fear, warrior, an animal, bear, rocks, mouting

Appendix G

Sample of multimedia learning sessions









#### **Appendix H**

#### The validation committee (names & ranks)

Dr. Ayman Nazzal, English Departmenr, An-Najah National University.

Dr. Suzzane Arafat, English Departmenr, An-Najah National University.

Dr. Ahmed Awad, English Departmenr, An-Najah National University.

Lubna Al-Rabi, English supervisor, Salfit Directorate.

Ma'zouz Subeih, English supervisor, Salfit Directorate.

Nuha Luqman, English teacher, Salfit Directorate.

Shayma' Abdullah, English teacher, Salfit Directorate.

#### Appendix I

#### Permission from An-Najah National University to conduct the study

An-Najah **National University** Faculty of Graduate Studies



التاريخ : 2017/1/23

حضرة الدكتور عزمي بلاونه المحترم مدير التربية والتعليم انابلس

#### الموضوع: تسهيل مهمة الطالبة/ صابرين فهمي مصطفى بري، رقم تسجيل(11457823)،

#### تخصص ماجستير أساليب تدريس اللغة الانجليزية

تحية طيبة و بعد،،

يرجى من حضرتكم التكرم بتسهيل مهمة الطالبة/ صابرين فهمي مصطفى بري، ورقم تسجيلها (11457823)/ تخصص ماجستير أساليب تدريس اللغة الإنجليزية في كلية الدراسات العليا، وهي بصدد اعداد الاطروحة الخاصة بها والتي عنوانها: " أثر الوسائط المتعدة على تحسين مفردات اللغة الانجليزية لطلبة الصف السادس في المدارس الخاصة في مدينة نابلس ". يرجى من حضرتكم تسهيل مهمتها في اجراء المقابلات وجمع البيانات، شاكرين لكم حسن تعاونكم.

مع وافر الاحترام ،،،

عميد كلية الدراسات العليا

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#### Appendix J

# Permission from Directorate of Education / Nablus to conduct the study

State of Palestine
Ministry of Edu. & Higher Education

Directorate of Education - Nablus



وزارة المستسريسة والتسعليسم العالي

الرقم: من/ه كر / اكر / 400 التاريخ: 26/ / /2017 المعافق: ح 2/ 4/ 1438هـ

مضرة مدير/ة مدرسة مراهبات عامي ما اللاتور المتاله المحترم/ة

تحية طيبة وبعد،

الموضوع: الدراسة الميدانية

تهديكم مديرية التربية والتعليم أطيب تحياتها، لا مانع من السماح الباحثة (صابرين فهمي مصطفى بري) بتوزيع استمارتها بعنوان ( أثر الهسائط المتعددة على تحسين مفردات اللغة الإنجليزية نطلبة الصف السادس في المدارس الخاصة في مدينة نابلس) في مدرستكم.

مع الاحترام،،،

د. عزمي بلاونه

مدير التربية والتعليم







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# **Population of the study**

مجموع	اناث	ذكور	الصف	اسم المدرسة	الرقم
66	24.00	42.00	السادس	راهبات ماريوسف الثانوية المختلطة	1
173	0.00	173.00	السادس	الاسلامية الاساسية للبنين	2
22	4.00	18.00	السادس	المناهل الحديثة الاساسيه المختلطة	3
43	10.00	33.00	السادس	الروضة الثانوية المختلطة	4
57	0.00	57.00	السادس	اكاديمية القران الكريم الثانوية للبنين	5
21	0.00	21.00	السادس	جيل المستقبل الاساسية للبنين	6
42	9.00	33.00	السادس	البسطامي الاساسيه المختلطة	7
22	7.00	15.00	السادس	المنار الحديثة الاساسية المختلطة	8
13	5.00	8.00	السادس	الشروق الاساسية المختلطة	9
22	4.00	18.00	السادس	الانجليزية الحديثة الاساسية المختلطة	10
59	24.00	35.00	السادس	مدارس بكالوريا الرواد الثانوية المختلطة	· 11
35	7.00	28.00	السادس	ايثار النموذجية الاساسية المختلطة	12
20	20.00	0.00	السادس	الاسلامية الاساسية للبنات	13
170	170.00	0.00	السادس	طلائع الامل الثانوية الجديدة المختلطة	14
12	2.00	10.00	السادس	المدرسة الاكاديمية الامريكية	15
777		***************************************		المجموع	

جامعة النجاح الوطنية كلية الدراسات العليا

# أثر الوسائط المتعددة على تحسين مفردات اللغة الانجليزية لطلبة الصف السادس في المدارس الخاصة في مدينة نابلس

إعداد صابرين فهمي مصطفى بري

> إشراف د. أحمد عوض د. سوزان عرفات

قدمت هذه الأطروحة استكمالاً لمتطلبات الحصول على درجة الماجستير في أساليب تدريس اللغة الانجليزية بكلية الدراسات العليا في جامعة النجاح الوطنية في نابلس، فلسطين.

أثر الوسائط المتعددة على تحسين مفردات اللغة الانجليزية لطلبة الصف السادس في المدارس الخاصة في مدينة نابلس

إعداد

صابرين فهمي مصطفى بري إشراف

د. أحمد عوض

د. سوزان عرفات

#### الملخص

هدفت هذه الدراسة لمناقشة أثر استخدام الوسائط المتعددة في تحسين مفردات اللغة الانجليزية لدى طلبة الصف السادس في المدارس الخاصة في مدينة نابلس ، كما أنها تفحصت أثر متغيرات الجنس و المجموعة على أداء هؤلاء الطلبة.

من أجل تحقيق هذه الاهداف قامت الباحثة بتصميم اختبار لمفردات اللغة الانجليزية و تم تطبيقه على 66 طالب من طلبة الصف السادس مقسمين على مجموعتين 33 طالب في كل مجموعة في مدرسة راهبات مار يوسف الثانوية المختلطة في الفصل الثاني من العام الدراسي 2016-2017 .

قدمت الباحثة الاختبار القبلي لجميع الطلبة في المجموعتين لتحديد مستوى الطلبة و اختبارا بعدياً لمعرفة أثر استخدام الوسائط المتعددة في تحسن مفردات اللغة الانجليزية لدى الطلبة. كما و قامت الباحثة بتطبيق استراتيجية التعلم باستخدام الوسائط المتعددة على طلبة المجموعة التجريبية لقياس أثر هذه الاستراتيجية اضافة إلى ذلك ، أجرت الباحثة مشاهدات صفية لصفوف تستخدم الوسائط المتعددة و أخرى لصفوف تتبع الطريقة التقليدية.

ومن ضمن النتائج المتعلقة بالاختبار ، فقد لوحظ وجود أثر ايجابي لاستخدام الوسائط المتعددة في تحسن مفردات اللغة الانجليزية لدى طلبة الصف السادس.

في ضوء هذه النتيجة اوصت الباحثة باستخدام الوسائط المتعددة في العملية التعليمية التعلمية في المدارس . اضافى إلى ذلك ، قدمت توصيات تخص كل من المعلمين لحثهم على استخدام الوسائط المتعددة في العملية التعليمية ، و لوزارة التربية و التعليم لتزويد المدارس بالمعدات و الأدوات اللازمة من أجل تسهيل استخدام الوسائط المتعددة .