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إقرار

أنا الموقع أدناه مقدم الرسالة التي تحمل العنوان:

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**The Effectiveness of Using Puzzles in Developing Palestinian Tenth Graders'
Vocabulary Achievement , Retention and Attitudes Towards English**

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Curriculum & English Teaching Methods Department

The Effectiveness of Using Puzzles in Developing Palestinian Tenth Graders' Vocabulary Achievement , Retention and Attitudes Towards English

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بسم الله الرحمن الرحيم

نتيجة الحكم على أطروحة ماجستير

بناءً على موافقة عمادة الدراسات العليا بالجامعة الإسلامية بغزة على تشكيل لجنة الحكم على أطروحة الباحث/ فكري كامـل خليـل الفليـت لنيـل درجـة الماجسـتير فـي كليــة *التربيـة*/ قسم مناهج وطرق تدريس وموضوعها:

The Effectiveness of Using Puzzles in Developing Palestinian Tenth Graders Vocabulary Achievement, Retention and Attitudes Towards English

وبعد المناقشة العلنية التي تمت اليوم الاثنين 17 رجب 1434هـ، الموافق 2013/05/27م الساعة الحادية عشرة ظهراً بمبنى طيبة، اجتمعت لجنة الحكم على الأطروحة والمكونة من:

د. عوض سليمان قشطة	مشرفاً ورئيساً	....
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د. محمد عطية عبد الرحيم	مناقشاً خارجياً	....

وبعد المداولة أوصت اللجنة بمنح الباحث درجة الماجستير في كلية *التربية*/قسم مناهج وطرق تدريس.

واللجنة إذ تمنحه هذه الدرجة فإنها توصيه بتقوى الله ولزوم طاعته وأن يسخر علمه في خدمة دينه ووطنه.

والله ولي التوفيق ،،،

عميد الدراسات العليا

أ.د. فؤاد علي العاجز

بِسْمِ اللهِ الرَّحْمَنِ الرَّحِيمِ

﴿قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ﴾

صَدَقَ اللهُ الْعَظِيمُ

(سورة البقرة آية 32)

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Dedication

To all those who lightened my way towards success,

To the soul of my father and to the soul of my brother, Nedal,

To my kind mother, who deserves my great love and respect for her endless sacrifice and giving,

To my beloved wife, without whose support, understanding, and encouragement I would never have been able to complete this journey,

To my precious daughter, Mera, and to my dear son, Ameer, whose smiles give me strength to continue on amidst the toughest circumstances,

To all my brothers and sisters,

To all my friends and colleagues.

Acknowledgement

The Effectiveness Of Using Puzzles in Developing Palestinian Tenth Graders' Vocabulary Achievement , Retention And Attitudes Towards English

Abstract

This study aimed to investigate the effectiveness of using puzzles in developing tenth graders vocabulary achievement. It also examined the long-term effect of the puzzles on the retention of the vocabulary. Furthermore, it measured the effect of the puzzles on the students' attitudes towards English.

The researcher purposively chose 80 tenth graders from Abdul Kareem Al-Aklook secondary School for boys in Dair Al Balah for the experiment and randomly chose two classes from the tenth grade classes. The sample of the study was 80 students, (40) students in each one. They were equally divided into two groups, experimental and control. Both groups were pre-tested to assure that they both were equivalent. Educational Puzzles were used in teaching the experimental group, while the traditional method was used with the control one in the second term of the school year (2012-2013). The experiment lasted for six weeks. After two weeks, a delayed test was administrated to the experimental group to measure retention.

The researcher prepared these tools : 1) an achievement test (Pre ,Post& delayed)
2) an attitude scale (pre & post) to determine the students' attitudes towards English language 3) teacher guide (puzzles). The results were statistically analyzed, using Statistical Package for Social Science (SPSS).

The results of the study revealed that there were significant differences in mean scores of vocabulary test in favor of the experimental group in the post application. It also showed that there were no significant differences in mean scores between the post-test and delayed test of the experimental group. It indicated that there were significant differences in the mean scores of the post attitude scale in favor of the experimental group. And this was due to the method of using puzzles in teaching vocabulary.

In the light of those findings, the study recommended the necessity of implementing puzzles in teaching English language to make better outcomes in students' achievement, retention and attitudes towards English.

ملخص البحث

أثر استخدام الألغاز في تنمية تحصيل المفردات والاحتفاظ بها والاتجاهات نحو اللغة الانجليزية لدى طلبة الصف العاشر بفلسطين

هدفت هذه الدراسة إلى التعرف على أثر استخدام الألغاز في تنمية تحصيل المفردات والاحتفاظ بها والاتجاهات نحو اللغة الانجليزية لدى طلبة الصف العاشر بفلسطين .قام الباحث باختيار مدرسة عبد الكريم العكلوك الثانوية للبنين في دير البلح بطريقة قصدية ، بينما تم اختيار صفين من الصف العاشر 80 طالبا بطريقة عشوائية ،وهذين الفصلين يمثلان بمجموعتين إحداها تجريبية تكونت من 40 طالبا، والأخرى ضابطة تكونت من 40 طالبا.وتم التأكد من تكافؤ المجموعتين.وقد استخدمت الألغاز في تدريس المجموعة التجريبية، بينما استخدمت الطريقة التقليدية في تدريس المجموعة الضابطة وذلك في الفصل الدراسي الثاني من العام (2012–2013).وقد استمرت التجربة لمدة 6 اسابيع .وبعد اسبوعين من انتهاء التجربة تم تطبيق الاختبار المرجل على المجموعة التجريبية لقياس الاحتفاظ بالمفردات.

ومن اجل جمع البيانات، قام الباحث بإعداد أدوات وهي 1) اختبار تحصيلي في المفردات قبلي –بعدي–مؤجل ، 2) مقىاس الاتجاه نحو اللغة الانجليزية،3)دليل المعلم والالغاز. تم تحليل النتائج إحصائيا مـــن خـــلال برنـــامج SPSS.وضحت النتائج ان هناك فروقا ذات دلالة احصائية لصالح المجموعة التجريبية في التطبيق البعدي لاختبار المفردات ، وأظهرت النتائج ايضا عدم وجود فروقا ذات دلالة احصائية بين الاختبار البعدي والاختبار المؤجل في المجموعة التجريبية ، وأشارت النتائج كذلك لوجود فروق ذات دلالة احصائية لصالح المجموعة التجريبية في التطبيق البعدي لمقياس الاتجاه ، ويعزى ذلك لاستخدام الالغاز في تدريس المفردات.

في ضوء هذه النتائج، أوصت الدراسة على أهمية استخدام الالغاز في تدريس اللغة الانجليزية للحصول على نتـــائج أفضل في تحصيل الطلبة في مادة اللغة الانجليزية والاحتفاظ بها ، وكذلك دور إستراتيجية الألغاز في تعزيـــز وتنميـــة اتجاهات الطلبة نحو اللغة الانجليزية .

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Abbreviations	Stands for
SPSS	Statistical Package for Social Science
ESL	English as a second language
EFL	English as a foreign language
R	Receptive
P	Productive
L1	First language
L2	Second language

Chapter I

Chapter I

Introduction

Language plays an essential role in making people communicate with each other. And as for English, it is considered one of the most important languages all over the world. It helps communicating with foreigners at home and abroad. Accordingly, The English language is widely used in science , technology , computer services, politics, commerce and internet. Hence, many countries emphasize the importance of teaching English to their citizens.

Richards (2001: 1) believes that "Second and foreign language teaching is one of the world's largest educational enterprises and millions of children and adults worldwide devote large amounts of time and efforts to the task of mastering a new language".

The English language has a special place in the world today. It has become an international language, both in the sense that it is now the native language of people from several continents and in the sense that many others have learnt to speak it as a second language (Graddol, Cheshire& Swann,1987:3). Ardeo (2003:110) states that during the last few decades there has been an increasing need to use the English language for the expression of knowledge within specific professional fields.

Keshta (2000:4) clarifies that English language through the years has become increasingly important, not only in the West but also in the Middle East and the rest of the world. It has become the common language between people from different backgrounds. In the Middle East, governments provide programs for English language in almost every school and university.

In order to achieve a successful process of learning English, one must acquire its vocabulary, grammar, pronunciation and the four skills: listening, reading, speaking, and writing.

Accurate and adequate vocabulary influences language comprehension more than grammatical correctness in effective communication. In this concern, Wilkins(1972:111) emphasizes that "Without grammar very little can be conveyed, without

vocabulary nothing can be conveyed". This clarifies the importance and the essential role of vocabulary in learning a foreign language .

Vocabulary can be a key factor for success, central to a language, and paramount to a language learner. In such a situation, the lexicon may be the most important component for learners (Grass & Selinker, 1994).

Nowadays, due to the same reasons, it is widely accepted that vocabulary acquisition should be part of the syllabus design. For example, Schmitt (2008:.329) believes that vocabulary is an essential part in language mastery. Similarly, Knight (1994:1) proposes that acquisition of words can be considered the most important aspect of second language acquisition.

Vocabulary has a crucial role in English language achievement. The literature mentioned that there is a great link between vocabulary and reading comprehension of EFL learners. This direct link greatly impacts academic growth and performance. (Chang, 2006 ; Glowacki, et al. 2001)

Vocabulary teaching and learning is considered one of the major challenges that faces ESL/EFL teachers and learners. Most EFL learners have difficulties in communicating with English language because of their limited number of vocabulary. In order to overcome these challenges they should use effective strategies which enhance vocabulary achievement and retention.(Al-Zahrani, 2011:2).

The ability to grasp the meaning of new words is a necessary skill to strengthen reading comprehension. This can positively impact overall academic success and can develop skills for real world applications.

There are several problems facing learning English vocabulary. These include forgetting new vocabulary because learners do not use them in their daily life since they are not surrounded by English speakers (Lin , 2002,:65 cited in Al-Zahrani 2011). This requires looking for effective methods and strategies in order to improve achievement level ,acquire vocabulary and motivate learning.

Students tend throughout learning stages to favor interesting methods which make interactive, exciting and fun learning . Puzzles are commonly used in Palestinian culture in magazines and newspapers because they may provoke thinking. Accordingly, researchers have conducted studies about puzzle based learning.

Many studies indicate the effectiveness of using puzzles in teaching different school subjects, including English language teaching and its role in developing thinking process on the part of students (Agarwal & Saha 2011;Alahmadi 2010**;**Fotovatnia & Namjoo 2013; Levine et.al; Merrick, .2010 ; Nassar2009)

Edge (2011) clarifies that puzzles have long been a favorite learning toy of kids, moms and educators. Giving children a variety of puzzles enhances their early childhood educational experience both at home and in school. Walter (2004) believes that riddles are an excellent vehicle for introducing students to poetry and poetry writing. Raizen (1999) discusses the benefits of logic puzzles in the foreign language classroom include helping students develop higher order thinking skills and repetition of words and sentence segments in a limited, well-defined context and at a frequency that in all other circumstances may be perceived as unreasonable and may generate boredom. Michalewicz (2007) believes that the main reasons behind most students' enthusiasm for the puzzle-based learning approach are: Puzzles are educational, as they illustrate many useful and powerful problem-solving rules in a very entertaining way. Puzzles are engaging and thought-provoking. Sull (2006) pointed out that puzzles that can be used as educational materials help children attain new experience by means of problem solving and they increase children's motivation to learn by way of learning by having fun. Ridout (1977) clarifies that word puzzles can be useful in FL teaching because they provide motivation in learning.

A variety of techniques could be used in puzzles such as riddles, crosswords, anagram, picture puzzles, spot the differences, missing parts of the picture, adding parts of the picture and word arranging.

The researcher has a six year experience as an English language teacher in the governmental schools. During this period he has noticed that Palestinian students face difficulties in acquiring and learning English vocabulary. The literature on ELT paid great attention to the importance of puzzles and vocabulary. Moreover, there is no Palestinian study in the field of English language, to the best knowledge of the researcher ,that investigated the effect of puzzles on vocabulary learning.

This motivated the researcher to conduct this study which explores the effectiveness of puzzles oin developing tenth graders vocabulary achievement, retention and attitudes towards language.

2.Need for the Study

The need for this study emerged from learners' using effective strategies to develop their vocabulary knowledge that facilitates English language learning and helps them to be successful learners. Such strategies as puzzles can improve students' skills and enhance their acquisition of English vocabulary. Recent studies were carried out to show the effect of using puzzles on teaching different school subjects.

3.Statement of the problem

Due to the researcher's work, he has observed that students face big difficulties in English vocabulary achievement and retention. This difficulty might be a result of ineffective vocabulary teaching methods which affect their vocabulary achievement and retention. Thus, the students' low achievement level in vocabulary requires a serious research for alternative and effective techniques that may increase students' achievement and motivation.

The problem of the study can be stated in the following main question:

"What is the effectiveness of using puzzles in developing Palestinian tenth graders' vocabulary achievement ,retention and attitudes towards English?"

Research questions

The research sub-questions are :

1. Are there statistically significant differences at ($\alpha \leq 0.05$) in the total mean score in vocabulary achievement between the pupils who learned through puzzles(experimental group) and those who learned through the traditional method (control group) in the post test?

2. Are there statistically significant differences at ($\alpha \leq 0.05$) in the mean score in the pre and post-test of the experimental group?

3. Are there statistically significant differences at ($\alpha \leq 0.05$) in the total mean score between the post-test and delayed test of the experimental group ?

4. Are there statistically significant differences at ($\alpha \leq 0.05$) in the total mean score of the post attitude scale between the experimental and the control group?

5. Are there statistically significant differences at ($\alpha \leq 0.05$) in the total mean score between pre and post attitude scale of the experimental group ?

4.Research Hypotheses

To answer the questions of the study, the following hypotheses were tested:

1. There are no statistically significant differences at ($\alpha \leq 0.05$) in the total mean score in vocabulary achievement between the pupils who learned through puzzles(experimental group) and those who learned through the traditional method (control group) in the post test.

2. There are no statistically significant differences at ($\alpha \leq 0.05$) in the mean score in the pre and post-test of the experimental group.

3. There are no statistically significant differences at ($\alpha \leq 0.05$) in the total mean score between the post-test and delayed test of the experimental group.

4. There are no statistically significant differences at ($\alpha \leq 0.05$) in the total mean score of the post attitude scale between the experimental and the control group.

5. There are no statistically significant differences at ($\alpha \leq 0.05$) in the total mean score between pre and post attitude scale of the experimental group.

5.Purpose of the study

The study aims at achieving the following purposes:

1. Investigating the effectiveness of puzzles in developing English vocabulary.

2. Familiarizing English language teachers with basic principle of using puzzles in teaching English vocabulary.

3. Teaching English language vocabulary in an interactive and interesting way.

4. Identifying more efficient and meaningful ways in teaching English vocabulary.

5. Examining the students' attitudes towards English language as a result of using puzzles as a teaching strategy.

6.Significance of the study

This study may :

1. Help English language teachers in organizing an effective teaching-learning environment through implementing puzzles.

2. Benefit supervisors to conduct training courses for English teachers to raise their awareness of the importance of using puzzles in teaching vocabulary.

3. Benefit syllabus designers to organize and enrich English language Curriculum with activities based on puzzles.

4. Encourage researchers in doing more studies about using puzzles in developing other skills as reading, speaking and writing.

5. Provide an experimental model to show the effectiveness of puzzles in developing tenth graders English vocabulary.

7.Limitations of the study

The current study was applied in accordance with these limitations :

1. The sample of the study consisted of tenth graders in the governmental schools in the Middle-Area / Gaza.

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2. The study was carried out in the second term of the school year (2012-2013).

3. The study was limited to practice English vocabulary on the textbook "English for Palestine 10" units (6-7-8) from students book.

4. The study was limited to the effect of puzzles in vocabulary.

8.Definition of Operational Terms

8.1.Puzzles

Oxford Reference Premium defines a puzzle as " a problem having one or more specific objectives, contrived for the principal purpose of exercising one's ingenuity and/or patience".

The researcher defines puzzles as confusion situation which requires a solution and this includes riddles, crosswords, anagram, picture puzzles ,spot the difference, missing parts of the picture , adding parts of the picture and guessing games.

8.2.Vocbulary Achievement

Oxford Learner's Pocket Dictionary (1991: p.461) defines Vocabulary as " a list of words with their meanings, especially at the back of a book used for teaching a foreign language.

Saputra (2007, p.17) defines vocabulary achievement as " students' scores which taken by measuring their abilities in the following :

- students can achieve the vocabulary .

- students can apply the vocabulary that have been achieved in English."

The researcher defines vocabulary achievement as the pupils' scores which are gained in the vocabulary achievement test that measures their skills in recognizing, understanding, acquiring and applying English vocabulary.

8.3. Vocabulary Retention

The Online Free Dictionary by Farlex (2009) defines retention as " an ability to recall or recognize what has been learned or experienced."

Mohammed (2009 , p.16) defines vocabulary retention as " the ability to keep the acquired vocabulary and retrieve it after a period of time to use it in different language contexts."

The researcher adopts Mohammed's definition.

8.4.An attitude

Eagly& Chaiken (1993) defines attitude as "a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor"

The researcher adopts this definition.

Chapter II

Literature Review

Chapter II

Literature Review

According to the purpose of this study, which aimed at investigating the effectiveness of puzzles in developing tenth graders' vocabulary achievement ,retention and attitudes towards English. This chapter is divided into four sections. The first section is a theoretical framework which discuss vocabulary achievement, retention, the second section discusses puzzles, the third section is about students' attitudes towards English language and the fourth section investigates the findings of previous studies relevant to the topic of the current study.

Section I

Vocabulary

1. Definition of Vocabulary

Vocabulary is an important aspect in the learning process. It is a basic factor in learning English because it will be needed by students when they learn English skills as reading, writing, speaking, and listening. It is very important to define the term vocabulary due to its basic foundation in any language. The definition of vocabulary relates to various views about the nature and use made of vocabulary, in the Longman dictionary (1995) vocabulary is defined as all the words that someone knows, learns or uses. Hornby (2000) in Oxford Advanced Learner's Dictionary of Current English states that vocabulary is all the words that someone knows or uses, the words that are typically used when talking about a particular subject or a list of words with the explanation of their meanings in a book for learning foreign language. The Oxford Dictionary (2002) defines vocabulary as the body of words used in a particular language or in a particular sphere. Merriam-Webster Online Dictionary (2010) has three definitions of vocabulary as follows :

1- "a list or collection of words or of words and phrases usually alphabetically arranged and explained or defined."

2- " a sum or stock of words employed by a language, group, individual, or work or in a field of knowledge."

3- " a list or collection of terms or codes available for use."

Saputra (2007) gives a comprehensive definition of vocabulary and describes it as all the words that are used in a language, have meanings and consist of some parts like verbs, idioms, pronunciation, … etc. Graddol et al (1987: 93) indicate that words can be regarded as symbols. A symbol of the mental concept that we have .

From all the above definitions mentioned, it is clear that the concept of vocabulary as the most important part for learning any language. It is impossible for the learners to read, write, speak and listen to any foreign language without having enough knowledge of vocabulary. Thus, the researcher defines vocabulary as a collection of words in the language, every word has its own meaning and is understood by others.

2.Knowing a Word

Words are the tools we use to think, to express ideas and feelings, and to learn about the world. Because words are the very foundation of learning, improving students' vocabulary knowledge has become an educational priority. Student word knowledge is strongly linked to academic accomplishment, because a rich vocabulary is essential to successful reading comprehension. Furthermore, the verbal sections of the high-stake standardized tests used in most states to gauge student performance are basically tests of vocabulary and reading comprehension (Johnson & Johnson, 2004).The most important question to ask in learning vocabulary is: "What is meant by knowing a new word?"

According to Fromkin et al (2010 :5) knowing a language means knowing that certain sequences of sounds signify certain concepts or meanings. When you know a language, you know words in that language, that is, which sequences of sounds are related to specific meanings and which are not. Thornbury (2002:15) mentions that knowing a word involves knowing : its form and its meaning. Harmer (2007:35) indicates that the least problematic issue of vocabulary is meaning.

According to Cairns & Redman (1986:13), to understand a word fully, therefore ,a student must know not only what it refers to , but also where the boundaries are that separate it from words of related meaning. In addition, Nichols & Rubpley (2004) state that acquiring a word is not simply dealing with its definition or getting its basic meaning from context. Instead, to acquire a word means to be able to discuss, elaborate and demonstrate the meaning of the word in different contexts.

Nation (2001:23) states that "The general principle of learning burden is that the more a word represents patterns and knowledge that learners are already familiar with, the lighter its learning burden". Laraba (2007:136) concludes that "foreign language vocabulary learning is determined by the similarities that may exist, at different levels, between the first language and the second or foreign language learnt."Analyzing word meaning is useful, but there is more involved in communication than simply adding together the meaning of individual words. Linguistic context is all- important in determining which of a number of meanings of a word is intended (Graddol et al 1987:109).

Nation (1990: 31) proposes the following list of the different kinds of knowledge that a person must master in order to know a word:

- The meaning(s) of the word
- The written form of the word
- The spoken form of the word
- The grammatical behavioral of the word
- The collocations of the word
- The register of the word
- The associations of the word
- The frequency of the word

Schmitt (2008: 348) concludes that incidental word learning from exposure to reading alone:

• is dependent on encountering a vast amount of textual input;

• does not result in the learning of many new words;

• is useful in developing orthographic and grammatical knowledge aspects of partially known vocabulary;

• results in word recognition gains that are more time-stable than gains in word recall, and, therefore

• facilitates the development of partial rather than complete word knowledge.

Nagy & Scott (2000) indicate five aspects of the concept of vocabulary knowledge. These aspects are :

1. Incrementality : it means that one's knowledge of words grows gradually and takes place in many steps.
2. Polysemy : meaning that words have more than one meaning. The more frequent a word is in the language, the more meanings it is likely to have.
3. Multidimensionality : it means that word knowledge consists of several qualitative aspects of knowledge.
4. Interrelatedness : means that the knowledge of any given word is not independent of the knowledge of other words.
5. Heterogeneity : meaning that knowing a word depends on the kind of word and the knowledge that a person already has about the word.

Lin(2002)explains three points for acquiring a word :

1. Recognizing the form of the word, i.e. its part of speech; verb, noun, adjective, adverb, or a preposition.

2. Retrieving the meaning of the word, i.e. being able to know a word's meaning and remember it.

3. Using the word appropriately in other contexts.

Nation (2001:26) indicates that knowing a word, for example, 'underdeveloped' involves:

• Being able to recognize the word when it is heard.

• Being familiar with its written form so that it is recognized when it is met in reading.

• Recognize that it is made up of parts under-, -develop-, and –ed and being able to relate these parts to its meaning.

• Knowing that underdeveloped signals a particular meaning.

• Knowing what the word means in the particular context in which it has just occurred.

• Knowing the concept behind the word which will allow understanding in a variety of contexts.

• Knowing that there are related words like overdeveloped, backward and challenged.

• Being able to recognize that underdeveloped has been used correctly in the sentence in which it occurs.

• Being able to recognize that words such as territories and areas are typical collocations with the word under/over developed.

• Knowing that underdeveloped is not an uncommon word and is not a pejorative word.

Nation (2001:27) explains that knowing a word, at the general level, involves form , meaning and use. He distinguishes between the receptive and the productive knowledge that can be summarized in the following table:

Table 1: General Aspects of Knowing a Word.
From Nation (2001:27).

Form	Spoken	R	What does the word sound like?
		P	How is the word pronounced?
	Written	R	What does the word look like?
		P	How is the word written and spelled?
	Word parts	R	What parts are recognizable in this word?

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		P	What word parts are needed to express the meaning?

Meaning	Form and meaning	R	What meaning does this word form signal?
		P	What word form can be used to express this meaning?
	Concept and referents	R	What is included in the concept?
		P	What items can the concept refer to?
	Associations	R	What other words does this make us think of?
		P	What other words could we use instead of this one?

Use	Grammatical functions	R	In what patterns does the word occur?
		P	In what pattern must we use this word?
	Collocations	R	What words or types of words occur with this one?
		P	What words or types of words must we use with this one?
	Constraints on use (register, frequency…)	R	Where, when, and how often would we expect to meet this word?
		P	Where, when, and how often can we use this word?

From the above mentioned, the researcher concludes that knowing a word includes student ability to recognize the meaning, memorize the word, and use it appropriately in different situation .

3.Vocabulary Learning and Its Importance

English language, like any other language, has different areas that students should study, such as vocabulary, reading , speaking, listening and grammar. In this study, the researcher focuses on vocabulary because of its importance to students .

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Harmer (1991:153) declares that "If language structures make up the skeleton of language, then it is vocabulary that provides the vital organs and the flesh". Carter & McCarthy (1988) state that the study of vocabulary is at the heart of language teaching and learning, in terms of the organization of syllabuses.

Richards & Renandya (2002:255) emphasis that vocabulary is a core component of language proficiency and provides much of the basis for how well learners speak, listen, read and write. Vocabulary is an important factor in all language teaching (Allen&ValetteIt,1977:149).It is very important to learn vocabulary when learning a foreign language since vocabulary plays a major role in language comprehension and production (Read, 2000). It is "central to language and of critical importance to the typical language learner" (Zimmerman, 1997:5). Educators are often faced with the challenge of how to teach vocabulary to learners comprehensively making them able to recall the words they learned when the situation calls for it (Sokmen, 1997).

Sedita (2005) indicates that vocabulary knowledge is related to academic success because learners who have large vocabulary can understand new ideas and concepts more quickly and deeply than learners with limited vocabulary . Nichols & Rupley (2004) emphasize the importance of vocabulary, stating that it is a key to reading comprehension, reading fluency, writing, and communication with others. Mastering vocabulary enables students to form sentences and communicate with others. Thus, It is impossible for the learners to read, write, listen and speak a foreign language without having enough knowledge of vocabulary. Wilkins (1972) in his advice also states that "if you spend most of your time studying grammar, your English will not improve very much, you will see most improvement if you learn more words and expressions. You can say very little with grammar, but you can say almost anything with words".Krashen (1989:440) makes a pertinent remark about the importance of vocabulary: L2 language learners realise that knowing numbers of words is necessary for mastering a target language. Besides, they have dictionaries with them, not grammatical references. In addition, they often report the major problem is lacking vocabulary.

Folse (2008) mentions that English language learners need a continuous knowledge of vocabulary in order to improve comprehension and production in the

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foreign language. He added that while a basic level of vocabulary will allow learners to communicate some ideas to a certain degree, better communication can be happened when learners have acquired more vocabulary.

Richards & Renandya (2002:255) clarify that without an extensive vocabulary and strategies for acquiring new vocabulary, learners often achieve less than their potential and may be discouraged from making use of language learning.
Bromley (2002 :7) points out that there are many benefits from learning vocabulary in all grade levels. First, it contributes in comprehension with proportion of 80 percent because vocabulary knowledge makes it easier for the learners to infer the meanings of unfamiliar vocabulary. Second, it improves the achievement because learners with large vocabulary score higher in achievement test than learners with small vocabulary. Third, it enhances communications because having more vocabulary help learners to speak and write well and to understand what is heard and written easily and deeply. Fourth, it shapes thinking because vocabulary are tools for analyzing, inferring, evaluating, and reasoning either the written work or oral one. In addition, Lin (2002) mentions that vocabulary knowledge should be the first when one wants to learn a foreign language. Students' knowledge of word meanings is widely agreed upon as a significant factor in their success in reading comprehension and also it influences successful Writing , speaking and listening. It plays a tremendously important role .Thus, vocabulary learning is very important to success and to improve learning outcomes.

From the above mentioned discussion on vocabulary learning and its importance , the researcher concludes the following

- vocabulary is very important in mastering the language.
- vocabulary is necessary in comprehension.
- without vocabulary learners can not read ,speak listen and write.
- vocabulary is beneficial for learners, as they have a chance to handle L2 in both receptive and productive skills more successfully.
- without vocabulary the message can not be conveyed.

4.Types of Vocabulary

There are several classifications of vocabulary. It is essential to distinguish between these different types. The researcher is going to handle the types of vocabulary as discussed in different books and by researches as follows:

4.1 Receptive and productive

Nation (2001) divided vocabulary according to its use into two types: receptive and productive / expressive vocabulary.

A. Receptive vocabulary means words that learners can recognize and comprehend in the context of reading and listening material.

B. Productive / Expressive vocabulary means words that learners can recall and use appropriately in speaking and writing to expressive themselves and to convey their messages.

4.2 Passive and Active

Cairns and Redman (1986) state that receptive and productive vocabulary are often called passive and active vocabulary.

Most researchers nowadays construe lexical knowledge as a continuum consisting of several levels and dimensions of knowledge, starting with superficial familiarity with a word and ending with the ability to use the word correctly in free production (Laufer & Goldstein, 2004 ; Nation 2001).Vocabulary on the continuum may shift from passive to active vocabulary when being properly activated. Therefore, the view of a continuum appropriately expresses the dynamic complexity of vocabulary knowledge. (Zhiying; Teo,& Laohawiriyanon,2005).

We understand "receptive" vocabulary to mean language items which can only be recognized and comprehended in the context of reading and listening and listening material "productive" vocabulary to be language items which the learner can recall and use appropriately in speech and writing. (Cairns & Redman,1986:64).

Passive vocabulary knowledge involves receiving the form of a word while listening or reading and retrieving its meaning. Productive vocabulary knowledge, on the other hand, means to express a meaning through speaking or writing and retrieve

and produce the appropriate spoken or written word form (Nation, 2001). Thus, passive vocabulary knowledge involves a process from form to meaning and productive vocabulary knowledge involves a process from meaning to form.

4.3 Content Words and Function Words

Languages make an important distinction between two kinds of words—content words and function words. Nouns, verbs, adjectives, and adverbs are the content words. These words denote concepts such as objects, actions, attributes, and ideas that we can think about like **children, anarchism, soar, and purple**. Content words are sometimes called the open class words because we can and regularly do add new words to these classes. Other classes of words do not have clear lexical meanings or obvious concepts associated with them, including conjunctions such as **and, or, and but**; prepositions such as **in** and **of**; the articles **the** and **a/an**, and pronouns such as it. These kinds of words are called function words because they specify grammatical relations and have little or no semantic content. Function words are sometimes called closed class words. It is difficult to think of any conjunctions, prepositions, or pronouns that have recently entered the language. The small set of personal pronouns such as I, me, mine, he, she, and so on are part of this class.(Fromkin , ;Rodman ,& Hyams , 2010)

5.Denotation and Connotation

Teaching the meaning includes mainly connecting a word with its equivalent in the real world. It is called denotation. Apart from denotation, connotation of the word (associations and feelings, which arise when the word is heard) should be taught. Many vocabulary items have several meanings depending on context.

A very simple approach to the analysis of word meaning sees words as naming or labeling things in the world drawn between denotation and reference. Denotation is used for the class of thing indicated by a word، whereas reference is used for a particular thing that is indicated when the word is used, for example, the word cat denotes the class of all cats in the sentence a cat makes a good pet, but it refers to particular in the sentence a cat scratched her arm .Connotation refers to the associations that a word has for us. Psychologists have long been aware to words than referential meaning. (Yule ,1996:94)

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6. Retention

Memory is considered an essential factor for learning. No one can learn without memory and all what we learn would be useless if we cannot remember things . Thus, retention is very important in learning process . Souleyman (2009:108) mentions that retention is a function of memory that can be defined as including more complex functions as memorizing or learning, retention, recall, and recognition. He adds that there are processes that precede retention which are noticing, intake, and storage in the short term memory and later in the long-term memory. Carter & McCarthy (1988:13) point that in terms of retention, there are clear differences to be drawn between short term and longer term memorization.

Cairns & Redman (1986:87) indicate that short term memory , is clearly different form long term memory , which is our capacity for recall of information minutes , weeks and a year after the original input . Information entering short term memory may pass quite effortlessly into long term memory and some learners may find repetition a very effective way of transferring information into long term memory. Our "mental lexicon " is highly organized and efficient where storage of information haphazard. we would be forced to scan in a random fashion to retrieve words.

According to Thornbury (2002 :23) the short –term store is the brain's capacity to hold a limited number of items of information for periods of time up to a few seconds. Or to repeat a word when you've just heard the teacher modeling. But a successful vocabulary learning clearly involves more than simply holding words in your mind for a few seconds. Focusing on words long enough to perform operations on them is the function of working memory. Many cognitive tasks such as reasoning, learning and understating depend on working memory. It can be thought of as a kind of word bench, where information is first retrieval. The information that is being manipulated can come from external sources via the senses, or it can be' downloaded' from the long- term memory. For example, a learner can hear a word(like tangi),download a similar word from long term memory (like tango), and compare the two in working memory, before deciding if they are the same or different. Material remains in working memory for a bout twenty seconds.

6.1.Vocabulary Retention in Language Learning

Vocabulary retention is an essential factor in learning English as a foreign language. Vocabulary retention has been defined as "the ability to recall or remember things after an interval of time. In language teaching, retention of what has been taught (e.g. grammar rules and vocabulary) may depend on the quality of teaching, the interest of the learners, or the meaningfulness of the materials" Richards & Schmidt(2002 cited in Khabiri & Pakzad 2012:80) . Mohammed (2009:16) defines vocabulary retention as " the ability to keep the acquired vocabulary and retrieve it after a period of time to use it in different language contexts."

Thornbury (2002:23) indicates that learning is remembering ,the learner needs not only to learn a lot of words, but to remember them. Bahrick (1984) states that how well people remember something depends on how deeply they process it. Therefore, various procedures have been recommended to facilitate vocabulary retention.

To retain the meaning of a word, learners must engage in a deeper analysis of the word's properties rather than simply understand its meaning in context. In the context of word learning, a deeper level of processing means a stronger connection between the word form and its meaning (Craik & Tulving, 1975). VanPatten, Williams, & Rott (2004 :5) define form-meaning connection for acquisition as a multiple process with at least three stages: '1) making the initial connection, 2) subsequent processing of the connection, and 3) accessing the connection for use' . The initial connection can take place in linking the form with its meaning. But for acquisition to take place, this initial connection must be strengthened through frequent encounters with the target item that help learners develop its full meaning. Finally, learners should be able to access the form-meaning connection already established and use it productively in various kinds of tasks.

According to Allen & Valette (1977:155) the presentation of new words is only the first step in the process of language learning. The students must subsequently remember these words and make them part of their own vocabulary. Retention is a product of frequent practice . Pressley and Levin's (1981 cited in Tassana-ngam, 2004:101) study suggests that the keyword helps learners recall L2

vocabulary. Carter & McCarthy (1988:13) mention that the more opportunities that can be found for formal transfer between foreign and mother – tongue words, the better the chances of retention .

For long-term recall, the successful learner not only can analyze and rehearse the new word and its meanings, but also can elaborate the word-meaning complex and establish it within a suitable network of meaning. This elaboration probably increases the chances that the word and its meaning will be available for use at a later time (Lawson & Hogben 1996 :104).

Haycraft (1978 cited in Khabiri & Pakzad 2012) states that the words which are related to each other can be easily retained, because using the meaning of words together with the whole meaning of the sentences in which they are embedded is the deepest level of processing and ensures the best retention.

Research reported in Nation (1982:18) suggests that similarities in sound, morphology or etymology can assist word memorization. Carter & McCarthy (1988:14) point out that more memorizable still would be words which are international "loan" words such as telephone , radio, television, which have many close cognate forms in other languages.

Cairns & Redman(1986:88) consider other variables which affect storage .One important factor here is word frequency : items which occur most frequently are also easily recognized and retrieved . Thornbury (2002,24-25)summarizes some of the research findings that are relvant to the subject of word learning:

- Repetition :The time-honoured way of 'memorizing' new material is through repeated rehearsal of the material while it is still in working memory.
- Retrieval: the act of retrieving a word from memory makes it more likely that the learner will be able to recall it again later.
- Use: Putting words to use, preferably in some interesting way, is the best way of ensuring they are added to long-term memory.
- Pacing: Learners have different learning styles, so they should be given the opportunity to pace their own rehearsal activities by allowing time during vocabulary learning for learners to do 'memory work'.

- Cognitive depth: The more decisions the learners makes about a word, and the makes about a word and the more cognitively demanding these decisions, the better the word is remembered.
- Imaging: Best of all were subjects who were given the task of silently visualizing a mental picture to go with a new word.
- Mnemonics: These are 'tricks' to help retrieve items or rules that are stored in memory and that are not yet automatically retrievable.
- Motivation: A strong motivation makes the learner is likely to spend more time on rehearsal and practices, which in the end will pay off in terms of memory.
- Attention: Words that trigger a strong emotional response are more easily recalled than ones that don't.

A lesson plan was created for every class session based on the brain-learning principles by Caine and Caine (1997) as follows:

- The brain is a parallel processor.
- Learning engages the entire physiology.
- The search for meaning is innate.
- The search for meaning occurs through "patterning".
- Emotions are critical to patterning and drive our attention, meaning and memory.
- The brain simultaneously perceives and creates parts and wholes.-Learning involves both focused attention and peripheral perception.
- Learning involves both conscious and unconscious processes.
- We have at least two types of memory: spatial and rote.
- We understand and remember best when facts are embedded in natural, spatial memory.
- Learning is enhanced by challenge and inhibited by threat.
- Each brain is unique.

Caine and Caine (1994) suggest three important phases of the learning and teaching process that are very valuable in developing lessons for the learners. These are: orchestrated immersion, relaxed alertness, and active processing. Each phase is

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not a separate entity from the others. Each has a distinct role in the teaching and learning process by which students comprehend the lessons in a no threatening way.

By paying more attention on the brain and its faculties, vocabulary learning will probably no longer become a difficult task for every second language learner. The students' awareness of learning consciously will be enhanced knowing that they are learning for a valuable reason. Yet, one should know the brain first and how it functions in order to use it for optimal learning.

7.Teaching Second Language Vocabulary

English language, like any other language, has different areas that students should study, such as vocabulary, grammar, spelling, listening and reading. In the past, vocabulary teaching and leaning were often given little priority in second language programs, but recently there has been a renewed interest in the nature of vocabulary and its role in learning and teaching (Richard& Renandya,2002:255) . Decarrico (2001) states that words should not be learnt separately or by memorization without understanding. Moreover, "learning new words is a cumulative process, with words enriched and established as they are met again",

From the researcher's EFL/ESL teaching experience, vocabulary teaching in class was less focused on than teaching English grammatical rules, as a part of the school syllabus. The grammar translation method plays a prominent role in the English classroom . In terms of knowing a word, vocabulary teaching in the classroom was simply restricted to give learners a long list of English words together with Arabic translations. Thus, the learners basically learned two things: the English or L2 word form and the Arabic translation. Extra information about new words (e.g. English definitions, synonyms antonyms, etc.) was optional, depending on whether or not each individual teacher provided the extra information. The learners were normally asked to learn/memorize words on their own. Fox (1987, cited in Tassana-ngam, 2004:17) clarifies that "Students had been learning foreign languages by a grammar translation method which flooded them with new vocabulary items and grammatical structure, but did not allow time to assimilate them much."It can be said perhaps that learners had little interest or enjoyment when learning and acquiring vocabulary. Allen & Valette (1977:149) indicate that words are generally taught in context .Thornbury (2002,22) focuses on the teacher role of encouraging an enthusiasm for

vocabulary acquisition , and provides learners with strategies for self-directed learning. There are some specific guidelines for effective vocabulary instruction as stated by Bromley (2002:11). Theses guidelines are:

- teach word structure and relate new words to other words.
- model and teach word learning as an active strategy for independence.
- teacher should show an attitude of interest and excitement about language and words.
- actively engage students in a variety of ways .
- invite students to interact with each other about new words.

Readers in L2 should develop similar ways of handling new words that L1 readers use through the incidental learning of vocabulary. The guessing from context strategy is regarded as "the most important of all sources of vocabulary learning" (Nation, 2001:232). Teaching meanings of single words out of context does not yield good learning outcomes because of the polysemic nature- of words (Twaddell, 1973). Moreover, cognitive psychologists like Craik & Tulving (1975) believe that strategies which involve deeper manipulation of information like guessing from context may yield better retention and therefore are conducive to learning.

7.1Techniques of Vocabulary Presentation

Presenting new vocabulary or reviewing previous vocabulary is a very important part of an English language lesson. Proper presentation and checking can help students in remembering the new vocabulary and quickly understand the meaning. There are different techniques to present vocabulary in the following table from Gairns, R. & Redman, S. (1986)**.**

Visual techniques	Verbal techniques	Miscellaneous
flashcards	illustrative situation	contextual guesswork
miming	contrasts	peer teaching
blackboards drawings	illustrative examples	dictionaries
gestures	synonyms	
realia	definitions	
wallcharts	opposites	
scales	translation	

Scrivener(1994:83)points out many vocabulary practice activities as follows :

• matching pictures to words

• matching parts of words to other parts, e.g. beginnings and endings

• matching words to other words, e.g. collocations, synonyms, opposites,

sets of related words, etc.

• using prefixes and suffixes to build new words from given words

• classifying items into lists

• using given words to complete a specific task

• filling in crosswords, grids or diagrams

• filling in gaps in sentences

• memory games

8.Selection of Vocabulary

There is a problem with teaching vocabulary because there are hardly any rules for teaching vocabulary. In grammar this is quite obvious as you cannot teach students present perfect before present simple. In vocabulary there is only one rule or tool which says to teach concrete words before abstract ones (Harmer ,1991: 154). According to Scrivener(1994: 74) students - beginners are first taught words that they can use immediately as they are let to practice these words in lessons through easy speaking activities, for example, asking about their names, ages, hobbies etc. However, the more words they learn the more difficult it is to remember them or the words are so specific that they are not easily usable.

Harmer(1991:154) presents two criteria which are *frequency* and *coverage* of what vocabulary is important for our students. The first term means that we teach words according to their frequency of usage. For example, word *love* is more frequent than a word like *innocence*. The latter term means that we should prefer teaching words that stand for more things than just one, for example, the word *book* has broader meaning than *notebook* .

However, he adds that we cannot follow the principle of frequency so strictly because words that are the most frequent in English are not the most useful automatically. In other words, the rule "the more frequent the more helpful", is not valid .

9. Size of vocabulary

Vocabulary development is a lifelong process. It begins with a child's first utterance of "da-da"or "ma-ma." By the time they enter first grade. Most children

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have vocabularies in excess of 10,000 words. Most well educated adults have vocabularies ranging upward from 50,000 words. The size of your vocabulary bears a close relationship to your success , not only in school, but also in your career. (the writing improvement project ,1977:1).

A native speaker has a vocabulary about 20,000 words whereas a good learner who has studied English for several years knows only around 5,000 words. Thornbury (2002:20-21) mentions that a student of English would need about 18 years of studying to be able to receive the same amount of vocabulary which a native speaker absorbs only in one year. He claims that the number of words which every student needs to make themselves understood is 2,000 words, this is called *core vocabulary*. This amount is used by native speakers in conversation as well as in so called *defining vocabulary* which occurs in monolingual dictionary.

10.Why test vocabulary?

Thornbury (2002:129)explains that similarly we could ask about anything. The main reason for testing is that it gives us information about how well our students proceed in their learning of English. It gives useful feedback to both teachers and students. In addition, when the teacher announces her students that a vocabulary test is coming in a period of time, they will probably start to study the vocabulary harder than before, so it will have a positive effect .In general, testing helps to "recycle" vocabulary as well as to consolidate it. However, vocabulary testing does not have to be always marked, we can prepare a test on vocabulary which will only revise words. The ideal model is to revise vocabulary from the previous lesson at the beginning of another lesson.

Testing vocabulary also occurs in placement tests or diagnostic tests to find out students´ level of knowledge or in achievement tests at the end of the school year(Thornbury,2002: 130).

11. Types of Testing vocabulary

Testing vocabulary is a very important method to get feedback about students' understanding and achievement. In fact, it is more efficient to use different ways of testing. Kitao,& Kitao, (1996) indicate that in evaluating vocabulary, it is useful to be able to test from various points of view: (1) knowledge of word meanings; (2)

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knowledge of word forms; and (3) knowledge of how to surmise meanings of unknown words from the context. Pavlů(2009) describes different techniques to test vocabulary, as follows:

11.1. Multiple choice

This is a question which consists of a so called *stem* and four options from which only one is correct. The examinee has to choose the right answer. We can use it either for testing single words, words in sentences or in texts. For example

He accused me of ...... lies.

a. speaking

b. saying

c. telling

d. talking

Single words can be tested through definitions, for example:

tangle means

a) type of dance

b) a tropical forest

c) a confused mass

d) a kind of fruit

Words can be tested in sentences, for example:

There is a good _____ at the Odeon tonight.

A) screen B) film C) showing D) acting

The biggest advantage of this kind of testing is that we do not have to worry about subjectivity because only one answer should be correct. Secondly, it is very easy and quick for the examiner to correct this test because he or she just puts ticks or crosses.

11.2. Cloze test

Another way how vocabulary can be tested is *cloze test*. This type examines active vocabulary because students are not given any options, they just have a text with gaps.

11.3. Word formation

Students have to change the form of word so that it fits to a particular sentence. They have to show that they understand the context and that they know various forms of a word.

11.4. Matching

Through matching, we normally test the meaning of words, usually words of the opposite meaning. Students do not produce any vocabulary, they only match given words. There are also other possibilities than just matching words of opposite meaning. We can design a test where words and pictures are being matched.

11.5. Odd one out

Students have to determine which item does not belong among the others. The amount of items can be various. This kind of exercise is easy to prepare, however, the teacher must know which words students know so that they could find the odd one. It also test only the meaning of words, but it can be both useful and interesting for the students. For example:

Find the odd word: parrot hen eagle cow penguin goose sparrow

11.6. Sentence completion

Students are given incomplete sentences containing words that we need to test. Their task is to complete these sentences so that they make sense. For example:

Finish the following sentences:

1. I feel depressed when...

2. I never have an appetite when...

3. It was a great relief when...

11.7. Definitions

The teacher gives students a list of definitions of words she needs to test. However, not every word can be easily defined and sometimes there can be more than one possible answer. Moreover, the definitions should be clear so that students understand the definition and can come to the right answer. Simple example of a definition

It is an animal which likes bananas. (monkey)

11.8. Translation

Learners can be tested through translation quite well and it can test both meaning and form.

11.9. Writing

This type of testing is productive, students have to show their word knowledge, so the test is valid but two teachers would not probably come to exactly the same result in scoring which means that such testing is not very reliable. Thornbury (2002:131) suggests to set as accurate demands as possible to increase reliability and to give criteria according to which the teacher will correct the test. Such criteria are *lexical density*, *lexical variety* and *lexical sophistication*.

Lexical density is *content words* which are the opposite of *function words,* these words carry the meaning, they are nouns, adjectives and verbs.

Lexical variety measures how various the text is, usage of different words, structures.

Lexical sophistication means usage of infrequent vocabulary in writing which are those words that do not belong to the group of 2,000 most used words in English.

11.10 Reading

Through reading we can test passive vocabulary mostly which is also useful for students as they learn to guess meaning of words from context, they will need this ability a lot in their future studies of English.

11.11 Oral testing

To know a word also means to be able to pronounce it well.

11.12 Associations

Students have to underline those words which belong to the key word: "Furniture : house, table, floor, window, curtain, bed, kitchen, chair"

11.13 Placing

Students underline those words which relate to, for example. movement: "think, run, keep, walk, jump, answer"

11.14 Synonyms and antonyms

Students have to write down words of the same meaning or the opposite of the word.

"clever _____ (bright)

important _____ (significant)"

Students have to write down words of the opposite meaning:

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"beautiful _____ (ugly)

happy _____ (sad)"

11.15 Transformation

Students have to rewrite a sentence but with the same meaning:

"Bob is very good at football.

He plays football _____"

11.16 Substitution

Students have to rewrite the original sentence in the form which is indicated by the given words

"He is a clever boy. You _____

11.17 Rearranging

Students have to rearrange given words so that the sentence makes sense and is grammatically correct.

Example: am/tall/as/she/as/is.

Section II

Puzzles

1.The History of Puzzles

Puzzles first appeared in English during the 1800s in London. Ever since 1913, when the first American crossword puzzle appeared in the New York World, the crossword puzzle has become an important vocabulary learning tool both in recreational and educational terms (Hamel,2010).

The first word cross appeared in the "Sunday supplement" of the New York World on December 21, 1913. It was the creation of an Englishman Arthur Wynne; a journalist from Liverpool, England and had migrated to the United States. It contained thirty-two clues and consisted mainly of simple definitions. When it first appeared, the crossword grid was shaped like a diamond, However, the square shape was changed by the time it arrived Britain eleven years later, It became like that we are now familiar with. Soon after, crossword puzzles became a regular feature in newspapers. By the 1920, people noticed the phenomenon of crosswords. In 1921, the New York library declared that "the latest craze to strike libraries is the crossword puzzle". In the 19th century, people of England were aimed at a juvenile audience and adults were less interested in them until Simon and Schuster printed the first book of them in 1924. The crossword puzzles popularity continued to build throughout the 20th century. At that time solving a puzzle became a fashion and people had great desire to challenge each other. The term crossword puzzle did not appear in a dictionary until 1930. *The New York Times* was not to publish a crossword puzzle until 1942, after the complaints it had done about crossword puzzle in 1924. The New York Times declared that: "crossword puzzle is not a game at all, and it hardly can be a sport, get nothing out it except a primitive form of mental exercise, and success or failure in any given attempt is equally irrelevant to mental development". However, today, most American daily newspapers include a crossword puzzle as well as many magazines and the New York Times crossword puzzles are the most prestigious and the most difficult to solve. (Wikipedia.)

2. Puzzle definition

Puzzle is defined as a game that tests your knowledge, skill, intelligence (Oxford Wordpower,2002). According to **(**Wikipedia**)** it is defined as a problem or enigma that tests the ingenuity of the solver. In a basic puzzle, one is intended to put together pieces in a logical way in order to come up with the desired solution

Oxford Reference Premium defined a puzzle as " a problem having one or more specific objectives, contrived for the principal purpose of exercising one's ingenuity and/or patience".

According to Farlex (2009) puzzle is something, such as a game, toy, or problem, that requires ingenuity and often persistence in solving or assembling.

The researcher defines puzzle as a confusion situation which requires a solution .

3. Types of puzzles

The researcher is going to handle the types of puzzles as discussed in different books and researches as follows:

3.1. Picture puzzles

3.1.1. Spot the difference is a type of puzzle where players must find a set number of differences between two otherwise similar images, whether they are illustrations or photographs that have been altered with photo manipulation. Spot the difference games are also known as photo hunt games, and are commonly found in activity books for children or in newspapers.

3.2 Word game

According to Jung (2005:4), "games encourage, entertain, teach, and promote fluency and communicative skills". Deesri (2002:1) indicates that games are regarded as very useful and important strategy to stimulate language acquisition. They are defined as a form of play concerning competition, rules and fun. Therefore, teachers should use games in teaching to attract students' attention, decrease students' stress and give them the opportunity to communicate effectively. Word games and puzzles are spoken or board games are often designed to test ability with language or to explore its properties. Solving crossword puzzles, which requires familiarity with a larger vocabulary, is a

pastime that mature adults have long credited with keeping their minds sharp (Wikipedia). Thus, word game provokes thinking and stimulates language acquisition.

3.2.1 Scrabble

Scrabble is a board game in which words are formed by placing lettered tiles in a pattern similar to a crossword puzzle. (The Online Free Dictionary by Farlex ,2009).

Scrabble is a game indicated to enlarge and improve the player vocabulary. It is very orientated to this task and it is difficult (but not impossible) to use this game for other educational content. One way of doing it is by limiting the words that can be made to pre established themes.(Mira,2009)

3.2.2 Anagram

Anagram is a type of word play, the result of rearranging the letters of a word or phrase to produce a new word or phrase, using all the original letters exactly once; for example *orchestra* can be rearranged into *carthorse*. Someone who creates anagrams may be called an "anagrammatist". The original word or phrase is known as the *subject* of the anagram.

Any word or phrase that exactly reproduces the letters in another order is an anagram. However, the goal of serious or skilled anagrammatist is to produce anagrams that in some way reflect or comment on the subject. Such an anagram may be a synonym or antonym of its subject, a parody, a criticism, or praise; for example: *William Shakespeare = I am a weakish speller* (Wikipedia).

3.2.3 Crossword

According to Merriam-Webster online Dictionary (2010), crossword is defined as a puzzle in which words are filled into a pattern of numbered squares in answer to correspondingly numbered clues and in such a way that the words read across and down . It is defined in oxford Dictionary (2002) as a word game with black and white squares where you write the words in the white squares, either across or down.The correct words are the answers to special questions called clues.
Cambridge Dictionary Online defines it as a game in which you write words which are the answers to questions in a pattern of black and white squares.

Crossword puzzles draw upon one's general knowledge, recall of words defined or suggested by short definitions or pieces of information, and spelling ability. Through study and practice, a person learns some useful strategies and can make considerable gains in crossword puzzle solving expertise. Doing a crossword puzzle is like doing a certain type of brain exercise (Moursund,2007).

Generally, a crossword puzzle takes the form of a square grid of white and shaded squares. The white cells which are sometimes called lights are supposed to be filled with letters. Hence, words are formed by solving the numbered clues which yield to the answers. Whereas, the shaded cells, which are called darks, blanks, blocks, or shaded squares are used to separate the words or phrases.

The words, obviously, are not written in the puzzle; only the spaces or blanks where the Answer's letters should be written. Moreover, the white squares in which answers begin are usually numbered. The clues or the definitions are directed by numbers and sometimes letters, for example, C across and 6 down. The total number of letters is sometimes given at the end of the clues, as it is clearly stated in the present study. These directions may facilitate the job of the learners. (Wikipedia).

Mira (2009) indicate that crosswords are very dependable of the question which makes the game easily adaptable to a learning context and diverse educational content. It can be used for vocabulary, general knowledge and grammar at some extend. It can also be used for text interpretation. The answers are written letter by letter so there isn't any luck involved. However, the facts that after responding a word we know letters from the words it crosses and that we know the size of the word, helps guessing the words without knowing the real answers.

3.2.3.1 Types of Crossword Puzzles
Mainly, there are four crossword variants. Those four types of crossword variants may be different from a regular shape grid puzzle; they need different clues and different solving skills.

3.2.3.1 Cipher Crosswords
Cipher crosswords contain numbers in the clues, and the solver must break the cipher code to read the clues and solve the puzzle. A cipher crossword replaces the clues for each entry with clues for each white cell of the grid – "an integer from 1 to 26 inclusive" is printed in the corner of each. Cells with matching numbers will also

have matching letters/answers, and no two numbers will stand for the same letter throughout the entire puzzle. (Wikipedia).

3.2.3.2 Fill-in Crosswords

Fill-in crosswords may often have longer word length than regular crosswords, because the more characters the solver start working from, the easier the puzzle will be to solve. The constructor is required to enter a full list of words to the grid, but there are no explicit clues for where each word goes. So, he has to figure out how to integrate the list of words together with exact spelling within the grid, so that all intersections of words are valid, because a misused word or even phoneme may distort the whole puzzle.

3.2.3.3. Crossnumbers

In this type of crossword puzzles, the clues of the puzzle are numbers instead of words. They are typically mathematical expressions or formulas, but could also be verbal clues to reference specific numbers, such as dates or populations.

3.2.3.4. Acrostic Puzzle

Acrostic puzzles are usually composed of two sections: first is a set of lettered clues and the second part is a long series of numbered blanks and spaces.

4. Puzzles criteria

Michalewicz & Michalewicz (2008) assert that teachers should use puzzles according to basic criteria as following**:**

- **Generality**: Educational puzzles should explain some universal mathematical problemsolving principles.
- **Simplicity**: Educational puzzles should be easy to state and easy to remember**.**
- **Entertainment factor**: Educational puzzles should be entertaining**.**

5. The benefits of educational puzzles

Using puzzles is considered as a tool that allows language teachers to create motivation to the activities in the classroom and to make them lively by providing challenge and entertainment at the same time. As Danesi (1979: 7) suggests, "puzzles may also serve as a needed change of pace to the daily routine of teaching techniques and can perhaps serve to increase students' motivation as a result". Moursund (2007:27) indicates that puzzles help each student learn to learn, learn to take responsibility for their own learning, understand his or her capabilities and limitations

as a learner, and to develop persistence and other lifelong habits of learning. Edge (2011) points out skills that are enhanced by playing with puzzles**: as follows

-**Cognitive skills:** Puzzles improve a child's problem solving and reasoning skills.
-**Fine motor skills:** Puzzles are fun way to improve fine motor skills.

-**Hand-eye coordination:** As a child places each piece in the puzzle they are manipulating to see if it fits. Their hand eye coordination is enhanced through this trial and error process.

-**Social skills:** Puzzles can be done alone but are also a great tool for fostering cooperative play.

Puzzles should be looked upon as a pedagogical tool that is able to integrate learning with enjoyment ; therefore, they deserve a serious consideration by English teachers. Consequently, teaching with enjoyment is a goal desired and sought by all teachers Learners are not supposed to wait teachers to teach them new vocabulary because vocabulary is something that can be achieved by practice and puzzles can be one way to experience such learning. Moreover, the Chinese proverb recognizes the importance of task involvement of learners for successful learning "tell me, and I'll forget; show me, and I'll remember; involve me, I'll learn".

Another benefit of using crossword puzzles in classroom is that they can be less threatening for students as a review tools. They offer challenge between students. "The games are a form of teaching which may be used in circumstances where ordinary approaches are not well tolerated; when attention is hard to get and harder to keep" Nicolson and Williams, (1975: 1). Teachers have long recognized and used students' inner feelings to play as a means of encouraging them to learn. Some scholars reported the successful use of games when teaching French to elementary students. Learning activities such as puzzles and games form an essential part of learning. "Playing with words can be linked to playground tennis or cricket or to any other practice game: it is a necessary preliminary to efficiency. For beginners at, say, cricket, you play with a soft ball and you bawl underarm, gently and straight; later on you cease to play with a soft ball and you bawl quite hard, with the occasional spinner or off-break" (Nicolson and Williams, 1975:1). It is therefore important that the game

should be adjusted to the students' linguistic ability. Meantime, some instructor don't show any interest in using games, especially when teaching adolescents or adult learners (Celce-Murcia and Macintosh, 1979).

Moursund (2007) emphasizes that solving crossword puzzles helps to maintain and improve one's vocabulary, spelling skills, and knowledge of many miscellaneous tidbits of information. Solving crossword puzzles tends to contribute to one's self esteem. For many people, their expertise in solving crossword puzzles plays a role in their social interaction with other people.

Puzzles regarded as educational materials have a significant contribution to psycho-motor, mental, linguistic and social-emotional development of children and are used in different age groups. Puzzles support children to learn by playing and make a positive contribution to the development of mental skills such as perceiving, reminding, solving, investigating, comparing, connecting, being aware of similarities and differences, paying attention to the details, being able to make a visual distinction, animating in the mind, problem-solving, thinking critically, analyzing, making part-whole hierarchies, paying attention, to making gradual trials and also to the development of their schemes.(Yaşar, Aral & Gürsoy, 2012:1)

ESL/EFL specialists often justified the use of games with reference to the motivation that they can provide for the students. "Games are, by definition, fun, and nearly everyone would agree that if learning can be made enjoyable, then students will learn more" (Celce-Murcia and Macintosh, 1979: 56). "The use of word games to teach vocabulary does not mean or suggest pleasant ways of passing the class time. The entertainment of students is not a teacher's responsibility" (Allen, 1983:10). Rather, teachers are responsible for creating a constructive classroom atmosphere, which encourages vocabulary expansion, and "a well-chosen game can help the students acquire words correctly and feel that certain words are important and necessary because without those words, the objective of the game cannot be achieved" (Allen, 1983:10). The main reasons behind most students' enthusiasm for puzzle-based learning are: Puzzles are educational, but they illustrate useful (and powerful) problem-solving rules in a very entertaining way. Puzzles are engaging and thought-provoking (Michalewicz& Michalewicz, 2008).

When teachers present vocabulary to the students, they activate students' interest and curiosity. Research studies have clearly established the importance of Puzzles in the learning process. Research studies indicate that puzzles are wonderful tool for helping learners develop skills necessary to read, write and problem solve**.** They can also grab learner attention and help them develop a better attention. Thus, By effective selecting and implementing of instructional strategies based on puzzles, teachers can better support students on their learning and succeeding throughout the curriculum.

Conclusion

From this literature review, it is evident that there is a big correlation between puzzles and learning. If students have learned through puzzles , they will be able to practice their skills in making inferences, evaluating choices, and drawing up possible conclusions. Also, the learning outcomes will increase. Furthermore, the students will become familiar with a number of words and phrases that they never knew before. The current study is hoped to help the tenth grader' teachers to present vocabulary through puzzles and activate what students have.

Section III

Attitudes

Derived from the Latin word -aptitude- and the Italian -atto- (Latin=actus or English= act) the word -attitude- was considered an abstract mental concept less than a century ago. Previously, it was only considered as something physical and was used to describe the pose people took for a portrait (Baker, 1992). From a psychological point of view, Ajzan (1988: 4) considers attitudes as "a disposition to respond favourably or unfavourably to an object, person, institution, or event". Attitudes, according to Crystal (1997: 215), are the feelings people have about their own language or the languages of others. Allport (1935) defines, "attitude is a mental or neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related" (cited in Baker, 1992:11). Thus, attitude to language is a construct that explains linguistic behaviour in particular.

According to Baker (1992: 12), there are three components of attitude: the cognitive, affective and readiness for action components. The cognitive component concerns thoughts and beliefs; the affective component concerns feelings towards the attitude object. The feeling may concern love or hate of language or a anxiety about learning a language. Attitudes and action have a symbiotic relationship. It is very important to understand the language attitudes in the process of language planning and policy implementation. The matter of learner's attitude is acknowledged as one of the most important factors that impact on learning language (Fakeye, 2010). As Baker(1992, 21) stresses : Attempting language shift by language planning, language policy making and the provision of human and material resources can all come to nothing if attitudes are not favourable to change. Language engineering can flourish or fail according to the attitudes of the community. Having a favourable attitude to the subject of language attitudes becomes important in bilingual policy and practice . Consequently, noting the change in attitudes is an essential part for ensuring effective language policy making, language planning and action.

Kara (2009:102) states that "Positive attitudes lead to the exhibition of positive behaviors toward courses of study, with participants absorbing themselves in courses and striving to learn more. Such students are also observed to be more eager to solve problems, to acquire the information and skills useful for daily life and to engage themselves emotionally." Attitude can help the learners to express whether they like or dislike the objects or surrounding situations. It is agreed that the inner feelings and emotions of FL learners influence their perspectives and their attitudes towards the target language (Choy & Troudi, 2006).

Reid (2003: 33) declares , "*Attitudes are important to us because they cannot be neatly separated from study.*" .Visser (2008) indicates that attitude is considered as an essential factor influencing language performance. Karahan (2007:84) points out that "positive language attitudes let learner have positive orientation towards learning English". Thus, attitudes may play an important role in language learning as they would appear to influence students' success or failure in the learning process .

1. Attitudes and Achievement

The importance of attitude is due to the effect it may have on the student's achievement, as the results of many studies have shown. Echavez-Solano (2003) emphasized this by stating that positive attitude leads to an enthusiasm to study and learn English. Attitudes can possibly affect learners' achievement and the desire to continue studying in the target language. Kara (2009) states that attitudes towards learning besides opinions and beliefs have an obvious influence on students' behaviors and consequently on their performance. It is argued that those students who possess positive beliefs about language learning have a tendency to increase more positive attitudes towards language learning. Conversely, negative beliefs may lead to class anxiety, low cognitive achievement, and negative attitudes (Victori & Lockhart, 1995).

From the above mentioned, the researcher thinks that achievement in a target language relies not only on intellectual capacity, but also on the learner's attitudes towards language learning.

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2. Attitudes and Motivation

Motivation plays an essential role in language learning, and the factors of motivation are considered effective in determining the success or failure of language learning. According to Slavin (2003: 328) considers motivation as "one of the most ingredients of effective instruction". Lifrieri (2005:5) points out that "when asked about the factors which influence individual levels of success in any activity – such as language learning –, most people would certainly mention motivation among them". Hauptmann (2004:19)clarifies that there is intrinsic motivation which comes from within the learner and his perceived personal needs. There is also extrinsic motivation which influences the learner from 'outside', e.g. material awards such as gaining or retaining a job because of acquired new knowledge or using evening classes to improve one's performance in mainstream education to pass school exams.

McDonough (1983:142) states that "motivation of the students is one of the most important factors influencing their success or failure in learning the language"Another factor is learners' attitudes. This is because an ESL/EFL learner's motivation in language learning is affected by his/her attitudes towards learning the language. The relation between motivation and attitudes has been considered a prime concern in language learning research. Gardner and Lambert (1972:3) state that "his [the learner] motivation to learn is thought to be determined by his attitudes towards the other group in particular and by his orientation towards the learning task itself". Gardner (2006: 241) posits that "students with higher levels of motivation will do better than students with lower levels".

Ushida (2005,67) conducts a study that investigated the role of motivation and attitudes on student L2 learning in an online L2 course context. The results indicated that students who had positive motivation and attitudes toward language study tended to do well on the module tests and to participate actively in online chat sessions with the LA. He clarifies that there is a positive relationship between students' motivation and attitudes and achievement. students who had positive motivation and attitudes toward the study of French and Spanish were able to control their learning even though they had to study mostly on their own.

McDonough and Shaw, (1996:8-9) identifies some factors which influence both teachers' and students' enthusiasm to teach or learn EFL, which are as follows:

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- The role of English language in the country : if it is a language of communication in the country or it is only a subject of the curriculum, if it is spoken in the street or it is never heard outside the class.
- The role of EL in the school, its place in the curriculum.
- The teachers: their status, at the national and at the institutional levels, their training, attitudes to their job, experience and expectations.
- Resources available: books and paper, audio-visual materials, computers and other facilities.
- The number of pupils to be taught and the size of classes.
- Time available for the programme over the year or in one week.
- Physical environment: The nature of the building, noise factors, flexibility of tables and chairs, size of room in relation to the size of class, heat and cold and so on.
- Socio-cultural environment: the suitability of materials introduced and the method used to introduce them.
- Types of test used: formal or informal and subjective tests: external or internal tests.
- Procedures used to evaluate the language programmes.

In order to encourage students' motivation to learn L2 according to Al Moghani (2003:65) Students have to experience the feeling that they are important members in the class, and learning situations should be meaningful to them. One of the main factors that influence students' motivation to learn is students' participation in classroom activities because their communication with other students and with the teacher is necessary to encourage their motivation.

Thus, There is a great relationship between attitudes and motivation.

3.Students' Attitudes Towards English Language

In general attitudes towards learning a foreign language are correlated with language achievement. It is assumed that learners with positive attitudes towards learning a FL will engage in the learning process, will enjoy acquiring new input, will accomplish tasks and therefore achieve more than learners with negative attitudes (Gardner 1985: 41).

It is very important to assess and deal with students' attitudes towards studying English. Different aspects of language attitudes have also been studied such as the relationship between attitudes and learning strategies studied by Gan, 2004, and the relationship between attitudes and achievement studied by Graham, 2004 (Cited in: Karahan, 2007).

The importance of attitude is due to the effect it may have on the student's achievement, as the results of many studies have shown. Echavez-Solano (2003) emphasized this by stating that positive attitude leads to an enthusiasm to study and learn English. Attitudes can possibly affect learners' achievement and the desire to continue studying in the target language.

The concern on the learners' attitudes towards the target language was emphasized by Gardner (1985:42). He stated that the learners' attitudes towards learning another language play a key role in enhancing and motivating them to learn that language. This, in turn, affects on their performance, too.

The researcher reviewed many studies concerning attitudes towards English language Abidin, et al. (2012) , USHIDA(2005) **,**Villarroel(2011) .He concluded that students' achievement in English as a second language is related to their attitude toward English.

In Palestine , as well as in the most of Arab countries, English has been the dominant foreign language in the Curriculum of education. English has been introduced as a compulsory subject from Grade 1 to grade 12 in the schools. Moreover, English learning process extends through primary school, secondary schools, and university.In fact, the learning of English in Palestine has been on the spotlight for years and now occupies the attention of many of its people. The progress of English language education in Palestine in the last decade is probably due largely to the strong and growing conviction of the government that English competence and computer skills are necessary for the younger generations in the twenty-first century. In brief , mastering English language is the important factor to success in many fields of life.

In order to investigate students' attitude towards English language the researcher prepared a scale (the attitude scale) which includes the following domains:

- attitudes towards enjoying English language;
- attitudes towards the nature of English language;
- attitudes towards learning English language;
- attitudes towards English language teacher and methodology;

Summary

This part dealt with the theoretical framework of this study. It discussed three titles: vocabulary, puzzles and students' attitude towards English language .The researcher began the part talking about the vocabulary, in general . The researcher concentrated on the concept of vocabulary and its definitions, types, techniques of teaching and its importance in the language itself. Furthermore, the researcher discussed the puzzles and their definitions, the history of puzzles ,their types and the importance of using puzzles in teaching .In addition, the researcher presented attitudes and its definitions ,attitudes and achievement, attitudes and motivation ,then discussed students attitudes towards English language.

Section IV Previous studies

This section investigates the findings of previous studies relevant to the topic of the current study. These studies can be classified under three domains:

The first domain includes studies that related to vocabulary achievement and retention .

The second domain tackles studies that examined the effect of puzzles in teaching.

The third domain investigates studies that clarified students attitudes towards English language .

1-Studies related to vocabulary achievement and retention .

Kieffer,,et al(2012)

This study is designed to test a multi-dimensional model of English vocabulary knowledge for sixth-grade students from linguistically diverse backgrounds (n = 584). Participants included language minority students learning English as a second language (L2) and students who learned English as a first language (L1). Students were assessed on 13 reading-based measures tapping various aspects of vocabulary knowledge. Using multiple-group confirmatory factor analysis, It was found that vocabulary was comprised of three highly related, but distinct dimensions--breadth, contextual sensitivity, and morphological awareness. This three-dimensional model was found to hold for L2 learners as well as L1 speakers. Although the L2 learners were statistically significantly lower than the L1 students on all three dimensions, the magnitude of the difference for morphological awareness (d = 0.37) was somewhat smaller than that for vocabulary breadth (d = 0.52) and contextual sensitivity (d = 0.49). Results were similar for a sub sample of Spanish-speaking L2 learners and for the full sample of L2 learners from various home language groups. Findings support a distinction between word-specific and word-general knowledge in understanding individual and group differences in vocabulary.

Aghlara(2011)

In the present study, the effect of using a digital computer game and its role on promoting Iranian children's vocabulary learning was investigated. In the experimental group, the SHAIEx digital game was used whereas in the control group, English vocabulary was taught through traditional methods. At the end of the teaching period, the participants' performances were compared. The results indicated that the mean score of the children in the experimental group was significantly higher than those in the control group, indicating the positive effect of using digital games in teaching English vocabulary to children.

Al-Zahrani(2011)

The current study aims at investigating the effectiveness of keyword-based instruction in enhancing English vocabulary achievement and retention of intermediate stage pupils with different working memory capacities. The study adopts a quasi experimental design employing two groups (experimental and control). The design included an independent variable (keyword method), two dependent variables (vocabulary achievement and vocabulary retention) which were measured by the achievement vocabulary test and a classification variable (working memory capacity) which was measured by working memory tasks. The sample of the study consisted of 3rd intermediate grade pupils from two intermediate schools in Taif (N=96). The pupils were divided into two groups experimental and control. The experimental group (N=47) was taught the vocabulary of the first term of English language book of 3rd intermediate grade through keyword method. The control group (N=49) was taught the same vocabulary through traditional method. The two group's scores were analyzed using Two-way ANOVA. Results revealed that keyword method had a positive effect on the learners' vocabulary achievement and retention. Also, results showed that pupils with high WMC were better than pupils with medium and low WMC in both vocabulary achievement and retention. Finally, the results revealed that the interaction between keyword method and WMC had a main effect on both dependent variables (Vocabulary achievement and retention).

Cheng(2011)

The purpose of this study is to investigate the impact on Taiwanese students' English vocabulary retention, task difficulty ratings, and task utility ratings under varied task load conditions (reading only, fill-in-the-blanks, writing) when controlling for level of trait anxiety. The task loads were based on the Involvement Load Hypothesis. The effects of task load on state anxiety were also examined. The participants in this study were 111 Taiwanese students, who were not English majors, from three English classes taught by the same teacher and using the same textbook at a university located in Northern Taiwan. The research findings included the following: students in the reading only group (with the lowest task load) generated higher vocabulary retention than the fill-in-the-blanks group (with a medium task load) when controlling for trait anxiety; after the learning tasks were completed, all students reported reduced state anxiety; the reading only group, which had the lowest task load, reported the highest difficulty ratings; students did not report higher utility ratings in higher task load conditions compared to lower ones when controlling for trait anxiety. One implication of this study is that the Involvement Load Hypothesis was able to distinguish between the lowest and highest load tasks, but did not adequately describe the moderate task.

Whisenand & Dunphy (2010)

The authors suggest using an alternative teaching methodology to impart knowledge regarding information systems phraseology and vocabulary. Specifically, a series of crossword puzzles or scrabbles are used to present information system (IS) terminology to students in an introductory business information systems course. The puzzle terms and answers are selected from a computer concepts textbook used by all students. The terms or phrases used are representative of those the students will need in later IS courses and IS related careers. Reported classroom results are given using statistical testing and qualitative feedback indicating that the exercises were both well received and effective as a conduit for learning.

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Hall (2010)

This dissertation investigates the importance of vocabulary development in kindergarten. The purpose of this qualitative case study design was to explore and describe how kindergarten teachers in 1 Midwestern U.S. suburban school district perceive and value the task of teaching vocabulary. The results were based on data collected from 2 focus group interviews and 8 follow-up 1-on-1 interviews from kindergarten teachers in the district. The teachers specified that vocabulary instruction does definitely exist in their classrooms. One significant finding was the acknowledgment by the core searchers that socioeconomic status is not a consideration for children's abilities to increase vocabulary capacity. There is no distinction in children's learning curve related to vocabulary between children who are poor or children who are wealthy. These findings provide new information regarding learning and socioeconomic status. A child's ability for vocabulary knowledge and learning may not be based on the socioeconomic status of the family. This study also identified the teachers as their own resource for sources and programs to provide vocabulary instruction for their students instead of searching for teachers or curriculum specialists to assist them with strategies. The classroom kindergarten teacher has an innate sense and ability to create authentic vocabulary-rich environments that are indicative to the children they serve to promote vocabulary enhancement.

Endo(2010)

This study examines the effects of topic interest on the vocabulary learning and retention in third grade students with and without learning disabilities. All students learned 12 unfamiliar vocabulary words in three different vocabulary learning conditions: High-interest topic vocabulary, low-interest topic vocabulary, and vocabulary words without a thematic topic. Harry Potter represented the high-interest topic condition, Ancient Mesopotamia represented the low-interest topic condition, and the No Topic condition consisted of unassociated words without a thematic topic. Two studies were conducted. Both studies used the same methodology, but were conducted on a different student population. The first study involved third grade

students without learning disabilities, and the second study compared the same students from the first study to third grade students with learning disabilities. Students without learning disabilities (NLD) who showed high ability in reading comprehension on pretest showed effects of topic interest on vocabulary retention. These students learned vocabulary items better in the high-interest condition, and performed equally in the low-interest topic and No Topic conditions. However, students with low reading comprehension on pretest showed no effect of topic interest on vocabulary retention, and students with learning disabilities (LD) demonstrated a similar lack of effect. The low comprehension students and LD students demonstrated a superior performance on the No Topic condition compared to the high or low-interest condition, suggesting a less clear cut relationship between topic interest and vocabulary learning in these groups. In addition, reading comprehension and word knowledge were significantly correlated in NLD students, and each was significantly correlated with their vocabulary retention. These results give evidence to the strong relationship between reading comprehension and word knowledge, and demonstrate that these two factors play a significant role in students' vocabulary learning. Also, the type of task significantly affected how topic interest impacted students' vocabulary retention. In conclusion, results showed that topic interest can be an important factor in determining how well students retain vocabulary words, but this tends to be true for students with higher reading comprehension ability and is dependent upon the type of task given.

Stager(2010)

The purpose of this study is to investigate the effects of using flashcards to develop automaticity (rapid word recognition) with key vocabulary words and phrases in order to improve fluency and reading comprehension skills for participants with and without diagnosed learning disabilities enrolled in a high school Spanish course. Eighty-seven students without learning disabilities and six students with learning disabilities (n = 93), all between 16 and 18 years of age, (sample of convenience) were given single-word and phrase training within the context of the curriculum. Participants learned to decode key words and phrases quickly and accurately in Spanish using flashcards. Once training was determined to be sufficient, as measured

through Curriculum-Based Measures (CBM's), reading comprehension scores were then obtained through end-of-unit exams. One-Way Within Subjects ANOVA/Mean analysis was conducted to explore the differences between rapid word decoding rates and reading comprehension scores. ANOVA (p less than 0.05) analyses comparing the CBM's of automaticity (administered just prior to the exams) with end-of-unit comprehension exams found no statistically significant difference between the two. Results suggest that an emphasis on the development of automaticity (rapid word recognition), within the context of the curriculum, benefits all students of foreign language study. The findings indicated that students with learning disabilities were able to achieve comprehension rates comparable to students without learning disabilities as a result of the intervention.

Huang(2010)

This study investigates the longitudinal development of L2 vocabulary by 17 individual adult L2 learners in an English as a second language (ESL) instructed context over one academic year, combining a longitudinal case study design with two cross-sectional comparisons in order to enhance (a) detailed documentation addressing the idiosyncrasy of L2 vocabulary learning and (b) comparability across previous and future research. The research design and theoretical framework emphasized the incremental and multidimensional nature of L2 vocabulary development. Seventeen L2 learners from intermediate ESL writing courses at a U.S. university were recruited for participation in a one-academic-year investigation for the longitudinal case study. They contributed triangulated data through four semi-structured vocabulary interviews designed after Schmitt (1998), two standardized vocabulary tests of vocabulary size (Nation, 1990) and suffixation knowledge (Schmitt & Meara, 1997) administered in a pre-post test design, and written assignments produced throughout the research period. A hierarchical cluster analysis and other analytical and graphic display techniques from Dynamic Systems Theory (DST, e.g., Larsen-Freeman, 2006) were applied to the interpretations of individual L2 students' development. For the purpose of providing a backdrop on the instructional context in which participants of the longitudinal case study were situated, cross-sectional data were collected involving vocabulary tests ($n = 123$) and

a learner corpus of placement essays (n = 150) within the same instructional context as the longitudinal case study. The findings showed that individual learners exhibited growth in meaning, grammar information, and collocation knowledge, but no change in spelling and association knowledge. The development in meaning, grammar, and collocation knowledge were found to be supportive of each other. In addition, improvement of vocabulary size mainly came from low-frequency words while advancement of morphological knowledge was manifested in productive derivational knowledge. Investigation into writing assignments collected over the research period suggested that L2 learners' opportunities for vocabulary output and development were affected by instructional contexts in which participants were situated. The study contributes insights for the development of theoretical models of L2 vocabulary learning. It also demonstrates the need for adopting multiple methodologies in the same design and for emphasizing ecological validity in L2 vocabulary development research

Robson (2009)

The purpose of this study was to examine the effects of four instructional methods--context clues, definition, elaboration technique, or word parts and word families--on the vocabulary growth and acquisition of adults enrolled in a community college developmental reading course. The study investigated whether performance in any or all of the four instructional methods was moderated by age or language. Seventy-three respondents participated in the study. Participants were enrolled in one of five sections of College Reading Preparatory II (REA0002) offered in the Spring of 2009 at Indian River State College in Fort Pierce, Florida. All five sections of REA0002 were taught by the same professor, a tenured faculty member, chair of the developmental reading department and Associate Professor of Developmental Reading at Indian River State College. The instruction and tests in all five sections of REA0002 were consistent with the research design which insured continuity and consistency in the use of the four instructional methods. All participants received the same treatment and quizzes. During the course of the study, participants first received a pretest, then the treatment or instruction, followed by an instructional quiz, and a delayed post-test was administered at the end of the study. An analysis of the data,

which included the pretest, instructional quizzes with four quizzes independently and then combined for an aggregate score for an immediate post-test, and the delayed post-test, yielded mixed results. The four instructional quizzes independently showed definition instruction to have the highest positive impact on student learning. In a measure of gains from pretest to instructional quizzes immediately after treatment, significant improvement in student learning was found only with word parts instruction. In a measure of performance from pretest to immediate post-test (aggregate score of instructional quizzes) there was a significant gain in students' vocabulary competence, and from pretest to delayed post-test there was a significant decrement in students' vocabulary competence. Age and language moderated vocabulary competence. Further tests of equivalency were mixed and should be interpreted cautiously, as there were a very small number of students in the group of 25 years or older and non-native English speakers.

2. Studies related to puzzles in teaching.

Fotovatnia & Namjoo (2013)

To help learners find language classes, especially vocabulary lessons more interesting, and to achieve more, the researcher used word games, which are generally engaged as a source of entertainment to serve an educational purpose, as instructional tools in practicing newly taught words. Moreover, the researcher compared the effects of two types of word games (cooperative versus competitive) on learners` motivation, attitudes toward their teacher, class atmosphere, and vocabulary achievement, in order to investigate which game type was more successful in this field. In order to achieve this goal, this study has been done on 60 male English learners with the age range of 17-19 years old. Among these learners, 40 were considered as the experimental (in 2 different experimental groups), and the other 20 learners as the control. To gather data, these instruments have been used: a motivation questionnaire, a questionnaire about word games, a classroom atmosphere questionnaire, vocabulary tests, and teacher`s interview. Besides, 2 different categories of word games (cooperative versus

competitive games) were used in this study to compare their effects on EFL vocabulary learning. The results show that both types of word games affect learners` vocabulary learning, increase their motivation, change their attitudes toward their teacher, and also create a positive atmosphere in their classroom. Moreover, through comparing effects of these games, the researcher found out that for some learners, cooperative word games could affect their vocabulary learning by increasing their motivation and providing a positive atmosphere in their classroom, while for some others, competitive word games were more effective. Consequently, it cannot be stated exactly which type of these games were more successful in this study. Curriculum designers, English textbook authors, and those who train EFL teachers can use these findings and improve English education and learning in words in English classes in Iran. It other words, it is suggested to use word games in English classes to increase learners` motivation, vocabulary learning, and also to provide a more positive atmosphere in the classroom.

Mubaslat(2012)

This study attempts to determine the role of educational games on learning a foreign language, and to compare games with more traditional practices as effective learning tools on the basic educational stage students at governmental schools in Jordan, an experimental research is conducted using three groups out of six randomly. To determine the relationship between learning a foreign language and educational games among the participants, a one way Analysis of Variance (ANOVA) is performed based on achievement levels. For the relation between educational games and learning a foreign language a Pearson's Correlational analysis is used. The results of the post test for the experimental group are so better than the controlled one which show that games have a good effect on improving the achievement for the primary stage and to create an interactive environment. It is recommended to use games since they are very effective especially for the primary stages in teaching a second language and games are helpful for the teacher as a procedure for language acquisition.

Chen et al(2012)

The paper provides an account of learning arithmetic skills in a more interesting way through the collaborative playing of a puzzle game. 83 students in three classes in Grade 4 were asked to solve arithmetic problems with three different methods: via playing an adapted "cross number puzzle" game on Group Scribbles (GS) collaboratively, via playing the same game on GS individually, and via the traditional method of teaching and learning, i.e. with no games at all. Analysis of the pre and post learning achievement data reveals that the two classes who played the game performed better than the control class, with the collaborative class students achieving better than the individual class students. By playing the game, low-ability students, in particular, made the most significant progress in arithmetic capability and in building up their confidence in doing arithmetic calculations.

Agarwal & Saha (2011)

This paper highlights the design of a chemistry based puzzle game. The design of the game is meant to teach basic concepts of chemistry related to covalent bonds. The area of Educational Technology is still not so developed for young learners. An interactive technology is required for learning effectively and efficiently. The result is Atoms to Molecule (A2M). In A2M the environment of the levels are designed as such a player will have complete feel of chemistry lab. This game tries to intact fun with education. In this paper we are trying to highlight the features of chemistry objects which are used in our game. While teaching the basic concept of Chemistry, like bonds between atoms and how molecules are formed teacher usually gives examples to define the formation of bonds. However, the concepts of atoms and molecules are difficult for students to imagine. This game A2M has clearly presented the concepts lying behind the formation of bonds, game rules and simple game levels is chosen as the teaching aid along with a fun puzzle game**.**

Atawi(2011)

The purpose of this study is to investigate the effect of using word games on first grade students' achievement in English vocabulary in Al Muthana bin saad school for boys , and Tahfeeth Al Quran school for girls in Tabouk city in Saudi Arabia. To achieve the purpose of the study , a pre/post test was constructed to measure students' level in English vocabulary .The sample of the study consisted of 178 first grade students;(86) male and (92) female students during the first semester of the academic year 2011.

The sample of the study was distributed into four groups (two female groups (experimental and control) and two male groups (experimental and control).The experimental groups were taught English vocabulary using games while the control groups were taught using the conventional method. The subjects were 44 male students for the experimental group and 42 male students for the control group , while the female students for the experimental and control group were 47 and 45 respectively.

Descriptive statistical analyses were used (means and standard deviation) for the pre and post- tests of students' English vocabulary. Comparison statistical methods were used Two Way ANOVA analysis of variance to make a comparison between the control and the experimental groups and gender variable. The findings of the study indicated that there were statistically significant differences in the post- test between the control and the experimental groups in favor of the experimental group, and there was no statistically significant difference in the students' achievement due to gender.

The researcher concluded some recommendations to reinforce the effect of using games for teaching English vocabulary on students' achievement in English vocabulary such as conducting further studies on other populations and for a longer period of time.

Alahmadi(2010)

This study aimed to identify the impact of using teaching games on the primary sixth graders' acquisition of the alphabet and vocabulary contained in their English language school subject. This is a quasi-experimental study, and hypotheses had been tested through the experimental and control groups .The study population was comprised of primary governmental schools' sixth graders of the boys' education administration in the Jeddah government during the first academic term of 1429-1430 AH).The sample of the study was selected at random from the sixth graders of one of the chosen primary schools (prince Metab primary school) at Jeddah governorate. To select and decide which one of the two classes (B) and (c) were the experimental and control groups , the researcher applied the principal of randomization . The experimental group 25 pupils and the control one 25 pupils. The results of the study indicated that there were statistically significant differences between the mean scores of the experimental and control groups in their achievements of the English vocabulary in behalf of the experimental group. The study recommended the need for English teachers and other teachers generally to utilize instructional games and emphasize their importance .

Alemi(2010)

This study investigates the role of using word games in expanding the learner's vocabulary. In so doing, an experiment using five word games, named Twenty Questions, Charades, Definition Game's, Passwords, and Crossword Puzzles respectively was conducted. The participants were selected randomly from a male/ female group of third grade junior high school students studying at a private school. First, a standardized test was administered to 100 students out of which 60 almost homogeneous students were selected and randomly divided into two groups: experimental and control. Both groups were taught words using traditional methods, however, the experimental group received word games as a treatment at the end of each session. Finally, a vocabulary test was administered to both groups to determine

the differences between them. The score obtained from the groups were compared through independent t-test. The calculated t exceeded the t-critical value, confirming the positive effect of word games on expanding learners' vocabulary.

Al-Harbi (2010)

The objective of the study is to reveal the effectiveness of instructional electronic games on direct understanding , and the survival of the impact of learning in the lessons of multiplication of mathematics in the second primary school , in Medina .

The study followed a quasi-experimental methodology . Its sample consisted of (36) students . They were selected randomly from second year primary school , in the school of Sanable Al-Medina private primary school . As for the tools of the study , the researcher chose a proper instructional electronic games in teaching multiplication lessons . Moreover , he prepared a test in multiplication lessons . He applied it after verification of its sincerity and firmness . As for the duration of applied the experience , it lasts for ten weeks , including the configuration of the experiment , the pre-test , application of the study tools and the dimensions and delayed test . The study came to some results as follows ;

1- There are statistical differences at the level of significance (0,05) among the averages of the students of the experimental group and the control group in the delayed test of understanding after fixing the pre-understanding at the knowledge level of Bloom , remembrance level and the test as a whole , in favor the experimental group .

2- There are statistical differences at the level of significance (0,05) among the averages of the students of the experimental group and the control group in the delayed test of understanding after fixing the pre-understanding at the knowledge level of Bloom , remembrance level , understanding level and the test as whole in favor the experimental

Bouteliaten (2010)

This research work aimed at investigating the effectiveness of using crossword puzzles as a teaching technique to enhance first year English students' knowledge of new foreign vocabulary items. In this respect, the learner-centered method can be applied to our study in which the learner can practice crossword puzzles to improve their knowledge of vocabulary and the teacher is merely a guide. To achieve such an aim, we relied on two means of research: the teachers' questionnaire and the test. First, the teachers' questionnaire was to collect data about the techniques they use when teaching new words in their lessons and their concerns about the affective side of the learner, whether they incorporate crossword puzzles as a teaching strategy to teach new vocabulary items in their classes. Second, for our study, a pre-test and a post-test were organized. In the pre-test, students were supposed to fill-in themed crossword puzzles with the appropriate word (down and cross). The main aim is to teach students new words, and to see the extent to which students are able to decipher the meaning of the clues, as well as the degree of students' familiarity with them. In the post-test, students were asked to write a paragraph about the puzzles' theme. In this respect, the goal intended is to see the extent to which students are able to make a link between the two activities. It is also to measure the degree of influence of using crossword puzzles for the acquisition of new words. The result showed that the learners proved to have learnt nearly all the unfamiliar vocabulary items that they have dealt with in the pre-test (puzzles). They have also manifested a great enthusiasm in this type of material while teaching them. Accordingly, it is recommended that puzzles should be incorporated in teaching materials.

Merrick, K. E. (2010)

This study describes an adaptation of puzzle-based learning to teaching an introductory computer programming course. Students from two offerings of the course--with and without the puzzle-based learning--were surveyed over a two-year period. Empirical results show that the synthesis of puzzle-based learning concepts with existing course content improves students' learning experience by increasing their interest and participation in the course and developing their critical thinking skills.

Hamdan(2009)

This study investigates the effect of using linguistic games on developing the skills of reading comprehension for the 7th graders in Gaza. The researcher had adopted an experimental approach. Where the sample of the study consist of 59 male students from Al-bureij prep boys school (A) and 81 female students from Al nusierat prep girls school (B) in the middle governorate. The linguistic game method (puzzle word game-True/false game-Headless sentence game-compete game) was used in teaching the experimental group while the traditional method was used with the control group in the second term of the school yeas (2009-2010).An achievement test was designed and validated to be used as a post – test. The results of the study indicated that there were statistically significant difference in the 7th basic grade development in the skills of reading for meaning in English due to the method in favor of the linguistic games strategy. It also showed that there were statistically significant differences in the 7th grade development in the skills of reading comprehension due to gender in favor of the female experimental group. In the light of the findings the study recommended the necessity for implementing linguistic games in teaching reading bring about better outcomes in students achievement in English language.

Nassar(2009)

This Study aims to identify the impact of using puzzles in development of critical thinking in mathematics and the tendency towards it of the basic fourth graders in Gaza. The study sample consisted of (82) students, were selected from a purposive Beit Lahiya basic for boys, "b", and the sample was divided into two groups, experimental group consisted of (41) examined the student using mathematical puzzles, and a group consisting of a female (41) students studied in the traditional manner, for the purposes of the study, the researcher prepared the following tools Test to measure critical thinking skills.A questionnaire to measure the tendency towards mathematics. The results of the study showed that there were significant differences at a level ($\alpha = 0.01$) between the average levels of pupils in the pilot group to test the critical thinking in mathematics and average peers in the control group for the experimental group. There were significant differences at a level ($\alpha =$

61

0.01) between the average levels of pupils in the experimental group in the measurement of the tendency towards mathematics and average peers in the control group for the experimental group.

Harb (2007)

This study explores the effectiveness of educational games on the sixth graders' achievement of English language in Gaza southern governorates. In addition, this thesis aimed at familiarizing English language teachers with basic principles of designing, selecting and using games in teaching English language. The researcher used the experimental approach. The sample of the study was 94 male students from a school for boys and 98 female students. Data were collected by an achievement test of five scopes with 50 items. It was used as a pre and a post test. So, the experimental group was taught through the educational games strategy, while the controll one was taught by the traditional method. The results of the study indicated that there were statistically significant differences in the sixth graders' achievement of English language due to the method in favor of educational games strategy. Besides this, it showed that there were statistically significant differences in the sixth graders' achievement of English language due to gender in favor of the female experimental group. In the light of the study, many recommendations were suggested. The recommendations were suggested to different people such as curriculum designer, decision makers, supervisors and English language teachers.

Michalewicz (2007)

The study addresses a gap in the educational curriculum for engineers by proposing a new course that aims at getting engineering students to think about how to frame and solve unstructured problems. The idea is to increase the student's mathematical awareness and problem-solving skills by discussing a variety of puzzles.The study makes an argument that this approach – called Puzzle-Based Learning – is very beneficial for introducing mathematics, critical thinking, and problem-solving skills.

Ebong (2004)

The study aimed to determine whether the use of indigenous techniques of communication can have a positive impact on the enthusiasm of the learner of English as a foreign language in Cameroon This study discovered that the learners whose teachers used indigenous techniques like folktales, songs, role-play, riddles and proverbs in their lessons enjoyed the lessons better and attempted to practise the use of the language for communication. Indigenous techniques of communication mean techniques like role-play, songs, the telling of folktales, riddles and proverbs that are used in most indigenous societies either to help children acquire a first language or for entertainment.

This study is a questionnaire-based project carried out in six secondary/high schools in Cameroon. It has become evident from this study that very few teachers, if any at all, use role-play, songs, folktales, riddles and proverbs in their language lessons. The results showed that most of the learners felt comfortable learning with these techniques but that there was a general absence of them in the teaching/learning that was carried out in Cameroonian schools.

Levitin & Papalaskari (2002)

The study investigates using puzzles to illustrate or reinforce key concepts is not new for computer science education. There has been no attempt, however, to collect and systematically catalogue puzzles illustrating each algorithm design technique. The advantages of using puzzles and puzzle-like problems for teaching design and analysis of algorithms - Solving puzzles helps in developing creativity and problem solving skills -- the qualities any future CS professional should strive to acquire. Puzzles usually attract more interest on the part of students, making them work harder on the problems assigned to them. Puzzles can be very helpful for teaching different aspects of algorithmic.

Abd Al-Naby(2001)

The study aimed to investigate the effectiveness of picture puzzles in teaching science on developing picture reading skills and achievement for seventh graders. Experimental approach was used and the sample of the study consisted of 80 student distributed into two groups; one experimental group consisted of (40) students from Al-Farooq Omar Preparatory school and control group consisted of (40) students from Al-Nahda Preparatory school. The study tools were a test to measure picture reading skills and a test to measure knowledge style (independent, dependant) the study results indicated the great effect of picture puzzle on the achievement for students.

Mariyati (2001)

The study investigates the use of Crossword Puzzle in improving the reading comprehension achievement.And it approved that the use of Crossword Puzzle could improve the reading comprehension achievement of the first year students at SLTP 2 Balung in the academic year 1999/2000 while the standard score of the school is 65 and it is proved by the increasing point from the first cycle implementation to the second cycle implementation. In the first implementation the mean score is 65, 21 and in the second implementation the mean score of the reading comprehension of the students is 69, 39. In brief, there's an increase of 4, 15 point from the first implementation to the second implementation. There is evidence that the use of games is useful in teaching vocabulary because it raise the student's vocabulary achievement.

Lewis et al (2000)

This study aims to measure kids' capacity for symbolic play. The study was conducted on British children, aged 1-6 years. Kids were asked to perform such symbolic tasks as substituting a teddy bear for an absent object. Researchers found that kids who scored higher on a test of symbolic play had better language skills— both receptive language (what a child understands) and expressive language (the

words she speaks). These results remained significant even after controlling for the age of the child.

Wyver& Spence(1999)

A series of three studies was conducted to examine the relationship between specific forms of preschoolers' social and pretend play and divergent(figural and semantic) and convergent problem solving. Naturalistic and experimental designs were used to provide clearer account of relationship and to challenge assumption of single direction of influence. Kids given training in pretend play showed an increased ability to solve divergent problems. And the converse was true as well: Kids trained to solve divergent problems showed increased rates of pretend play. Results support complex reciprocal causality model in which development of divergent problem solving facilitates development of play skills and vice versa.

Love(1988)

This study investigated whether the use of reading games would result in greater improvement in the reading skills scores of a sample of fourth grade students as compared to a control sample taught by a traditional basal method of instruction. The subjects, 20 heterogeneously grouped students (10 for the experimental group and 10 for the control group) in a lower middle class urban school who were reading on the fourth grade level, were administered the comprehension section of the MacMillan Achievement Test in order to determine their reading weaknesses. After an 8-week instruction period, a posttest was given to determine how much growth had occurred during the period of the experimental treatment. Results indicated that the children in the experimental sample showed greater improvement in reading ability than the control sample, although the difference between the means of the two samples was not statistically significant.

Otte (1986)

This study investigates the use of riddles beginning with How, When, and Why to see which question type was easier for low-achieving students to answer correctly, and to see if practice could increase the number of correct answers chosen. For comparison purposes, scores were also collected for an average-achieving group

without practice, to see if practice could decrease the difference between low and normal achievers. Subjects for the practice group were 48 second and third graders at an inner-city school who were enrolled in a pull-out reading program for students reading below grade level. Subjects for the comparison group were 42 children in the same grades at the same school reading at grade level. Forty-eight riddles (16 of each type) were used. The riddles were read by the examiner to the practice group who would have had difficulty reading them alone. Comparison of pretest and posttest results indicate that How riddles were the easiest to answer for both groups, and When riddles were easier for both groups to answer correctly than Why riddles. The low achievers' response to the riddles was very positive, and the fact that this practice group performed as well as they did suggests that riddles may be a useful tool in refining language concepts in reading.

3. Studies related to students attitudes towards English language .

Al Noursi(2013)

This study outlines the results of a survey that was carried out, to identify Applied Technology High School students' attitudes towards learning the English language and to investigate whether the students' attitude is affected by the teacher's nativity. The study sample consisted of 196 students at the Applied Technology High School (ATHS). A questionnaire was used for data collection. The findings showed that the vast majority of the subjects of the study had positive attitudes towards learning the English Language. In addition, the findings revealed that teacher's nativity (native speaker vs non native speaker of English) did not influence students' positive orientation toward the English language.

Abidin et al(2012)

This study investigated Libyan secondary school students' attitudes towards learning English in terms of the behavioral, cognitive and emotional aspects. It also explored whether there is any significant difference in the students' attitudes towards

English language based on their demographic profiles i.e., gender, field and year of study. A total of 180 participants in the three study years from three specializations of Basic Sciences, Life Sciences, and Social Sciences took a questionnaire as a measuring instrument. Regarding the three aspects of attitude i.e., cognitive, behavioral, and emotional, the participants showed negative attitudes towards learning English. On the demographic profile, there were statistically significant attitudinal differences regarding gender and field of study but not year of study. Based on the research findings, some recommendations are finally presented. The respondents' obvious negative attitude towards English may lead to conclude that they are not well aware of the importance of English and learn it as a compulsory subject. Briefly, attitude concept is considered as an essential component in language learning. So, a positive attitude should be the umbrella of language learning. EFL teachers should respect and think about students' feelings, beliefs and behaviors before the cognitive abilities. English curriculum and classroom activities should involve affective aims according to the students' needs and their individual differences to build up positive attitudes towards English. It is so important to study learners' personalities. Cognitive performance can be achieved if the EFL learners possess positive attitudes and enjoy acquiring the target language. For that reason, the affective perspective, especially attitude, should be considered in language research.

Abu-Melhim (2009)

The purpose of this paper is to determine what attitudes college students at Irbid University college in Jordan have towards learning English as a foreign language. Over the past several decades, there has been a growing interest in learning the English language in colleges and universities throughout Jordan. However, the real reasons for college students choosing English as a major do not seem to be clear. The researcher felt the need to investigate such reasons as well as describe the attitudes that students have towards learning English and how these attitudes might impact the outcomes of the learning process. The 45 female students involved in this project were from Irbid University College. The students were asked to explain why they wished to become English teachers. Notes were taken during these interviews and the responses were recorded. A student survey was designed and distributed to all 45 female students at the college and detailed instructions were given. The students'

reasons for studying English revealed a wide array of attitudes and motivations. Surprisingly, almost half of the students exhibited negative attitudes towards learning English and entering the teaching profession. Other students demonstrated more positive attitudes.

Al-Bustan & Al-Bustan (2009)

This study is performed by conducting a survey analysis to investigate students' attitudes and preferences towards learning English at Kuwait University in non-English major ESL students. The sample size will be roughly 21-22% of a total of 4950 college level English Language learners at Kuwait University where specific English courses are part of the required University curriculum. The results of this survey will thus enable us to review some causes that may have hindered University English learning in the past, and focus on students' perspectives about learning English. One of the by-products of this study will be to illustrate students' academic preference within the Language process, which in return will assist us as educators to promote learning motivation. Researchers, ESL teachers and administrators need to consider the fact that they need to have keys for knowing their students' attitudes and preferences towards learning English for motivation purposes. This research will provide some of the most significant keys available.

Mahfouz & Ihmeideh(2009)

This study aims to investigate Jordanian university students' attitudes towards using video and text chat discourse with anonymous native speakers of English to improve their English proficiency. To achieve this aim, a questionnaire was designed. The study sample consisted of 320 university students enrolled in two Jordanian universities. Results revealed that students' attitudes towards using video and text chat with English native speakers for improving their English language skills were higher concerning speaking skills, followed by listening skills, reading skills and finally writing skills. Furthermore, results indicated that there were statistically significant differences amongst students, which are attributed to their gender, the faculty they are enrolled in, the chat messenger mode they use most frequently and their seniority of study at university.

Ates et al(2006)

The aim of this research was to discern the effects of computer assisted English instruction on English language preparatory students' attitudes towards computers and English in a Turkish-medium high school with an intensive English program. A quasi-experimental time series research design, also called "before-after" or "repeated measures" design, was used in this research. As a sample, one group of students (20 female and 10 male) was randomly assigned. The research had two phases: traditional English instruction and computer assisted English instruction (CAEI). The instruments for data collection were a Scale for Attitudes Towards English and a Scale for Attitudes Towards Computers, which were given three times at intervals of two weeks. According to the findings, the students' scores of attitude towards computers and English after CAEI increased significantly. However, the correlations between the increases in the students' attitude scores, their gender, and their monthly income were found to be insignificant. This research design is advised for researchers to see the variation and trend of measurements, in particular contexts in time.

Ushida (2005)

This study investigated the role of students' motivation and attitudes in second language (L2) study within an online language course context (LOL). Students' attitudes and motivation were examined within a socioeducational framework (Gardner & MacIntyre, 1993) while learning contexts were examined based on Dörneyi's (1994) components of foreign language learning motivation. Students' learning behaviors and learning outcomes were used as predictor and criterion variables in a series of quantitative and qualitative analyses. The results showed that students tended to have relatively high anxiety about the LOL course at the beginning of the semester, perhaps due to their lack of familiarity with the specific LOL learning environment. However, students' motivation and attitudes toward L2 study were relatively positive and stable during the course. The findings provided some evidence that motivated students studied regularly and productively to take every opportunity to perfect their language skills. It was also found that each teacher idiosyncratically

implemented the LOL course, thereby creating a unique class culture and affecting students' motivation and attitudes toward studying the L2 in the LOL context. The findings reinforced the importance of students' motivation and attitudes in L2 study and, equally important, the continuing critical role of the teacher in technology-enhanced teaching.

Ardeo(2003)

The present study reflects on the socio-cultural and sociopolitical situation in the Basque Country and its relationship with performance in English as L2 or L3. Thus, a research was carried out by testing matched groups of Monolingual (Ml) (Spanish) versus Bilingual (Bl) (Basque/Spanish) university students, acquiring English for Specific Purposes (ESP) within the following fields: Engineering .mechanical branch., Business Administration, and Nursing. Participants were tested on acquisition of specific technical vocabulary from their fields of study, and they were invited to complete a questionnaire on attitudes towards English. The Bls as a whole outperformed slightly the Mls, suggesting that Bls. immediate/academic aims are somewhat more easily achieved but the differences were not statistically significant. As far as their attitudes towards English are concerned, the differences between Mls and Bls were not significant either, both groups showing overall positive attitudes towards English.

Alshwiah (2009)

The current study aimed to investigate the effects of a proposed blended learning strategy in teaching medical vocabulary at Arabian Gulf University (AGU) on some outcomes of the learning process. The study attempted to assess the effects of the proposed strategy on pre-medical students' achievement, attitudes towards the English language, and their satisfaction with the unit.
The study sample consisted of 50 students who scored less than 60% in AGU English Language Entry exam. The sample was randomly divided into two groups; 22 students in the control group and 28 in the experimental group. The research instruments included: AGU English language unit exams in English 151, attitude

towards English language and satisfaction with the unit scales that were developed by the researcher.

Data analysis revealed that, concerning achievement and attitude towards the English language, there were no statistically significant differences between the experimental and the control group except with regard to the second midterm exam total score where the control group performed significantly better than the experimental group. The results also indicated that the experimental group members demonstrated high degree of satisfaction toward the online unit in three dimensions of the scale and medium satisfaction in one dimension. It was argued that though students were satisfied with the online unit, lack of vocabulary improvement was due to lack of administrative support.

Shams(2008)

This study attempts to investigate gender wise students' attitudes, motivation and anxiety towards the learning of English as a second language in the multilingual context of Karachi, Pakistan. The study adapts a survey questionnaire from Gardner's 'Attitude Motivation Test Battery,' to explore attitudes (English language and learning), motivations (intrinsic and extrinsic) and classroom anxiety of grade 8th students in a private secondary school. The survey findings of 77 students (40 males and 37 females) highlight that students have affirmative attitudes and high level of enthusiasm towards English language and its learning. The findings also illustrate a higher degree of extrinsic motivational goals attached to the student's language learning outcomes and future achievements comparable to intrinsic ones, irrespective of the gender. Overall, the results emphasize girls to have a slightly higher degree of positive attitudes and motivation comparable to the boys. The overall classroom anxiety demonstrates student's moderate responses with relatively high standard deviation, highlighting that anxiety levels vary from student to student. The study concludes with educational implications and limitations.

Bernaus et al(2004)

This study investigated the effect of the cultural background of immigrant children on affective variables in learning three different languages. Participants were students in secondary multicultural classrooms in Spain. A total of 114 students, aged12 to 16, answered a questionnaire based on Gardner's Attitude=Motivation Test Battery assessing their attitudes, motivation and anxiety towards learning Catalan, Spanish and English. In addition, the students also completed self-ratings of their language achievement in each of the three languages.

The results demonstrated that there were few differences attributable to cultural background. Asian students were lower in instrumental orientation than African students, and had more positive attitudes towards learning the languages than Spanish students. There were many more differences attributable to the language being studied. Overall, affective variables were more positive for both Spanish and English than for Catalan, with little difference between Spanish and English. Cultural background interacted with language studied to influence scores on the measures of parental encouragement and self-ratings of language proficiency. A factor analysis demonstrated that integrative motivation was generally language specific (i.e. three distinct factors were obtained, one for each language), but that orientations, language anxiety and parental encouragement tended to apply generally to the three languages, forming three distinct factors. The results are discussed in terms of the specificity vs generality of some variables to the language being studied, as well as the relative significance of the three languages to the students in this study.

Commentary

Analysis of the previous studies:

There are similarities and differences between this study and the previous ones in many things

The subject of the studies and their purposes:

Most of the previous studies concentrated on the strong correlation between word games (puzzles) and vocabulary achievement such as Fotovatnia & Namjoo's (2013), Mubaslat's(2012), Atawi's(2011), Alahmadi's(2010), Alemi's(2010), Harb 's(2007)

In this study the researcher concentrated not only on the effect of puzzles on vocabulary achievement but the effect of puzzles on developing vocabulary achievement, retention and attitudes toward English.

Methodology

Some of the previous studies used the experimental method as Fotovatnia & Namjoo's(2013),Mubaslat's(2012),Aghlara's(2011),Al-Zahrani's(2011),Atawi's(2011), Alahmadi's(2010), Alemi's(2010), Al-Harbi 's(2010), Nassar's(2009). Hall's (2010) used a descriptive method..

In this study the researcher used the experimental method.

Instruments

The instruments which were used in the previous studies were different from one study to another such as Fotovatnia & Namjoo (2013) used a motivation questionnaire, a questionnaire about word games, a classroom atmosphere questionnaire, vocabulary tests, and teacher`s interview. Atawi(2011) used a pre/post test. In Alemi(2010) the researcher used five word games, named Twenty Questions, Charades, Definition Game's, Passwords, and Crossword Puzzles. In Al-Harbi (2010) the researcher chose a proper instructional electronic games in teaching multiplication

lessons . Moreover , he prepared a test in multiplication lessons . Hamdan(2009) used an achievement test.

In this study the researcher the following instruments to collect the data, an achievement test (Pre ,Post& delayed), an attitude scale (pre & post) to determine the students' attitudes towards English language and teacher guide (puzzles).

Population and Sample

Population and sample of the previous studies were different from one study to another. In Fotovatnia & Namjoo (2013) The study has been done on 60 male English learners with the age range of 17-19 years old. Among these learners, 40 were considered as the experimental (in 2 different experimental groups), and the other 20 learners as the control.Kieffer,,et al(2012) selected sixth-grade students from linguistically diverse backgrounds (n = 584). Participants included language minority students learning English as a second language (L2) and students who learned English as a first language (L1)**.** Mubaslat(2012) applied his experiment on a sample of the basic educational stage students at governmental schools in Jordan, an experimental research is conducted using three groups out of six randomly. In Atawi(2011) The sample of the study consisted of 178 first grade students;(86) male and (92) female students during the first semester of the academic year 2011. The sample of Al-Zahrani(2011) study consisted of 3rd intermediate grade pupils from two intermediate schools in Taif (N=96).The experimental group (N=47) The control group (N=49) . In Cheng(2011) The participants in this study were 111 Taiwanese students,

In this study, the population consists of all tenth graders and the sample consists of (80) students distributed into two groups; one experimental group consists of (40) students and one control group includes (40) students.

Place

All the previous studies were applied in different countries. Fotovatnia & Namjoo (2013) was applied in Iran while, Chen et al(2012) was in Turkey. Mubaslat(2012) was conducted in Jordan. Atawi(2011) study was in Saudi Arabia, Aghlara(2011) was applied in Iran but Alahmadi,(2010) was in Saudi Arabia.

This study is conducted in Palestine, Gaza, The Middle-Area.

Statistical treatments

Regarding to statistical treatments which were used in the previous studies to measure the results, they were varied such as Mubaslat(2012) performed a one way Analysis of Variance (ANOVA) Chen et al(2012) used Independent-Samples T-test, Atawi(2011) used Two Way ANOVA analysis of variance, Alemi(2010) used independent t-test.

In this study, the researcher used T. Test Independent Samples to measure the statistical differences in means between the two groups (the experimental and the control) and used T. Test Paired Sample to measure the differences in the total average score between the post-test and the delayed test of the experimental group.

Commentary on the previous studies

The researcher reviewed a number of the previous studies relevant to the subject of the current study which are expanded the researchers' background and broadened on the subject of the study. It was clear that the above-mentioned studies were divided into three domains. The first handled the studies related to vocabulary and retention. The second showed the effects of using puzzles in teaching and learning. The third displayed those studies which were connected with students attitudes towards English language.

In fact, from the previous studies ,The researcher deduced that most of the studies focused on the positive effect of using puzzles on teaching and learning.

1. Most of the previous studies concentrated on the role of teacher in developing teaching vocabulary.

2. Implementing puzzles on English language and its skills as well as the other school subjects showed positive results on the students' achievement and the students' attitudes towards the teaching-learning process.

3. Results of many previous studies revealed the existence of a general weakness in the achievement of English language at all levels which support the need for this study.

4. Most previous studies indicated that puzzles were an effective technique in formal learning environments which supports, encourages and increases students' motivation.

5. Most of the previous studies indicated that using puzzles can create a positive and effective atmosphere for all students at all levels.

6. The previous studies clarified that using puzzles can make students feel more interested and excited.

7. The previous studies stated that using puzzles draws the attention of students who are less attentive and motivated.

8. The previous studies showed that puzzles can decrease students' fear and anxiety and this can help learner to be more active and more participating.

9. Results of many previous studies showed that puzzles have good effect on learning school subjects.

10. The previous studies showed that puzzles developed the competences of creative thinking and enhance students competence of communication as they enhance their language.

11. The previous studies are considered a guide for the researcher because they help him to design the procedures and steps of the study, and it especially helps in preparing the teacher guide and identifying its components.

12. The previous studies were helpful for the researcher to determine the tools of the study such as: the achievement test (pre ,post & delayed), and the attitude scale. In addition, they helped the researcher to decide the statistical treatments of the results.

Despite all the previous positive results of using puzzles in teaching English and other school subjects, there is no Palestinian study in the field of English language, to the best knowledge of the researcher ,that investigated the effect of puzzles on vocabulary. This study concentrates not only on the correlation between puzzles and vocabulary achievement but also on puzzle-based learning to develop vocabulary retention and students attitudes towards English. This encourages the researcher to conduct this study to investigate the effectiveness of using puzzles in developing tenth graders' vocabulary achievement , retention and attitudes towards English.

Chapter III

Methodology

Chapter III

Methodology

This chapter introduces the procedures followed throughout the study, a description of the methodology, the population, the sample, the instruments used to answer the questions of the study and the experimental design of the study; moreover, it introduces the statistical treatment of the findings of the study.

1. Research Design

The researcher adopted the quasi experimental approach. Two groups were assigned as the participants of the study; the experimental group, and the control group. The research includes four variables; the first variable is puzzles, the second variable is vocabulary achievement, the third variable is vocabulary retention, the fourth is students' attitudes towards English. The experimental group was taught vocabulary via puzzles, while the control group was taught via the traditional method. The experiment lasted for six weeks. Both groups were taught by the same teacher, the researcher.

1.1 Population of the study:

The population of the study consists of all tenth graders at the governmental schools in the Middle-Area Directorate enrolled in the second semester of the school year (2012-2013).

1.2 Sample of the study:

The sample of the study consisted of (80) students distributed into two groups; one experimental group consists of (40) students and one control group includes (40) students. The sample of the study was chosen purposively from Abdul Kareem Al-Aklook secondary School for boys in Dair Al Balah. The sample of the study was randomly chosen from the tenth grade classes and equally divided into two groups, experimental and control.

Table (2)

The distribution of the sample according to the groups

Group	Experimental	Control	Total
No. of sample	40	40	80

Both groups were all in grade ten aged nearly 15. They were chosen from the same school. They were equivalent in their general achievement in accordance with the statistical treatment of their results in the first term of the school year (2012-2013). In this year, all classes were equivalent in their achievement as they were distributed according to their achievement in equivalent classes. A pre-test was used to check the equivalence of achievement between the two groups. Table (2) shows the distribution of the sample.

1.3 The Variables of the Study

The study included the following variables:

1. The independent variable represented in the puzzles

2. The dependent variable represented in the tenth graders' English vocabulary achievement , retention and students' attitudes towards English language.

1.4 Instrumentation

The researcher used three different instruments to achieve the aims of the study:

1-Vocabulary test (Pre – post &delayed test)

2- Students' attitude scale towards English language

3-Teacher guide (puzzles) .

1.4.1 Vocabulary test

The achievement test was prepared by the researcher to measure the students achievement in vocabulary. It was used as a pre test applied before the experiment , as a post test after the experiment and as a delayed test applied two weeks after the post test. (Appendix 1)

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a-The General Aim of the Test:

The test aimed at measuring the effectiveness of using puzzles on developing tenth graders' vocabulary achievement ,retention and their attitudes towards English language.

b-The Sources of Constructing the Test:

The researcher depended on "English for Palestine 10"textbook to form the vocabulary test. Furthermore, he depended on his experience as an English teacher. Moreover, the researcher consulted the English supervisors in west Gaza and middle area governmental schools and some English teachers.

c-The Items of the Test:

The items of the test are distributed into five questions (Fill in the spaces with the right words from the box--Complete the sentences with a suitable word from the same word family- Match the words on the left to the definitions on the right- Work out the following puzzles and find the words- Choose the correct answer)

The first question (**Fill in the spaces with the right words from the box-**).

This question includes six items which evaluate the pupils' ability in developing vocabulary. One mark for each correct answer. Students have to read the words from the box then use them to complete the sentences.

The second question (**Complete the sentences with a suitable word from the same word family -**).

This question includes five items which evaluate the pupils' ability in developing vocabulary. One mark for each correct answer. Students have to read the words between brackets then use same word family to complete the sentences.-

The third question (**Match the words on the left to the definitions on the right**)

This question includes six items which evaluate the pupils' ability in matching Words to their definitions vocabulary. One mark for each correct answer. Students have to read the words and the definitions to match them with the appropriate one .

The fourth question (**Work out the following puzzles and find the words**),

This question includes four items which evaluate the pupils' ability in developing

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vocabulary. One mark for each correct answer. Students have to read the sentences (puzzle) to find out the puzzle.

The fifth question **(Choose the correct answer)**

It includes nine items that evaluate the students ' ability in developing vocabulary. One mark is given for each correct answer. Students have to read the sentence carefully then choose the correct answer.

Table (3)

The Distribution of the Vocabulary Achievement Test

Question	Type	Number of Items	Marks
Question1	Fill in the spaces with the right words from the box	6	6
Question2	Complete the sentences with a suitable word from the same word family	5	5
Question3	Match the words on the left to the definitions on the right	6	6
Question4	Work out the puzzles and find the words	4	4
Question5	Multiple choice	9	9
Total		30	30

d-Instructions of the Test (for students)

The instructions were given to students by their teacher. He has to tell students that the test was designed for a scientific research purpose and it has nothing to do with their marks.

The pilot study

In December 2012, The test was administered to by a pilot sample of (30) eleventh graders in Abdul Kareem Al-Aklook secondary School for boys in Dair Alballah, who have the same characteristics of the study sample. The results were recorded and statistically analyzed to estimate the validity and the reliability of the test. The clarity of the questions was checked. The misleading items were also modified. The researcher found that students are suffering from low achievement

in learning English vocabulary and the retention of the vocabulary they learned in grade 10 .

Time Estimation

The trial application helped in estimating the time needed for answering the questions according to the following equation:

Time of the first student + time of the last student

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Therefore the time of test was (40) minutes

The validity of the test:

Al Agha (1996: 118) states that a valid test is the test that measures what it is designed to measure. The study used the referee validity and the internal consistency validity .

(A) The referee validity

The test was introduced to a jury of specialists in the English language and methodology in Gaza universities, Ministry of Education and supervisors and experienced teachers in the governmental schools. The items of the test were modified according to their recommendations.

(B) The internal consistency validity

Al Agha (1996: 121) asserts that the internal consistency validity indicates the correlation of the score of each item with the total average of the test. It also indicates the correlation of the average of each skill with the total average. This validity was calculated by using Pearson Formula.

Table (4)

Correlation coefficient of every item of the test with the total score of the test

No.	Pearson Correlation	Sig. level
1	0.695 **	Sig. At 0.01

2	0.736 **	Sig. At 0.01
3	0.564 **	Sig. At 0.01
4	0.584 **	Sig. At 0.01
5	0.617 **	Sig. At 0.01
6	0.665 **	Sig. At 0.01
7	0.889**	Sig. At 0.01
8	0.712**	Sig. At 0.01
9	0.697**	Sig. At 0.01
10	0.518**	Sig. At 0.01
11	0.621**	Sig. At 0.01
12	0.774**	Sig. At 0.01
13	0.768**	Sig. At 0.01
14	0.631**	Sig. At 0.01
15	0.837**	Sig. At 0.01
16	0.412*	Sig. At 0.05
17	0.643**	Sig. At 0.01
18	0.528 **	Sig. At 0.01
19	0.382 *	Sig. At 0.05
20	0.455*	Sig. At 0.05
21	0.457*	Sig. At 0.05

22	0.629 **	Sig. At 0.01
23	0.673**	Sig. At 0.01
24	0.577 **	Sig. At 0.01
25	0.764 **	Sig. At 0.01
26	0.611**	Sig. At 0.01
27	0.775**	Sig. At 0.01
28	0.392*	Sig. At 0.05
29	0.621 **	Sig. At 0.01
30	0.556**	Sig. At 0.01

"r" table value at(28) df. At (0.05) sig. level equal 0.361
"r" table value at(28) df. At (0.01) sig. level equal 0.463

According to table (4) , the coefficient correlation of each item is significant at (0.01)and (0.05). It can be concluded that the test is highly consistent and valid to be used as a tool of the study.

Reliability of the test:
The test is regarded reliable when it gives the same results in case of re-applying it for the same purpose in the same conditions (Al-Agha, 1996 :120).. The reliability of the test was measured by Alpha Cronbach and the Spilt- half techniques.

1-**Cronbach's Coefficient Alpha**

$$\alpha = \frac{K}{K-1} \left(1 - \frac{\sum_{i=1}^{K} \sigma_{Y_i}^2}{\sigma_X^2}\right)$$

The researcher calculated the reliability of the test by using Alpha Cronbach formula, (K) is the number of items of the test, ($\sigma 2\chi$) is the variance of the total test marks

where (σ2 Yí)is the component of the test and (í) is sample questions of the test (Cronbach and Richard, 2004).

The normal range of Cronbach's coefficient alpha value is between (0.0 and + 1.0), and the higher values reflect a higher degree of internal consistency.

Table (5)

Alpha Cronbach Coefficient of the Achievement Test

Test	Number of items	Alpha Cronbach
Vocabulary test	30	0.862

According to Table (5), the Alpha Cronbach coefficient is (0.862) and this result assures the high reliability of the test**.**

Split Half Method:

It depended on splitting the test into two parts and calculating the correlation between the parts, then making a correction for the correlation coefficient by Spearman–Brown Prophecy Formula (Abu Hattab & Sadeq, 1980: 14).

Table (6)
Alpha Spilt-half Coefficient of the Achievement Test

Test	Number of items	Alpha Spilt-half
Vocabulary test	30	0.889

The results showed that the reliability coefficients were acceptable because they were above 0.70 (O'dah, 2002: 176),the Alpha Spilt-half coefficient is (0.889) and this result assures the high reliability of the test**.**

The results showed that the reliability coefficients were acceptable because they were above 0.70 which means that the test was reliable and valid to apply.

Scoring of the Test

The test was scored by a simple traditional way. Each correct answer was awarded one point. The maximum average was (30) and the minimum was (zero). So, the total points for the whole test were 30.

Difficulty Coefficient

Difficulty coefficient is measured by finding out the percentage of the wrong answers of each item made by the students (Abu Nahia ,1994 :308). The coefficient of difficulty of each item was calculated according to the following formula:

Co. of difficulty = Number of students who gave wrong answers× 100

Total number of student

Table (7) shows that the difficulty coefficient of the test items varied between (33.3-80). Thus, all the items were accepted and the test is suitable to be used as a tool of the study**.**

Discrimination coefficient:

That means that the test is able to differentiate between the high achievers and the low achievers. The discrimination coefficient was calculated according to the following formula:

Co. of Disc. = correct answers number in higher group – correct answers number in lower group× 100

Students number of one group

Table (7)

Difficulty and Discrimination of Items of the Test

No.	Difficulty coefficient	Discrimination coefficient
1	60	33.3
2	63.3	46.6
3	66.6	33.3
4	56.6	66.23
5	73.3	46.6
6	46.6	40
7	36.6	53.3
8	46.6	40
9	53.3	66.23
10	36.6	53.3
11	33.3	46.6
12	50	53.3
13	53.3	46.6
14	63.3	46.6
15	76.6	60

16	73.3	53.3
17	73.3	53.3
18	46.6	60
19	80	73.3
20	73.3	60
21	43.3	40
22	60	60
23	53.3	73.3
24	70	53.3
25	63.3	66.23
26	73.3	66.23
27	33.3	53.3
28	53.3	66.23
29	40	63
30	73.3	60

Results show that the discrimination coefficient wobble between (33.3 –73.3) that means each of items is acceptable or in the normal limit of discrimination according to assessment and evaluation specialists.

1.4.2 Attitudes scale:

An attitude scale was prepared by the researcher to measure the effect of puzzles on developing students' attitudes towards English language among the tenth graders. The questionnaire is considered an instrument in this study, to get data and

information. This scale was used before and after the experiment for the control and the experimental group. Appendix (2)

The aim of the scale:

The attitude scale aimed to measure students' attitude towards English language before and after the experiment.

Steps of constructing the scale

1. The researcher constructed this scale depending on: Reviewing related literature as : Abidin et al (2012) , Al Mamun et al. (2012), Al Noursi(2013), Alshwiah (2009), Arslan and Akbarov (2012**),** Kovács (2011),Jabr(1991), Karahan(2007), ÜZÜM (2007).In addition, The attitudes scales towards other subjects as Al-Faleet(2007), Kalub(2002),

2. All the previous related studies helped in forming the domains and the statements of the scale.

3. Consulting specialists about attitudes in general.

4. The scale includes positive and negative sentences.

5. The scale was presented to the referee committee in order to measure :

- the suitability of the number of the items for the tenth graders.

- The clarity of the meaning of the statement to the respondents.

- The language used in the scale

- The extent to which each item of scale represents the intended domain.

6. The scale was refereed by university professors, specialists and experts.

Description of the Scale:

The scale consists of four domains (1)attitudes towards enjoying English language(2) attitudes towards the nature of English language (3) attitudes towards learning English language (4) attitudes towards English language teacher and teaching methods .The scale sentences were constructed to measure students' attitudes towards English language.The researcher took into consideration that

- The scale sentences included one idea in order to express specific attitude .

- The sentences related to scale and attitude subject .

- The sentences were short as much as possible .

- The sentences were simple, easy and suit students level .

The five-point Likert scale was used to measure students' responses. The levels of the scale responses varied where strongly agree, agree, not sure , disagree and strongly disagree. The students were asked to put ($\sqrt{}$) sign under his response . Scores from 5 to 1 were assigned for positive responses and from 1 to 5 for the negative responses. The final version of the scale consisted of 40 sentences distributed into four domains as follows

Table (8)

The Attitudes' Scale Domains

Domains	No. of items
1- attitudes towards enjoying English language	11
2- attitudes towards the nature of English language	8
3- attitudes towards learning English language	11
4- attitudes towards English language teacher and teaching methods	10
Total	40

Table (9)

Likert Scale

Type of Items	Strongly Agree	agree	Not sure	disagree	Strongly disagree
Positive sentences	5	4	3	2	1
Negative sentences	1	2	3	4	5

The scale was converted into interval variable through using weighted average as follows:

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Table (10)

Converting Likert Scale Scores into Interval Variable

Scale level	Weighted Average
Strongly disagree	1.00 – 1.79
disagree	1.80 – 2.59
Not sure	2.60 – 3.39
Agree	3.40 – 4.19
Strongly Agree	4.20 – 5.00

Instructions of the scale (for students)

The instructions were given to the students by the researcher. To avoid ambiguity, the statements of the scale were translated into Arabic in order to get students understand the items easily and accurately.

Pilot study:

In December 2012, The scale was applied on a random pilot sample of (30) tenth graders' from Abdul Kareem Al-Aklook Secondary School for boys in Dair Alballah. It was applied in order to emphasis the clarity of the scale 's sentences and instructions. It was also applied to identify the scale validity and reliability.

The scale validity

After applying the scale on pilot sample of (30), the results were recorded and statistically analyzed. The researcher used the referee validity and the internal consistency validity.

The referee validity

The scale was introduced to a jury of specialists in English language, methodology and Psychology university professors in Gaza universities, Ministry of Education and experienced supervisors. The items of the attitude scale were modified according to their recommendations. (Appendix 4)

The Internal Consistency Validity

It has been indicated by Al-Agha (1996:121) that the internal consistency validity indicates the correlation of the degree of each items with the total score of the domains by using Pearson Formula.

Table (11)

Correlation Coefficient for each Sentence in the First Domain:

Attitudes Towards Enjoying English

NO.	Item / Attitudes Towards Enjoying English	Pearson Correlation	Sig. level
1	I feel that English language lessons are interesting and fun	0.889	sig. at 0.01
2	I feel comfortable during English language lessons	0.890	sig. at 0.01
3	I feel that the time of English language classes is very long and boring.	0.573	sig. at 0.01
4	I like to spend my free time studying English	0.752	sig. at 0.01
5	I enjoy learning something new in the English subject	0.789	sig. at 0.01
6	I prefer English classes to other classes	0.656	sig. at 0.01
7	I like to participate in English lessons	0.748	sig. at 0.01
8	Speaking English makes me feel worried	0.685	sig. at 0.01
9	I watch programs related to the English language on TV	0.529	sig. at 0.01
10	I feel happy in doing activities in English	0751	sig. at 0.01

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NO.		Pearson Correlation	Sig. level
11	I think that English classes are useless	0.521	sig. at 0.01

r table value at df (28) and sig. level (0.05) = 0.361

r table value at df (28) and sig. level (0.01) = 0.463

Table(12)

Correlation Coefficient for each Sentence in the Second Domain:

Attitudes Towards the Nature of English

NO.	Item/ Attitudes towards the nature of English	Pearson Correlation	Sig. level
12	I believe that the English is important to communicate with others	0.845	sig. at 0.01
13	I feel difficulty when memorizing English vocabulary	0.695	sig. at 0.01
14	I feel that English language is difficult and complicated.	0.787	sig. at 0.01
15	I think that learning English increases my ability in learning other subjects	0.729	sig. at 0.01
16	I think that English language is basic in acquiring experiences and knowledge	0.872	sig. at 0.01
17	I believe that English language is forgotten easily	0.637	sig. at 0.01
18	I feel that learning English needs thinking and an effort.	0.842	sig. at 0.01
19	I feel difficulty when understanding English grammar	0.877	sig. at 0.01

r table value at df (28) and sig. level (0.05) = 0.361

r table value at df (28) and sig. level (0.01) = 0.463

Table (13)

Correlation Coefficient for each Sentence in the Third Domain

Attitudes Towards Learning English

NO.	Item/ Attitudes towards learning English	Pearson Correlation	Sig. level
20	Learning English is an important goal in my life	0.868	sig. at 0.01
21	I like that English is taught as an optional subject in schools	0.658	sig. at 0.01
22	I like to reduce English classes in school timetable	0.702	sig. at 0.01
23	I do my English homework	0.838	sig. at 0.01
24	I have more information when studying English	0.643	sig. at 0.01
25	I think that learning English is a waste of time	0.527	sig. at 0.01
26	I prefer studying in Arabic language rather than studying in English language	0.585	sig. at 0.01
27	I believe that learning English develops my thinking	0.567	sig. at 0.01
28	I am eager to learn everything new about English.	0.573	sig. at 0.01
29	I like to be the best one in the class in English	0. 760	sig. at 0.01
30	I feel satisfied with my performance in English subject	0.625	sig. at 0.01

r table value at df (28) and sig. level (0.05) = 0.361

r table value at df (28) and sig. level (0.01) = 0.463

Table (14)

Correlation Coefficient for each Sentence in the Fourth Domain

Attitudes Towards English Teacher and Teaching Methods

NO.	Item/ Attitudes towards English teacher and methods	Pearson Correlation	Sig. level
31	Loving English teacher makes me work hard in studying English .	0.855	sig. at 0.01
32	I think that the use of teaching aids helps me in learning English.	0.899	sig. at 0.01
33	I like the way which used in teaching English	0.690	sig. at 0.01
34	I feel that the teaching aids that are used by English teacher stimulate my attention.	0.738	sig. at 0.01
35	I like to be an English teacher in the future	0.546	sig. at 0.01
36	I feel that English teacher gives clear examples in the lesson	0.796	sig. at 0.01
37	I feel that English teacher looks after some students and ignore others	0.594	sig. at 0.01
38	I feel bored during English teacher explanation	0.650	sig. at 0.01
39	I think that English teacher respects students ' thoughts	0.708	sig. at 0.01
40	I like when English teacher is absent from the class.	0. 705	sig. at 0.01

r table value at df (28) and sig. level (0.05) = 0.361

r table value at df (28) and sig. level (0.01) = 0.463

Table (15)

Table (15)

Pearson Correlation Coefficient for every Domain from the Scale with the Total

Score of the Scale

No.	Domain	Pearson Correlation	Sig. level
1	attitudes towards enjoying English language	0.882	sig. at 0.01
2	attitudes towards the nature of English language	0.806	sig. at 0.01
3	attitudes towards learning English language	0.848	sig. at 0.01
4	attitudes towards English language teacher and teaching methods	0.845	sig. at 0.01

r table value at df (28) and sig. level (0.05) = 0.361

r table value at df (28) and sig. level (0.01) = 0.463

As shown in the table (15), there is a correlation between the domains and the total score at sig. level (0.01) that shows a high internal consistency of the scale which reinforces the validity of the scale.

Scale Reliability

The Scale Reliability was measured by Alpha Cronbach.

Table (16)

Alpha Cronbach

No.	Domain	Alpha Cronbach
1	attitudes towards enjoying English language	0.888
2	attitudes towards the nature of English language	0.838

3	attitudes towards learning English language	0.904
4	attitudes towards English language teacher and teaching methods	0.878
Total		**0.942**

The results of table show that the ranges of reliability of the four domains were above (0.942).The result indicates that Alpha coefficient was acceptable and the scale is reliable. Therefore, the scale was suitable for conducting the study.

1.4.3 The language Puzzles

In this study, puzzles were developed by the researcher from different sources. (Appendix 3).

a-The Aim of the Puzzles

The researcher used different puzzles to teach vocabulary for tenth graders . The puzzles were used to teach units (6 - 7 - 8) of " English for Palestine 10 " for the experimental group.

b-Developing the Puzzles

While developing the puzzles, the following aspects were taken into consideration:

- The aim of each language puzzle.
- The method and the directions of each puzzle.
- Achieving the objective of the lesson.
- Increasing students' motivation by limiting time for some puzzles.
- The worksheets used to teach the vocabulary .

C-The validity of the puzzles

To test the puzzles validity, the researcher submitted puzzles to a group of specialists in English language teaching, some English language supervisors and teachers to be judged and criticized.(Appendix 4). The researcher did the required adjustment according to their recommendations. After developing the puzzles and adjusting them in their final form, The researcher used different types of puzzles as follows:

- **Crossword**

Words are filled into a pattern of numbered squares in answer to correspondingly numbered clues and in such a way that the words read across and down. Students are asked to find out words relevant to a certain topic whether vertically or horizontally.

- **Picture puzzles (Spot the difference)**

It is a type of puzzle where students are asked to look carefully at the two pictures to find one difference or more between two the pictures.

- **Anagram**

It is a type of word play, the result of rearranging the letters of a word or phrase to produce a new word or phrase, using all the original letters exactly once. In this puzzle, students are asked to arrange letters to form new word .

- **The spy code**

It is a word game where students are asked to break a code to find words. Students in groups try to break a code of numbers by substituting letters with letters.

- A **guessing game**

It is a game whose objective is to guess some kind of information, such as a word, a phrase, a title, or the location of an object.

1.4.4 Teacher's Book

The researcher prepared the teacher's book to help the teachers apply the experiment. The researcher used the following items to prepare the teacher's book.(Appendix 3)

a- The aim of the teacher's book and lesson plan.

The teacher's book included the general aim, the specific objectives and the lesson plan. The book was prepared by the researcher to help teachers apply the experiment.

b- The sources of designing the teacher's book.

The sources of the teacher's book is the researcher's experience as an English teacher. Moreover, English supervisors' experience and some of English teachers' experience in governmental school referred the teacher's book.

c- Description of the teacher's Book.

The teacher's book includes information about the applying the experiment .It includes the objectives and procedures of the lessons. It also includes procedures for presenting puzzles

d- The validity of the teacher's book

Some of English supervisors and teachers shared in revising it. The researcher made these modifications to make the teacher's book valid. Appendix (4)

1.4.5 Controlling the Variables

To ensure valid results and avoid any possible external interference, the researcher tried to control some variables that would affect the results of the research.

Mackey and Gass (2005:128) emphasized that "it would be important that each group of students be relatively homogeneous. Were they not homogeneous, one cannot be sure about the source of the results".

1.Age variable:

The researcher recorded the students' ages from the school's files the school year (2012-2013). T-test was used to measure any statistical differences. The mean and the standard deviation were calculated for each group, and then T-test was used to measure the statistical differences. Table (17) shows the comparison between the two groups of the sample concerning the age variable.

Table (17)

T-test Results of Controlling Age Variable

	sample	N	Mean	Std. Deviation	T. value	Sig. (2 tailed)	sig. level
Age	Experimental	40	15.3750	.49029	.464	.644	Not sig
	Control	40	15.3250	.47434			

"t" table value at (78) df. At (0.05) Sig. level equal (2.0)

"t" table value at (78) df. At (0.01) Sig. level equal (2.66)

Results of the comparison indicate that both the experimental and the control groups are equivalent in the age variable and there are no statistically significant differences at (0.01) and (0.05) levels between the experimental and the control groups.

2.Vocabulary Achievement variable

To make sure that the sample students are equivalent in their previous learning of Vocabulary . The researcher applied the pre-achievement test. Theresults of the test were recorded and statistically analyzed using T-test.

Table (18) shows the comparison between the two groups of the sample on the pre-test**.**

Table (18)

T-test Results of Controlling of Vocabulary Achievement Variable

	sample	N	Mean	Std. Deviation	T. value	Sig. (2 tailed)	sig. level
Pre-vocabulary test	Experimental	40	2.4250	2.17076			Not sig
	Control	40	1.9750	1.98051	.969	.336	

"t" table value at (78) df. At (0.05) Sig. level equal (2.0)

"t" table value at (78) df. At (0.01) Sig. level equal (2.66)

Results shows that there are no statistical significant differences between the experimental and the control groups in the pre vocabulary test **,** so the two groups were equivalent.

3.The Teacher Variable

Both groups were taught by the same teacher, the researcher. This was to prevent any other factors related to the difference in the teachers from affecting the results.

4.Previous attitudes towards English

To make sure that the sample students are equivalent in their previous attitudes towards English language , the pre-attitude scale was applied . The results were recorded and statistically analyzed using T-test.

As shown in table (19) shows the comparison between the two groups of the sample in the pre attitudes scale .

Table (19)

T.test Results of Controlling Previous Attitudes Towards English

sample	N	Mean	Std. Deviation	T. value	Sig.(2 tailed)	sig. level
Experimental	40	3.119	.90207	.601	.550	Not sig
Control	40	2.989	1.02990			

"t" table value at (78) df. At (0.05) Sig. level equal (2.0)

"t" table value at (78) df. At (0.01) Sig. level equal (2.66)

Results show that there are no statistically significant differences between the experimental and the control groups in the pre attitude scale.

Experiment evaluation

Evaluation is defined as a systematic process of determining the extent to which instructional objectives are achieved by pupils.(Nunan 1995:184). In this study, it is a process to measure and identify   the benefits of the experiment. The experiment passed through two different kinds of evaluation: formative and summative.

In formative evaluation**,** the researcher conducted a quiz after each lesson in order to assess students' development in vocabulary throughout the experiment. Summative evaluation which was used in this study at the end of the experiment in order to measure the effectiveness of using puzzles on developing the students' vocabulary .

The post-test was conducted for this purpose. After two weeks, a delayed test was applied to measure retention.

Traditional method

Traditional method of teaching vocabulary is that the learners basically learned two things: the English word form and the Arabic translation. Extra information about new words (e.g. English definitions, synonyms antonyms, illustrative sentences) is presented.

Study Procedures

The study is progressed according to the following steps:

1. Reviewing literature and previous studies related to the effects of puzzles on learning . In addition, the researcher reviewed previous studies related to students' attitudes towards English language.

2. Preparing a teacher guide based on using puzzles in teaching the content of the specified units.

3. Presenting the puzzles to a number of specialists, including professors of teaching methodology, supervisors of English language and experienced teachers to avail from their experiences.

4. The pre vocabulary –test and pre-attitude scale were applied to the control and the experimental groups in 28-1-2013 . The results were recorded and statistically analyzed.

5. The researcher made sure that both groups were equivalent .

6. The post vocabulary test of and post attitude scale were applied to the two groups the experimental and the control in 20/3/2013. The results were recorded and statistically analyzed.

7. The delayed vocabulary test was administrated to the experimental group in 4/4/2013. The results were recorded and statistically analyzed.

8. Presenting the summary, the suggestions and the recommendation in the light of the study conclusions.

Statistical Analysis Procedures:

The data was collected and computed by using Statistical Package for Social Science (SPSS). The following statistical techniques were used:

1. T. Test Independent Samples: to control the interferential variables and to measure the statistical differences in means between the two groups due to the study variables.

2. T. Test Paired Sample to measure the differences in the total average score between the post-test and the delayed test of the experimental group.

3. Spearman correlation: to determine the internal consistency validity of the test.

4. Pearson Correlation Coefficient to identify the correlation the items of the test and the scale

5. Split-half technique and Alpha Cronbach technique to test the reliability of the test and the scale items.

6. Effect size by using T value and Eta square to check the effect size of the evident significant differences between the two groups and within the experimental group.

7. The significance level used was 0.05

Summary

This chapter showed the procedures of designing and applying the instruments, the subjects and the statistical analysis that the researcher adopted in analyzing the results of the pre , post and delayed vocabulary test and pre ,post attitudes scale. The next chapter presents the data analysis and results for the study hypotheses

Chapter IV
Data Analysis

Chapter IV

Results: Data Analysis

The study aimed at investigating the effectiveness of using puzzles in developing tenth graders ' vocabulary achievement, retention and attitudes towards English. This chapter tackles the procedures, the findings and results of the study in regards to the research questions. The researcher used different statistical forms using the statistical program (SPSS) to analysis the collected data results. Tables were also used to clarify and present these data with analysis and interpretation.

1.Data Analysis

1. Answers of the First Question
The first question inquired the following

1.Are there statistically significant differences at (α ≤ 0.05) in the average score in vocabulary achievement between the pupils who learned through puzzles(experimental group) and those who learned through the traditional method (control group) in the post test?

To answer this question, the researcher tested the following null hypothesis:

There are no statistically significant differences at (α ≤ 0.05) in the average score in vocabulary achievement between the pupils who learned through puzzles(experimental group) and those who learned through the traditional method (control group) in the post test

To examine this hypothesis, means and standard deviation of both groups' results on the post-test were computed. Independent Samples T-test was used to measure the significant differences. Table (20) describes this

Table (20)

T.test Independent Sample Results of Differences between the Experimental and the Control Group in the Post Test

sample	N	Mean	Std. Deviation	T. value	Sig. (2 tailed)	sig. level
Experimental	40	18.60	7.48	3.664	.000	Sig. at 0.01
Control	40	12.27	7.95			

"t" table value at (78) df. At (0.05) Sig. level equal 2.00

"t" table value at (78) df. At (0.01) Sig. level equal 2.66

As shown in table (20) shows that the T. computed value is larger than T. table in the test which means that there are significant differences at ($\alpha \leq 0.01$) in the total average score of the post-test between the experimental and control group in favor of the experimental group. The mean of the post-test in the experimental group reached (18.60), whereas the mean of the control group was (12.27). This result indicates that using puzzles is more effective than the traditional method in developing the students' vocabulary.

To show the extent of puzzles' effect on the experimental group achievement in the vocabulary, the study applied the "Effect Size" technique. The researcher computed " η^2 " using the following formula:(Affana, 2000: 42)

$$\eta^2 = \frac{t^2}{t^2 + df}$$

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And "d" value using the following formula:

$$\frac{2t}{\sqrt{df}}$$

Table (21)

The Table References to Determine the Level of Size Effect ($^2\eta$) and (d)

Test	Effect size criterion		
	Small	**Medium**	**Large**
$^2\eta$	**0.01**	**0.6**	**0.14**
d	**0.2**	**0.5**	**0.8**

The results of " $^2\eta$ " and " d " values shown in table (22) indicate large effect of using puzzles in the post test

Table (22) shows the effect size of puzzles of the achievement.

Table (22)

The Effect Size of Puzzles on the Experimental and the Control Groups Achievement in the Post-Test

Test	df	T	$^2\eta$	d	Effect size
Post test (total)	78	3.664	0.146	0.829	Large

Table (22) shows that the effect size of puzzles is large on students' vocabulary achievement . This means that the effect of puzzles is significant . This large effect may be due to the activities and techniques which are used in the different puzzles to develop students' vocabulary achievement.

It is observed that this finding of the study agrees with the findings of some previous studies as Alemi (2010), Alahmadi (2010), Atawi (2011), Bouteliaten (2010), Abd Al-Naby (2001), Levitin & Papalaskari (2002), Mariyati (2001),Hamdan (2009) which concluded that the use of puzzles in teaching develops students' achievement in general and vocabulary in particular .

2. Answers of the second Question

The second question inquired the following:

2.Are there statistically significant differences at (α ≤ 0.05) in the mean score in the pre and post-test of the experimental group?

To answer this question, the researcher tested the following null hypothesis there are no statistically significant differences at (α ≤ 0.05) in the average score in the pre and post-test of the experimental group.

Table(23)

T.Test Paired Sample Results of the Differences in the Total Average Score between the Pre-Test and the Post Test of the Experimental Group

Application	N	Mean	Std. Deviation	T. value	Sig. (2 tailed)	sig. level
Pre test	40	2.4250	2.17076			Sig. at 0.01
				12.9	.000	
Post test	40	18.60	7.48			

"t" table value at (39) df. At (0.05) Sig. level equal 2.03

"t" table value at (39) df. At (0.01) Sig. level equal 2.75

As shown in table (23) shows that the T. computed value is larger than T. table in the test which means that there are significant differences at (α ≤ 0.01) in the total average score of the post-test between the experimental and control group in favor of the experimental group. The mean of the post-test in the experimental group reached

(18.60), whereas the mean of pre-test in the experimental group was (2.4250). This means that there are statistically significant differences between the pre and post application of the experimental group in favor of the post application. This means that using puzzles is very effective in the achievement of tenth graders' vocabulary .

Table(24)

The Effect Size of Puzzles in the Pre- and the Post Test of the Experimental Group

Test	df	T	η^2	Effect size
total	39	12.9	0.81	Large

Table (24) shows that the effect size of puzzles   is large on students' vocabulary achievement . This means that the effect of puzzles is significant.

3. Answers of the third Question
The third question inquired the following:

3. Are there statistically significant differences at (α ≤ 0.05) in the total average score between the post-test and delayed test of the experimental group ?

To answer this question, the researcher tested the following null hypothesis
There are no statistically significant differences at (α ≤ 0.05) in the total average score between the post-test and delayed test of the experimental group .
To answer the second question, means and standard deviation of both post-test and retention test results were computed. Paired sample T-Test was used to measure the significant differences.

Table(25)

T.Test Paired Sample Results of the Differences in the Total Average Score

between the Post-Test and the Delayed   Test of the Experimental Group

application	N	Mean	Std. Deviation	T. value	Sig. (2 tailed)	sig. level
Post test	40	18.60	7.48	.783	.438	Not sig.
Delayed test	40	17.80	7.51			

"t" table value at (39) df. At (0.05) Sig. level equal 2.03

"t" table value at (39) df. At (0.01) Sig. level equal 2.75

As shown in table (25) shows that the T. table value is less than T. computed value in the delayed   test. That means there are no statistically significant differences at ($\alpha \leq 0.05$) in the total average score between the post-test and the delayed   of the experimental group. The mean of the post -test was (18.60) while the mean of the delayed test was (17.80). This result indicates the long-term effect of using puzzle on the experimental group of vocabulary retention .

4.Answers of the fourth Question

The fourth   question inquired the following:

4.Are there statistically significant differences at ($\alpha \leq 0.05$) in the total mean score of the post attitude scale between the experimental and the control group?

To answer this question, the researcher tested the following null hypothesis

There are no statistically significant differences at ($\alpha \leq 0.05$) in the total average score of the post attitude scale between the experimental and the control group

To answer the fourth question, mean and standard deviation of the experimental and the control groups' results were computed. T. Test Independent Sample was used to measure the significance of differences.

Table (26)

Table (26)

The General Results of the Scale Domains

Domain	No. of items	General mean	Relative weight	General attitude	Rank
1-attitudes towards enjoying English language	11	3.09	61.8	Not sure	4
2- attitudes towards the nature of English language	8	3.40	68	agree	2
3- attitudes towards learning English language	11	3.58	71.6	agree	1
4- attitudes towards English language teacher and teaching methods	10	3.15	63	Not sure	3

Table (26) shows that the domain related to attitudes towards learning English language received (71.6%) at the first rank of agreeing scores of the sample, then the domain related to attitudes towards the nature of English language which received (68%), after that the domain related to attitudes towards English language teacher and teaching methods which received (3%),the fourth rank was   the domain related to attitudes towards enjoying English language which received (61.8%)

Table (27)

T.Test Independent Sample Results of the Differences in the Total Average Score between the Experimental and the Control Group in the Post Attitude Scale

Domain	sample	N	Mean	Std. Deviation	T value	Sig. (2 tailed)	sig. level
attitudes towards enjoying English language	Experimental	40	4.0	.828	4.873	.000	sig. at 0.01
	Control	40	2.87	1.202			

attitudes towards the nature of English language	Experimental	40	4.26	.463	3.455	.001	sig. at 0.01
	Control	40	3.03	2.205			
attitudes towards learning English language	Experimental	40	3.97	.572	4.375	.000	sig. at 0.01
	Control	40	3.17	1.012			
attitudes towards English language teacher and teaching methods	Experimental	40	3.97	.547	3.552	.001	sig. at 0.01
	Control	40	3.00	1.642			
Total degree of the Scale	Experimental	40	4.04	.490	5.005	.000	sig. at 0.01
	Control	40	3.02	1.192			

"t" table value at (78) df. At (0.05) Sig. level equal 2.00

"t" table value at (78) df. At (0.01) Sig. level equal 2.66

As shown in table (27) shows that the T. computed value is larger than T. table in the test which means that there are significant differences at ($\alpha \leq 0.01$) in the total average score of the post attitude scale between the experimental group and the control group in favor the experimental group . This clarifies the effectiveness of the puzzles on developing the students' attitudes towards English language .

Table (28)

Table (28)

Effect size for each Domain and the Total Score of the Scale

Domain	df	T	η^2	d	Effect Size
attitudes towards enjoying English language	78	4.873	0.23	1.10	Large
attitudes towards the nature of English language	78	3.455	0.13	0.78	Medium
attitudes towards learning English language	78	4.375	0.19	0.99	Large
attitudes towards English language teacher and teaching methods	78	3.552	0.14	0.80	Large
The total degree	78	5.005	0.42	1.13	Large

Table (28) shows that

- Attitudes towards enjoying English language: "t" value is (4.873), "η2" equal (0.23) and "d" equal (1.10). This means that puzzles have a large effect on developing students attitudes towards English language.

- Attitudes towards the nature of English language: "t" value is (3.455), "η2" equal (0.13) and "d" equal (0.78). This means that puzzles have a medium effect on developing students attitudes towards English language.

- Attitudes towards learning English language :"t" value is (4.375), "η2" equal (0.19) and "d" equal (0.99). This means that puzzles have a medium effect on developing students attitudes towards English language.

- Attitudes towards English language teacher and teaching methods: "t" value is (3.552), "η2" equal (0.14) and "d" equal (0.80). This means that puzzles have a medium effect on developing students attitudes towards English language.

- The total of the scale : "t" value is (5.005), "η2" equal (0.42) and "d" equal (1.13). This means that puzzles have a large effect on developing students attitudes towards English language.

This indicates that using puzzles in teaching vocabulary has a large effect on students of the experimental group in total score of the scale.

The finding of examining this hypothesis was in agreement with the findings of Merrick (2010) which confirmed that puzzle based learning improves students' learning experience and interests.

5.Answers of the fifth Question

The fifth question inquired the following:

5.Are there statistically significant differences at (α ≤ 0.05) in the total mean score between the pre and post attitude scale of the experimental group ?

To answer this question, the researcher tested the following null hypothesis

There are no statistically significant differences at (α ≤ 0.05) in the total mean score between the pre and post attitude scale of the experimental group.

To answer the fourth question, mean and standard deviation of the experimental and the control groups' results were computed. T. Test Independent Sample was used to measure the significance of differences.

Domain	Application	N	Mean	Std. Deviation	T value	Sig. (2 tailed)	sig. level
attitudes towards enjoying English language	Pre	40	2.8	1.06	5.59	.000	sig. at 0.01
	Post	40	4.0	.828			
attitudes towards the nature of English language	Pre	40	3.1	1.32	4.88	.024	sig. at 0.01
	Post	40	4.26	.463			
attitudes towards learning English language	Pre	40	3.6	.834	2.29	.000	sig. at 0.01
	Post	40	3.97	.572			
attitudes towards English language teacher and teaching methods	Pre	40	2.9	.1.27	4.59	.000	sig. at 0.01
	Post	40	3.97	.547			

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| Total degree of the Scale | Pre | 40 | 3.14 | .903 | 5.52 | .000 | sig. at 0.01 |
| | Post | 40 | 4.04 | .490 | | | |

"t" table value at (78) df. At (0.05) Sig. level equal 2.00

"t" table value at (78) df. At (0.01) Sig. level equal 2.66

As shown in table (29) shows that the T. computed value is larger than T. table in the test which means that there are significant differences at ($\alpha \leq 0.01$) in the total average score of between the pre and post attitude scale of the experimental group in favor the post attitude scale. This clarifies the effectiveness of the puzzles on developing the students' attitudes towards English language .

Table (30)

Effect Size for each Domain and the Total Score of the Scale

Domain	df	T	η^2	d	Effect Size
attitudes towards enjoying English language	78	5.59	0.2	1.2	Large
attitudes towards the nature of English language	78	4.88	0.23	1.1	Large
attitudes towards learning English language	78	2.29	0.06	0.5	Medium
attitudes towards English language teacher and teaching methods	78	4.59	0.21	1.0	Large
The total degree	**78**	**5.52**	**0.28**	**1.2**	**Large**

Table (30) shows that

- Attitudes towards enjoying English language: "t" value is (5.59), "η2" equal (0.2) and "d" equal (1.2). This means that puzzles have a large effect on developing students attitudes towards English.

- Attitudes towards the nature of English language: "t" value is (4.88), "η2" equal (0.23) and "d" equal (1.1). This means that puzzles have a medium effect on developing students attitudes towards English language.

- Attitudes towards learning English language :"t" value is (2.29), "η2" equal (0.06) and "d" equal (0.5). This means that puzzles have a medium effect on developing students attitudes towards English.

- Attitudes towards English language teacher and teaching methods: "t" value is (4.59), "η2" equal (0.21) and "d" equal (1.0). This means that puzzles have a medium effect on developing students attitudes towards English.

-The total of the scale : "t" value is (5.52), "η2" equal (0.28) and "d" equal (1.2). This means that puzzles have a large effect in developing students attitudes towards English.

Summary
This chapter dealt with data analysis and its results. The results of each hypothesis were analyzed statistically using different statistical techniques.

It is obvious that there are significant differences in developing vocabulary and the attitudes towards English language between students in the experimental group and their counterparts in the control one in favor of the experimental group. The results of the post-test and delayed test indicated the significant role of puzzles in developing tenth graders vocabulary. The results also revealed that puzzles had more effects than the traditional approach related to the retention of vocabulary. The results of this study agree with the results of many researchers such as:

Fotovatnia & Namjoo (2013) which indicated that word games in English classes to increase learners` motivation, vocabulary learning, and also to provide a more positive atmosphere in the classroom. Alemi(2010) which confirmed the positive effect of word games on expanding learners' vocabulary. Alahmadi(2010) which

indicated that there were statistically significant differences between the mean scores of the experimental and control groups in their achievements of the English vocabulary in favor the experimental group**.** Bouteliaten (2010**)** which showed that the learners proved to have learnt nearly all the unfamiliar vocabulary items through using crossword puzzles as a teaching technique . They have also manifested a great enthusiasm in this type of material while teaching them.

According to the findings of the study**,** using puzzles had positive effects on developing vocabulary achievement , retention and attitudes towards English language. The next chapter presents findings, discussion, implications and recommendation**s**

Chapter V
Findings, Discussion, Conclusions,
Implications and Recommendations

Chapter V

Findings, Discussion, Conclusions,
Implication and Recommendations

This chapter discusses the results of the study. It sums up the conclusions which will deduced in the light of the tudy results and the pedagogical implications that the researcher has reached. It also involves suggestions and recommendations for further study. Such suggestions are expected to be beneficial for course designers, teachers of English tenth grade, supervisors, students and educators. They could help improve teaching English language in general and vocabulary in particular.

1. Findings
Based on the results of this study, the following findings were observed:

1. There are statistically significant differences in the total average score in vocabulary achievement between the pupils who learned through puzzles(experimental group) and those who learned through the traditional method (control group) in favor of the experimental group with a large effect size.
2. There statistically significant differences in the average score in the pre and post-test of the experimental group in favor of the post application.
3. There are no statistically significant differences in the total average score between the post-test and delayed test of the experimental group .
4. There are statistically significant differences in the total average score of the post attitude scale between the experimental and the control group in favor of the experimental group with a large effect size.
5. There statistically significant differences in the total mean score between the pre and post attitude scale of the experimental group in favor of the post application with a large effect size.

2.Discussion

The study aimed at investigating the effectiveness of using puzzles in developing tenth graders ' vocabulary achievement, retention and attitudes towards English. To achieve this aim, the researcher adopted the experimental approach where therewere two equivalent groups: the experimental and the control groups. Each group included (40) students, purposively chosen from Abdul Kareem Al-Aklook secondary for boys in Dair Al Balah. Both groups were proved to be equivalent in terms of age, vocabulary achievement and previous attitudes towards English language. The researcher used three tools in order to collect data:, an Achievement test (pre – post & delayed test), an attitude scale and teacher guide(puzzles).

The researcher prepared the teacher guide which is based on language puzzles to develop students' English vocabulary. The contents of the teacher guide were chosen, organized and modified according to the opinions and suggestions of a group of specialists in this field. The researcher prepared an implementation plan for the experiment . The experiment started at the beginning of the second semester of the school year (2012-2013) and lasted for six weeks. The researcher used a variety of techniques and activities based on puzzles. The population of the study consisted of all tenth graders at the governmental schools in the Middle-Area Directorate.

First: Interpretation of results related to question number one.

The researcher investigated the first question which examined if there were statistically significant differences at ($\alpha \leq 0.05$) in the total average score in vocabulary achievement between the pupils who learned through puzzles(experimental group) and those who learned through the traditional method (control group)

The finding indicated that the (t) computed value, (3.664), was larger than the (t) table value, (2.66), in the post test. This means that there were significant differences at (a=0.01) and (0.05) in the total average score in vocabulary achievement between the pupils who learned through puzzles(experimental group) and those who learned through the traditional method (control group)in favour of the experimental group.

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There were also significant differences between the means of both groups in favour of the experimental group, Whereas the mean of the control group was (12.27), the mean of the experimental group was(18.60).

Moreover "d" and "η^2 " values were computed to estimate the effect size . The researcher found that the effect size indicated a large effect of puzzles in developing English vocabulary for the experimental group.

This may be attributed to :

1. The variety of techniques in presenting Puzzles .(picture puzzles, crosswords, anagram ad guessing game)
2. The puzzles are suitable to the students ' age.
3. The researcher used puzzles that suit to the Students ' minds.
4. Using different activities in the classroom.
5. Puzzle based learning motivated students to work while keeping them engaged and interested. They also created a relaxed, fun filled and anxiety-free atmosphere that facilitated and enhanced learning.
6. Using puzzles created a non-threatening learning environment that encouraged interactions between students and teachers, enhanced communication, cooperation and teamwork and encouraged active participation.
7. Using puzzles strategy proved to be a fertile teaching learning environment that enhanced both conscious and subconscious learning of vocabulary. Explicit learning is represented in the explicit instruction of puzzles of acquiring vocabulary. Indirect acquisition of vocabulary results from practicing the various activities and techniques which are used to develop vocabulary achievement. Consequently, it can be summed up that using puzzles is effective in developing English vocabulary .

Finally, This result agreed with the results of many previous studies as: Fotovatnia & Namjoo (2013) which revealed that cooperative word games could affect their vocabulary learning by increasing their motivation and providing a positive atmosphere in their classroom, while for some others, competitive word games were more effective, Atawi(2011) which confirmed that using word games had a great effect on students' achievement in English vocabulary , Alemi(2010) which confirmed

the positive effect of word games on expanding learners' vocabulary, Alahmadi(2010) which indicated that there were statistically significant differences between the mean scores of the experimental and control groups in their achievements of the English vocabulary in behalf of the experimental group, Bouteliaten (2010), which confirmed that the use of puzzles develop and expand students' vocabulary .

Second : Interpretation of results related to question number two .

The researcher investigated the second question which examined if were there are no statistically significant differences at ($\alpha \leq 0.05$) in the average score in the pre and post-test of the experimental group.

Results indicated that the computed T. value is greater than the table T. value in the total score of the post test at level ($\alpha \leq 0.01$). This means that there are statistically significant differences between the pre and post application of the achievement test of the experimental group in favor of the post application. The mean of the experimental group on the post-test reached (18.60), while it was (2.42) in the pre-test**.** The researcher concluded that using puzzles played a basic role on developing vocabulary achievement. This may be attributed to the use of the puzzles. Puzzles helped in the acquisition and learning of new words as well as increase students' familiarity with them in terms of meaning. Puzzles change the atmosphere of the class, add excitement to the learning environment, and create a naturalistic setting for language learning. Learners in the process of using puzzles have the opportunity to use language in order to convey meaning and use their knowledge to do something. This result agreed with the results of many previous studies Fotovatnia & Namjoo (2013), Mubaslat(2012), Atawi(2011), Alahmadi(2010).

Third : Interpretation of results related to question number three .

The researcher investigated the third question which examined if there are statistically significant differences at ($\alpha \leq 0.05$) in the total average score between the post-test and delayed test of the experimental group.

The finding indicated that the (t) computed value, (.783), was smaller than the (t) table value, (2.66). This means that there were no statistically significant differences at (α ≤ 0,05) in the total average score score between the post-test and delayed test of the experimental group.

The mean of the post -test was (18.60) while the mean of the delayed test was (17.80). This result indicates the long-term effect of using puzzle on the experimental students' vocabulary retention. This could be attributed to the activities, techniques, and teaching aids used in the puzzle which aimed at developing English vocabulary achievement and retention. Finally, This result agreed with the results of many previous studies as : Al-Harbi (2010), Aghlara(2011),Endo(2010).

Fourth : Interpretation of results related to question number four .

The researcher investigated the fourth question which examined if there were statistically significant differences at (α ≤ 0.05) in the total average score of the post attitude scale between the experimental and the control group.

The finding indicated that the (t) computed value, (5.005), was larger than the (t) table value, (2.66), in the post attitude scale. This means that there were statistically significant differences at (α ≤ 0.05) in the total average score of the post attitude scale between the experimental and the control group in favour of the experimental group, Whereas the mean of the control group was (3.02), the mean of the experimental group was(4.04).

Moreover "d" and "²η " values were computed to estimate the effect size . The researcher found that the effect size indicated a large effect of Puzzles in developing students attitudes towards English language.
This may be attributed to :

1. Puzzles enables students to be more motivated, active and co-operative in the English language class compared with the traditional English language class. This may reflects their responses on the attitude scale especially in the first domain which related enjoying with English language.

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1. The researcher used puzzles that suite to the students ' minds and level . Puzzles were   simple and made leaning is easy .This may reflects their responses on the attitude scale especially in the second domain which related to the nature of language .

2. Reinforcing students answers and their participation may had an effective role in enhancing their attitudes towards English language .especially, Reinforcing affects in the composition of attitude, a person acquires tendency to repeat stimulus if it leads to positive results(kaloop,2002:213)

Finally, This result agreed with the results of many previous studies : Fotovatnia & Namjoo (2013) which confirmed that word games affect learners` vocabulary learning, increase their motivation, change their attitudes toward their teacher, and also create a positive atmosphere in their classroom. Bouteliaten (2010) which showed that the learners proved to have manifested a great enthusiasm in the type of crosswords puzzles while teaching them.

Some studies clarified the role of puzzles on the students' motivation and attitudes towards learning in general. This is observed in the study of : Nassar(2009) which indicated that there are significant differences between the average levels of pupils in the experimental group in the measurement of the tendency towards mathematics and average peers in the control group for the experimental group**.**

Fifth : Interpretation of results related to question number five .

The researcher investigated the fifth question which examined **if there statistically significant differences at (α ≤ 0.05) in the total mean score between the pre and post attitude scale of the experimental group**

The finding indicated that the (t) computed value, (5.52), was larger than the (t) table value, (2.66), in the post attitude scale. This means that there statistically significant differences at (α ≤ 0.05) in the total mean score between the pre and post attitude scale of the experimental group in favour of the post application, Whereas the mean of the pre application of the attitude scale was (3.14), the mean of the post application of the attitude scale was (4.04).

Conclusion:

Based on the findings, derived from the results of this study, the following conclusions were reached:

1. Puzzles increase students' motivation to learning and raised the degree of competition among students.

2. Puzzles provide a positive and relaxed atmosphere in the classroom which enhances learners 'performance in the classroom.

3. Puzzles develop the cooperative learning among students.

4. Puzzles stimulate students towards an independent practice of English language instead of direct instruction.

5. Educational Puzzles provide a context in which language is used in a meaningful way and they helped students develop communicative competence in the English language. This also adds an interesting aspect to puzzles, the competition. Adding competition to educational puzzles is a good technique to try to push its players to learn

6. Through puzzles the students play several roles in the class as thinkers, problem solvers, and researchers. These roles helped them acquire and employ English language in different situations more easily.

7. Puzzles provide students with better learning environment which reflects positively on their achievement of English language .

8. Puzzles change students' role from passive participation into active participation. That, is puzzles encouraged students to speak and to communicate and really this the real aim of using puzzles in teaching English language.

9. Puzzles provide students with enjoyment, pleasure, enthusiasm and variation which are significant enough to affect the students' achievement positively.

10. Puzzles can afford a valuable technique in language classroom for students at intermediate level and hence can be used to facilitate the process of vocabulary learning.

11. Puzzles have a positive effect on developing students' attitudes towards English language.

Pedagogical Implications

In the light of the study results, the researcher suggests the following:

1. Teachers should be aware of the needs of their students as well as their abilities and can accordingly choose suitable techniques for activating English vocabulary.
2. Puzzles are recommended when teaching vocabulary.
3. Teachers should avoid teacher-centered classes and encourage student-centered classes.
4. Using strategies which can promote learners` motivation is considered as an effective strategy for language learning and teaching.
5. Using puzzles enables students to develop their attitudes and motivation towards learning in general and vocabulary in particular.
6. Using puzzles in the learning process encourages students to be more cooperative and active when doing an activity.
7. Teachers and students should be convinced of the importance of using puzzles in acquiring and developing vocabulary.
8. Puzzles enable students with disabilities to overcome their disabilities.
9. Puzzles help to create a fun atmosphere and reduce the gap between teacher and pupils.
10. Teachers should be convinced that, through puzzles, learners are given opportunities to meet and explore new vocabulary without direct teacher assistance.
11. Teachers should be cognizant of their students' individual differences. consequently, they introduce materials and use techniques which may develop positive attitudes towards learning English.

Recommendations

In the light of the results, the researcher recommends that:

Curriculum designers and decision makers are recommended to

1- Enrich the Palestinian curriculum with different educational puzzles that tackle the different skills of English language .

2- Develop and enrich the Teacher's Guide with activities and techniques with different types of puzzles.

Supervisors are recommended to

1- Provide teachers with instructional materials which improve their awareness about puzzles and their importance and the necessity of using them in teaching English.

2- Conduct workshops that aim at familiarizing teachers with different puzzles .

3- Help training courses for teachers about implementing puzzles in their classes.

4- Concentrate on the fact that puzzles are not wasting-time activities, instead, they are very important which are used in different aspects of the language.

English language teachers are recommended to

1- Change the methods and approaches of teaching from traditional to communicative which based on the students' real involvement in the teaching-learning process.

2- Relate puzzles with different language skills, listening, speaking, reading and writing.

3- Consider students' individual differences and learning styles in selecting the puzzles.

4- Adopt modern techniques that enhance students' participation and interaction.

5- Change their role from instructors who dominate the class into educators whose role is to facilitate, guide , organize, help, coordinate and support the students to communicate and acquire the language.

6- Manage the environment and the materials that help the students become self learner.

7- Adopt modern techniques that enhance students' participation and interaction.

Recommendations for further studies

The researcher suggested the following recommendations for further studies:

1- The effect of computerized competitions on developing students reading comprehension skills.

2- The effectiveness of using puzzles on developing listening comprehension skills.

3- The effect of educational puzzles on developing students' critical thinking .

4- The effectiveness of a suggested program based on puzzles on developing reading comprehension skills.

5- The effect of puzzle based learning on the development of self-learning.

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Appendices

Appendix (1)

The Islamic University of Gaza

Postgraduate Studies Deanship

Faculty of Education

English Curriculum & Methodology Department

Vocabulary Achievement Test

"Tenth Grade"

Prepared by

Fikry Kamel Al-Faleet

Supervised by

Dr. Awad Keshta

Dear Professor , Supervisor, Expert teacher,

The researcher is conducting a study entitled" The Effectiveness Of Using Puzzles On Developing Tenth Graders' Vocabulary Achievement , Retention And Their Attitudes Towards English Language In Palestine" to obtain a Master's Degree in Curriculum & English Teaching Methods.

One of the requirements of this study is to conduct vocabulary achievement test .Please, you are kindly requested to look carefully at the attached test and fill in the following form whether the items of the test are suitable or unsuitable.

Your notes and responses will be highly appreciated and confidential.

	Item	High	Average	Low
1	The test items reflect the objectives.			
2	The test items suit tenth graders' level.			
3	The layout is acceptable.			
4	The time assigned is suitable.			

Any further comments are highly appreciated.

………………………………………………………………………… …….

…………………………………………………………………………………….

…………………………………………………………………………………….

…………………………………………………………………………………….

…………………………………………………………………………………

Thanks a lot for your cooperation

The Researcher/

Fikry Kamel Al-Faleet

Vocabulary Achievement Test

Tenth Grade

Name: …………………… Class: ……………Time: 40 minutes

1-Fill in the spaces with the right words from the box: (6 marks)

enclosing –leather–destination– inscriptions– wealth –cyclones – sites

1.Rich countries should use their ………………to help poor countries.

2.I'm ………...a photo of me at a place in the mountain near Inverness.

3………………… cause much destruction in many places.

4.There are many archaeological ……….………………in Palestine.

5.These bags are made of natural ……….……………

6.Palestine is a wonderful……..………..for both tourists and pilgrims.

2-Complete the sentences with a suitable word from the same word family (5 marks)

1.During the last attack on Gaza, People waited ………….as they couldn't do anything.(help)

2.A high degree of……….. is required in that company.(specialize)

3.Please list your ....on your CV .(qualify)

4.I realize now that I made the wrong ………………(decide)

5.It was one of the most …………storms in recent memory. (destroy)

3-Match the words on the left to the definitions on the right (6 marks)

1......... architecture **a**   job or jobs that you do through your working life.

2.……remains   **b**   the study of things that were made and left by people in ancient times.

3.……route   **c**   a person who travels to a holy place for religious reasons.

4.……career   **d**   particular road or direction that you choose from one place to another.

5…… archaeology **e**   pieces of things that were made a long time ago.

6.…… pilgrim   **f** the art or practice of designing and building structures.

4-Work out the following puzzles and find the words (4 marks)

1.A place where people go for relaxation or interesting .
It's…………………

| t r o r s e |

2.Words that are written or cut on a coin, medal, stone, or
currency.It's…………………

| s n i o c i r n t p i |

3.If you 're a fighter, I am a fighter, too. If you're a player , I am a player,
too. If you're in championship I am in front of you .I'm

……………………

| e m c v o p i t i e t |

4.I can be changed easily. Whatever you want to do is fine with me. I'm

………………………..

| l x e l i e b f |

5-Choose the correct answer: (9marks)

1.Society ………….people who do their work well —whatever their jobs.
 a) respects   b)hates   c) decides   d) specializes
2.The walls and the floor of the house are covered with wonderful
brown…………….
a) treasures   b)tiles   c)leathers   d)pottery
3.Our Prophet Mohammed …………………to Heaven at night in Al-
Isra' and Al-Mi'raj.
 a) ascended   b) destroyed   c)combined   d)rebuilt
4.Many buildings were ………………during the last attack on Gaza.
 a) combined   b)determined   c) enclosed   d) destroyed
5.The driver of the ………. was severely injured in the crash last month.
 a)modern   b)destination   c)leather   d)vehicle
6.Parents are………………. for their own children.
a) responsible   b) careless   c) helpless   d) powerful
7.You should take the..……route if you prepare to become an electrician.
 a) academic   b) competitive   c) arts   d) vocational
8.The player won an international tennis ………………………
 a) application   b) decision   c) competition   d) organization
9.You must be careful about what you eat. In..……..,avoid anything fatty.
 a) requirement   b) willing   c) particular   d) guessing

Thanks for cooperation

Appendix (2)

الجامعة الإسلامية ــ غزة
عمادة الدراسات العليا
كلية التربية
قسم المناهج وطرق التدريس

مقياس اتجاهات طلاب الصف العاشر نحو اللغة الانجليزية

اعداد

فكري كامل الفليت

اشراف

د. عوض قشطة

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السيد / .... حفظه الله

السلام عليكم ورحمة الله وبركاته

الموضوع : تحكيم مقياس الاتجاه نحو اللغة الانجليزية

يقوم الباحث بإعداد دراسة للحصول على درجة الماجستير في التربية ، تخصص مناهج وطرق تدريس بعنوان "

The Effectiveness Of Using Puzzles On Developing Tenth Graders'

Vocabulary Achievement , Retention And Their Attitudes Towards

English Language In Palestine"

ومن متطلبات إجراء هذه الدراسة : إعداد مقياس لاتجاهات طلاب الصف العاشر نحو مادة اللغة الانجليزية، بهدف التعرف على اتجاهات الطلاب وموقفهم من اللغة الانجليزية.

لذا أرجو من سيادتكم الإطلاع على المقياس وإبداء رأيكم حول مدى:

1-   وضوح تعليمات مقياس الاتجاهات.

2-   مناسبة العبارات لمستوى طلاب الصف العاشر

3-   مناسبة الصياغة اللغوية لعبارات المقياس.

4-   ارتباط العبارات بالهدف الذي وضعت من أجله في المقياس.

5-   انتماء كل عبارة للمحور الخاص بها .

6-حذف بعض الفقرات أو إضافة فقرات أخرى لم يلتفت إليها الباحث.

شاكرين لكم حسن التعاون و بارك الله في جهودكم الطيبة لخدمة البحث العلمي.

الباحث

فكري كامل الفليت

عزيزي الطالب ،   **السلام عليكم ورحمة الله وبركاته**

يهدف هذا المقياس إلى معرفة اتجاهك نحو اللغة الانجليزية ، وقد وضع لأجل البحث العلمي فقط ، وليس له تأثير على درجاتك المدرسية ، فالمرجو منك أن تجيب عن فقراته بكل صدق وجدية حتى يتحقق الهدف منه .

يحتوى هذا المقياس على مجموعة من العبارات وأمام كل عبارة خمسة خيارات هي **(أوافق بشدة ـ أوافق ـغير متأكد ـ أعارض ـأعارض بشدة)**

ويعبر التدرج المقابل لكل عبارة عن درجة الموافقة عليها:

ـأوافق بشدة: إذا كانت العبارة تتفق معك دائما

ـأوافق: إذا كانت العبارة تتفق معك غالبا

ـغير متأكد: إذا كانت العبارة لا تنطبق عليك ولا تستطيع أن تقرر

ـأعارض: إذا كانت العبارة لا تتفق معك غالبا

ـأعارض بشدة: إذا كانت العبارة لا تتفق معك دائما

المطلوب منك أن تقرأ كل عبارة بإمعان وتضع علامة (√) أمام العبارة تحت أحد الاختيارات التي تعبر عن رأيك ،

والمثال التالي يوضح كيفية الإجابة

العبارة	أوافق بشدة 5	أوافق 4	غير متأكد 3	أعارض 2	أعارض بشدة 1
أحب مادة اللغة الانجليزية .	√				

والآن يمكنك البدء في الإجابة على عبارات المقياس ، مع إتباع التعليمات الآتية :

*اقرأ العبارات بإمعان ودقة.

*لاحظ انه لا توجد إجابات صحيحة وأخرى خاطئة.

*لا تترك أية عبارة دون تحديد استجابتك عليها .

*لا تضع أكثر من علامة أمام العبارة الواحدة .

الباحث

فكري كامل الفليت

أعارض بشدة 1	أعارض 2	غير متأكد 3	أوافق 4	أوافق بشدة 5	العبارة	الرقم
					المحور الأول : الاتجاه نحو الاستمتاع باللغة الانجليزية أشعر أن دروس اللغة الانجليزية شيقة وممتعة.	1
					أشعر بالراحة خلال دروس اللغة الانجليزية.	2
					أشعر أن الوقت في دروس اللغة الانجليزية طويل ممل.	3
					أحب أن أقضي وقت فراغي في دراسة اللغة الانجليزية.	4
					اشعر بالمتعة عندما أتعلم شيئا جديدا في مادة اللغة الانجليزية.	5
					أفضّل حصة اللغة الانجليزية على غيرها من الحصص .	6
					أحرص على المشاركة في دروس اللغة الانجليزية.	7
					اشعر بالقلق عندما أتحدث باللغة الانجليزية.	8
					أتابع البرامج التي تعرض عن اللغة الانجليزية في التلفاز	9
					اشعر بالسعادة عند مشاركتي في نشاطات تتعلق باللغة الانجليزية .	10
					اشعر أن دروس اللغة الانجليزية لا فائدة منها .	11
					المحور الثاني : الاتجاه نحو طبيعة اللغة الانجليزية أرى أن اللغة الانجليزية مهمة للتواصل مع الآخرين.	12
					أحس بصعوبة عند حفظ كلمات اللغة الانجليزية	13
					أعتقد أن اللغة الانجليزية صعبة ومعقدة.	14
					أرى أن تعلم اللغة الإنجليزية يزيد من قدرتي على تعلم المواد الأخرى.	15
					أرى أن اللغة الانجليزية أساسية في اكتساب الخبرات والمعارف.	16
					أرى أن مادة اللغة الانجليزية سريعة النسيان .	17
					أشعر أن تعلم اللغة الإنجليزية يحتاج لتفكير وجهد	18
					أحس بصعوبة في فهم قواعد اللغة الانجليزية.	19
					المحور الثالث : الاتجاه نحو تعلم اللغة الانجليزية تعلم اللغة الانجليزية هدف مهم في حياتي.	20
					أحب أن تدرس مادة اللغة الانجليزية كمادة اختيارية في المدارس .	21
					أرغب في تقليل حصص اللغة الانجليزية في الجدول	22

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					المدرسي.	
					أهتم بأداء واجباتي المنزلية في مادة اللغة الانجليزية.	23
					أرى أن دراسة اللغة الانجليزية تضيف لي الكثير من المعلومات.	24
					أرى أن تعلم اللغة الانجليزية مضيعة للوقت .	25
					أفضل الدراسة باللغة العربية على الدراسة باللغة الانجليزية	26
					اعتقد أن تعلم اللغة الانجليزية ينمي تفكيري .	27
					أحرص على تعلم كل معلومة جديدة عن اللغة الانجليزية.	28
					أحب أن أتفوق على زملائي في اللغة الانجليزية.	29
					أشعر بالرضا تجاه أدائي في اللغة الانجليزية.	30
					المحور الرابع : الاتجاه نحو معلم اللغة الانجليزية وطريقة التدريس حبي لمعلم اللغة الانجليزية يجعلني أجتهد في دراستها.	31
					أرى أن استخدام الوسائل التعليمية يساعد في تقبل تعلم اللغة الانجليزية.	32
					تعجبني طريقة تدريس اللغة الانجليزية.	33
					تثير انتباهي الوسائل التي يستخدمها المعلم في مادة اللغة الانجليزية .	34
					أحب أن أكون معلم لغة انجليزية في المستقبل.	35
					أشعر أن معلم اللغة الانجليزية يعطي أمثلة واضحة في الدرس	36
					يهتم معلم اللغة الانجليزية ببعض الطلبة دون الآخرين.	37
					أشعر بالملل أثناء شرح المعلم في مادة اللغة الانجليزية.	38
					أرى أن معلم اللغة الانجليزية يحترم أفكار تلاميذه.	39
					أحب أن يغيب معلم اللغة الإنجليزية عن الحصة .	40

أشكرك عزيزي الطالب على تعاونك

Appendix (3)

The Islamic University of Gaza

Postgraduate Studies Deanship

Faculty of Education

English Curriculum & Methodology Department

Teacher Guide*(Puzzles)*

English for Palestine 10

How to teach vocabulary lessons using puzzles

Prepared by

Fikry Kamel Al-Faleet

Supervised by

Dr. Awad Keshta

Dear teacher,

The researcher is conducting a study entitled" The Effectiveness Of Using Puzzles On Developing Tenth Graders' Vocabulary Achievement , Retention And Their Attitudes Towards English Language In Palestine" to obtain a Master's Degree in Curriculum & English Teaching Methods.

You are kindly invited to check the attached teacher guide and puzzles , which are designed to collect data for the study.

The puzzles will be limited to " English for Palestine 10" units (6 - 7 –8) .

Your notes and comments will be highly appreciated and confidential. Any modifications , additions , or omissions will be taken into consideration .

Definition of Puzzle: The researcher defines puzzle as a confusion situation which requires a solution and this includes riddles, crosswords , picture puzzles ,spot the difference, anagrams, missing letters , adding letters and guessing games.

Thanks a lot for your cooperation
The Researcher/
Fikry Kamel Al-Faleet

Unit 6   Dangerous Weather

Objectives: Ss are expected to :

1- Learn the words of natural disaster .

2- use them in sentences.

3- write the words .

Vocabulary /cyclone

In class

Teacher divides class into groups of six.

Teacher distributes the sheets.

Each student works individually , then discusses his findings with his group.

The first group to find the word(Cyclone) is the winner .

Complete the following crossword puzzle with the appropriate word place corresponding to the clues to find the word which means hurricane.(in the first column vertically).

1-an animal used for catching rats and mice.

2-an early stage of life.

3-a worker who builds or repairs wooden structures.

4-to be short or have need of something.

5-the opposite of close.

6-the following.

7-half of it is silver and the other half is gold.

Answers: 1-cat   2-young 3-carpenter 4-lack   5-open   6-next   7-egg

In class

Teacher gives students sheets of the following puzzles.

Students work in pairs to guess the words.

Teacher confirm the meaning.

Vocabulary/ combine
It 's a verb .It consists of seven letters .To unite or join two or more things at the same time.

Unit 6
Vocabulary/ destruction

It's a noun . It consists of eleven letters. Something which happens as result to the war or disaster. The first letter is "d"

Unit 6
Vocabulary/ helpless
It's an adjective. It consists of eight letters. An old man and a baby have this adjective. They need others to do their things.

Unit 6
Vocabulary/prediction-wealth-tidal wave
Work out the following puzzles rearranging the letters of the word or phrase in the

box to produce a new word

| cep ti no rid |

Something that foretells the future; a prophecy.It's a noun

…………………….

| el what |

A great amount of money, property
……………………

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www.manaraa.com

a advt li we

I am a wave caused by the force of the moon and sun**.**
…………………………..

Add the Missing Letters to get the verb in the past which means to come near:

In class

Teacher asks a student to come in the front of the class.

Teacher shows the student the word**(approached)**.

Teacher asks students to guess the word by adding the missing letters .

Student writes the letter if they say the correct one until one guesses it .

d__ __ c__ __ __ p__ __

Add the Missing Letters to get the verb:

In class

Teacher asks a student to come in the front of the class .

Teacher shows the student the word**(enclose)**.

Teacher asks students to guess the word by adding the missing letters .

Student writes the letter if they say the correct one until one guesses it .

__ __ c __ __ __ e

Add the Missing Letters to get the phrase:

In class

Teacher asks a student to come in the front of the class.

Teacher shows the student the word**(guess what)**.

Teacher asks students to guess the word by adding the missing letters.

Student writes if the letter if they say the correct one until one guesses it.

___ u ____ ____ s   ____ ____ ____ t

- **Find as many words as you can. The more words you have, the more points you get**

e d w   t l i p u an s er s   k o

Possible answers:

poor -   slow   -   natural - darkness - two - pen - see - red - kill – old

- **Match the words on the left to the definitions on the right.**

1-improve	____	a- not be able to do anything without help.
2-natural	____	b-event that causes great damage to many people or things.
3-helpless	____	c-what somebody thinks will happen.
4-disaster	____	d-coming from nature and not produced by people.
5-enclosing	____	e- make better.
6-prediction	____	f- to put something in an envelope.

Answers:

1-e   2-d   3-a   4-b   5-f   6-c

- **Find and write ten careers in the square below , they may be horizontal or vertical.**

S	W	A	I	T	E	R	C	A
E	F	B	U	I	L	O	A	C
C	N	U	R	S	E	D	S	C
R	T	E	A	C	E	R	H	O
E	A	S	L	E	R	I	I	U
T	U	O	P	B	G	V	E	N
A	B	U	I	L	D	E	R	T
R	N	Q	D	Z	S	R	F	A
Y	E	F	A	R	M	E	R	A
G	S	M	A	N	W	Q	E	N
B	D	O	C	T	O	R	S	T

Answers:
Teacher - builder   - waiter   - nurse -   driver - secretary   - doctor - farmer - accountant- cashier

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Unit 7 Which way now?

Objectives: Ss are expected to :

1- Learn the words of the topic career choices .
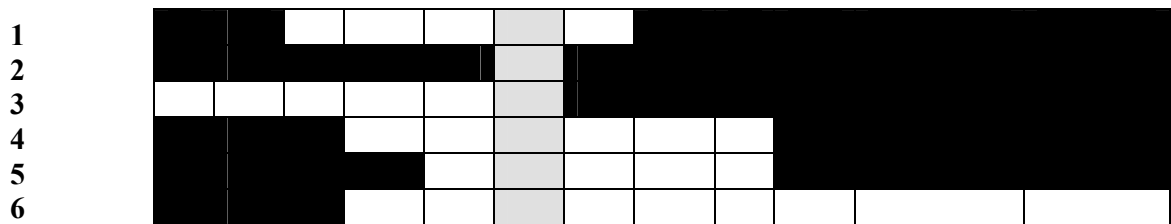

Vocabulary/career

In class

Teacher divides class into groups of six.

Teacher distributes the sheets.

Each student works individually , then discusses his findings with his group.

The first group to finds the word(career) is the winner.

Complete the following crossword puzzle with the appropriate word place corresponding to the clues to find the word:

1										
2										
3										
4										
5										
6										

1-the synonym of see

2-the first letter in English

3-a person who works in a hospital

4-after ten

5-a part of your body

6-the capital of Palestine

Answers					
1-watch	2-a	3-doctor	4-eleven	5-heart	6-jerusalem

Unit 7

Vocabulary/competitive

If you're a fighter, I am a fighter, too. If you're a player , I am a player, too. If you're in championship I am in front of you .I'm ……………………

Unit 7

Vocabulary/bored

It consists of five letters. The first letter is the second in alphabet. The last three letters are the color of blood.

What' s the word?

Work out the following puzzles rearranging the letters of the word or phrase in the box to produce a new word:

- I am able to change. Whatever you want to do is fine with me. I'm

  …………………………..

be ex fill

- It's an adjective. Having firmly decided to succeed in doing something.

  …………………………..

deed minter

- It's an adjective .Having the job or duty of doing or looking after somebody or something.

………………………….

robin sleeps

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In class

Teacher divides the students into groups of six.

Each group is divided into three teams of two; each competes.

The teams begin to break the code, the team which gives the right answer gets a mark.

On the other hand, if a team gives a wrong answer it loses a mark. The other teams in the group work as a jury.

Teacher moves around, helps with marks but doesn't give any answers.

At the end, each group present their findings.

The teacher displays a sheet of the answers.

Students repeat the words chorally.

Teacher confirm the meaning of the words.

Try to break this code to find the words

1	A	14	N
2	B	15	O
3	C	16	P
4	D	17	Q
5	E	18	R
6	F	19	S
7	G	20	T
8	H	21	U
9	I	22	V
10	J	23	W
11	K	24	X
12	L	25	Y
13	M	26	Z

1-4,5,3,9,19,9,15,14=……………………………….

2-18,15,21,20,5=………………………………..

3-18,5,19,16,5,3,20=………………………………..

4-15,21,20,4,15,15,18,19=……………………………

5-19,16,5,3,9,1,12,9,26,5=……………………………

ANSWERS= 1-decision   2-route   3-respect   4-outdoors   5-specialize

Add the Missing Letters:
In class
Teacher asks a student to come in the front of the class.
Teacher shows the student the word(**academic**).
Teacher asks students to guess the word by adding the missing letters.
Student writes the letter if they say the correct one until one guesses it .

___i _____ ___ ___ c ___

Add the Missing Letters
In class
Teacher asks a student to come in the front of the class.
Teacher shows the student the word(**qualifications**).
Teacher asks students to guess the word by adding the missing letters .
Student writes the letter if they say the correct one until one guesses it .

___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___

Add the Missing Letters
In class
Teacher asks a student to come in the front of the class .
Teacher shows the student the word(**vocational**).
Teacher asks students to guess the word by adding the missing letters
Student writes the letter if they say the correct one until one guesses it .

___ ___ ___ ___ ___ ___ ___ ___ ___ ___

- **Find as many words as you can. The more words you have, the more points you get**

r   e   a   o   u   s   t p   c f

Possible answers:

route - career - future - respect - top - far - soft - car

- **Match the words on the left to the definitions on the right.**

1-endless   _____   a- particular direction that you choose .
2-future   _____   b- something that you can choose in a particular situation.
3-option   _____   c- so long that there seems to be no end or limit.
4-route   _____   d- the part of your life that will come later
5-determined   _____   e-prepared to do something.
6-willing   _____   f- having reached a decision

- **Write five verbs which start with letter "d"**

- **Write five adjectives which end with letter "e"**

- **Write five nouns which start with letter "r"**

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Unit 8 Palestine :Holy land to the world

Objective: Ss are expected to :

1- Learn the words of the topic places to visit in Palestine.

Vocabulary/pottery

In class

Teacher asks students to look carefully at the two pictures.

Students spot the difference between the two pictures.

Students guess that the pottery on the table is the difference.

Unit 8
Vocabulary/inscriptions
In class
Teacher asks students to look carefully at the two pictures.
Students spot the difference between the two picture.
Students guess that the letter (N) on the stone is the difference.
Students know the meaning of the word inscriptions.

Vocabulary/vehicle
In class
Teacher asks students to look carefully at the two pictures.
Students spot the difference between the two pictures.
Students guess that the car and the bus are the differences.
Teacher explains that its a means of carrying or transporting something .(cars, buses…etc are called vehicles)

Vocabulary/ Pilgrim

It's worship of Allah in Islam imposed once in life time ………………….

Vocabulary/ leather

What 's it?

It's a noun consisting of seven letters. It's a material used to make shoes, bags ,coats, etc.

……………………….

Vocabulary/ archaeology

What's it?

It's a noun consisting of eleven letters. It's the study of things that were made and left by people in ancient times.

Vocabulary/ destination

Add the Missing Letters

In class

Teacher asks a student to come in the front of the class.

Teacher shows the student the word(destination).

Teacher asks students to guess the word by adding the missing letters.

Student writes the letter if they say the correct one until one guesses it .

___ ___ ___ ___ ___ ___ ___ ___ ___ __ ___

Vocabulary/ ascended

Add the Missing Letters

In class

Teacher asks a student to come in the front of the class .

Teacher shows the student the word(ascended).

Teacher asks students to guess the word by adding the missing letters.

Student writes the letter if they say the correct one until one guesses it .

‗‗ ‗‗ ‗‗ ‗‗ ‗‗ ‗‗ ‗‗ ‗‗

Vocabulary/ resort

A place where people go for relaxation or enjoyment .It consists of six letters. The
first two letters are a prefix which means again.The others are the synonym of type.
It's………………

Vocabulary/treasures /tiles/architecture

**Work out the following puzzles rearranging the letters of a word or phrase to
produce a new word:**

• Collection of very valuable things:

…………………………………….

austere rs

• Square objects that are arranged in rows to cover roofs, floors, bathroom
walls..etc.   :

…………………………………………………………………….

islet

• The art or practice of designing and building structures   :

…………………………………………

haircutter c e

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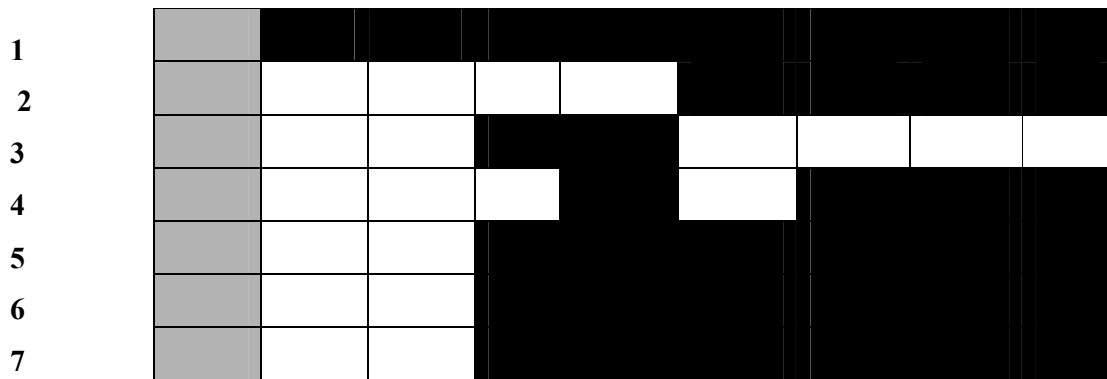
Vocabulary /destroy

In class

Teacher divides class into groups of six.

Teacher distributes the sheets.

Each student works individually , then discusses his findings with his group.

The first group to find the word(destroy)is the winner

Complete the following crossword puzzle with the appropriate word place corresponding to the clues to find the word which means hurricane(in the first column vertically)

1

2

3

4

5

6

7

1-the fourth letter

2-number

3-the opposite of happy

4-the opposite of short

5-color

6-the synonym of ancient

7- pronoun

Answers
1-d   2-eight   3-sad   4-tall   5-red   6-old   7-you

Worksheet (3)

- **Find as many words as you can. The more words you have, the more points you get**

o p d t s n a l r w i e g f

Possible answers:

lie - rise - port - great - large - wonderful - war - tall

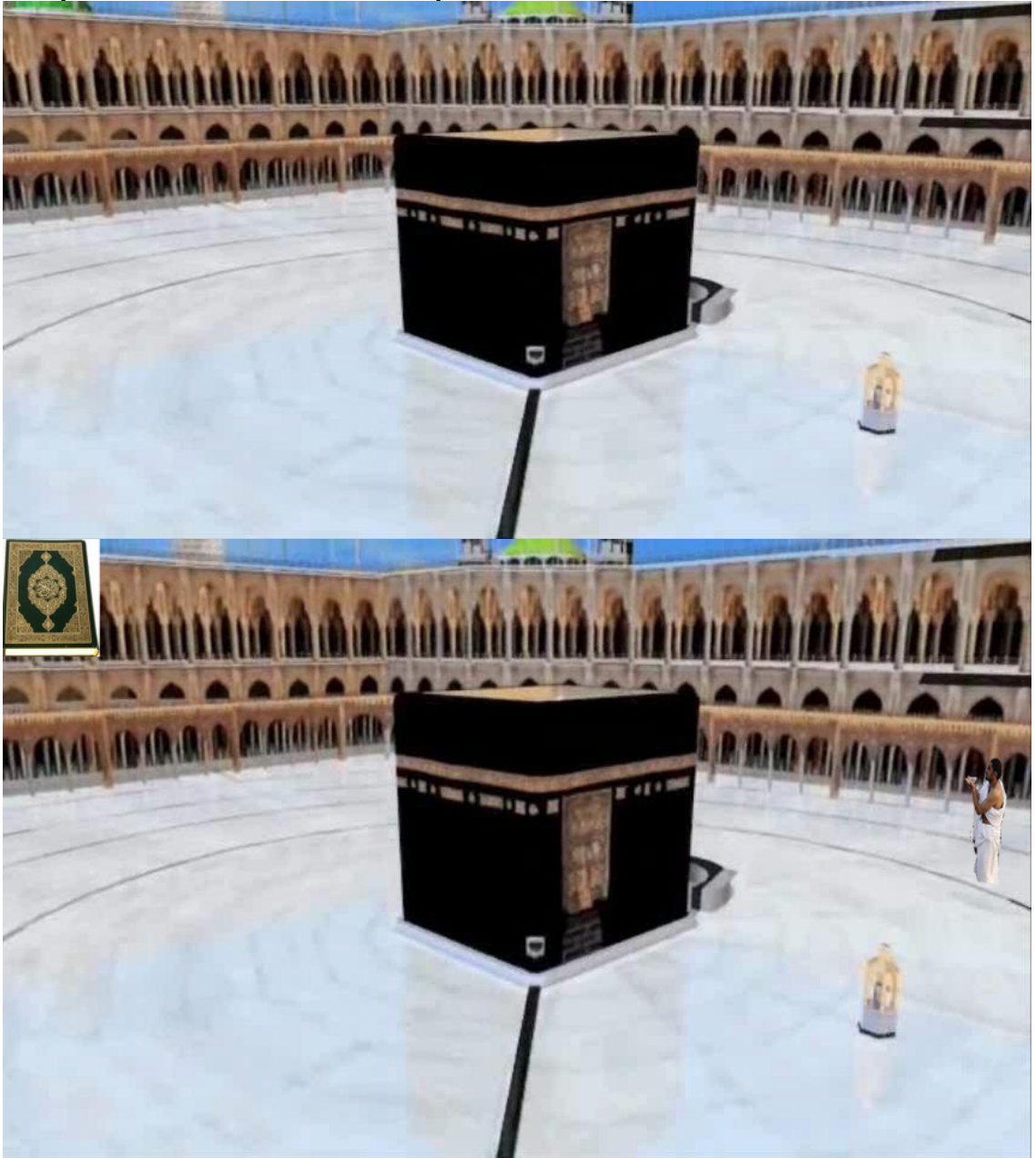- **Find words in the square below, they may be vertical or horizontal corresponding to the clues**

l	f	i	n	e	f
i	t	a	i	y	a
e	s	i	t	e	m
r	i	s	e		o
h	o	l	y	f	u
l	g	e	n	e	s
l	a	r	g	e	s

1- an adjective which means big .

2- an adjective which means well-known.

3-a verb which means be in a particular place.

4-a verb which means stand at a great height.

5-an adjective which means very good quality.

6-an adjective which means connected with religion .

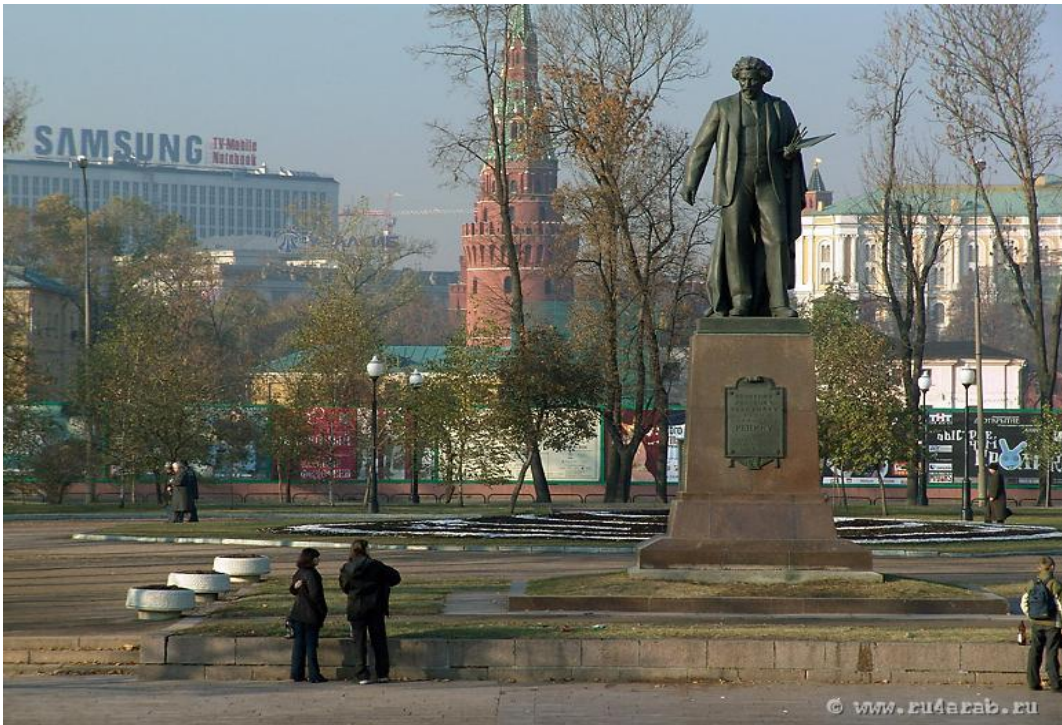7-a noun which means a place where something happens.

Answers

large- famous – lie- rise- fine- holy-site

- **Spot the differences between two pictures**

Answers:
Pilgrim – Holy Quran

Spot the difference

- **Spot the differences between two pictures**

- **Spot the difference**

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Appendix (4)

Referee Committee

Achievement test =1   Puzzles & Teacher Guide =2   Attitude Scale =3

No	Name	Qualification	Institute	1	2	3
1-	Prof. Abdulmo'ati Al-Agha	Ph.D Methodology	Islamic university	√		√
2-	Dr. Nazmi Al Masri	Ph.D Methodology of English	Islamic university	√		√
3-	Dr. Mohammed Hamdan	Ph.D Methodology of English	Gaza university	√		√
4-	Dr. Mohammed Atiya A. Raheem	Ph.D Methodology of English	Al Aqsa University	√		√
5-	Dr.shawki Ghannam	Ph.D English literature	Al Aqsa University	√		
6-	Dr. Jamal Al Faleet	Ph.D Methodology	Ministry of Education	√		√
7-	Dr.Suhil Dheab	Ph.D Methodology	Gaza university	√		√
8-	Dr.Mohamad Zaghot	Ph.D Methodology	Islamic university			√
9-	Dr.Hamdan Al-Sofi	Ph.D Education	Islamic university			√
10-	Dr.Fathi Kaloob	Ph.D Methodology	Ministry of Education			√
11-	Dr.Farid Al-Neirb	Ph.D Education	Al-Quds open university			√
12-	Dr. Kamal Al Faleet	Ph.D Education	Al-Quds open university	√	√	√
13-	Dr.Mahmoud Barghot	Ph.D Methodology	Ministry of education			√
14-	Dr.Dina A. Al-Jamal	Ph.D Methodology of English	Yarmouk university (Jordan)	√	√	√

15-	Dr. Abdollah Bani Abdel Rahman	Ph.D Methodology of English	Yarmouk university (Jordan)	√	√	√
16-	Ms.Shaimaa Elesthy	Teacher (M.Ed)	Ministry of education (Egypt)			√
17-	Mr. Hani El-Helou	Supervisor of E. L. (M.Ed)	Ministry of education	√		
18-	Mr. Kamal Abu Shamla	Supervisor of E. L. (M.Ed)	Ministry of education	√		√
19-	Mr. Mustafa Atwan	Supervisor of E. L. (M.Ed)	Ministry of education	√	√	√
20-	Mr. Mo'en Kheel	Supervisor of E. L. (BA)	Ministry of education		√	
21-	Mr. Mohamad Muhesen	Supervisor of E. L. (BA)	Ministry of education		√	
22-	Ms.Sahar Hassan	Supervisor of E. L. (BA)	Ministry of education		√	
23	Ms.Eman Shamali	Supervisor of E. L. (BA)	Ministry of education		√	
24-	Mr.Ismael Harb	Technical Director (BA)	Ministry of education	√	√	√
25-	Mr.Mahmoud Ferwana	E. L. Teacher(BA)	Ministry of education	√	√	√
26-	Mr.Motaz Al-Faleet	E. L. Teacher(BA)	Ministry of education	√	√	√
27-	Mr.Abu Bakr Bahir	E. L. Teacher(BA)	Ministry of education	√	√	√

الجامعة الإسلامية – غزة
The Islamic University - Gaza

عمادة الدراسات العليا

الأخ الفاضل الدكتور/ وكيل وزارة التربية والتعليم العالي   حفظه الله،،

السلام عليكم ورحمة الله وبركاته،

الموضوع: تسهيل مهمة طالب ماجستير

تهديكم عمادة الدراسات العليا بالجامعة الإسلامية بغزة أعطر تحياتها، وترجو من سيادتكم التكرم بتسهيل مهمة الطالب/ **فكري كامل خليل الفليت**، برقم جامعي **120110163** المسجل في برنامج الماجستير بكلية **التربية** تخصص **مناهج وطرق تدريس**، وذلك بهدف الحصول على المعلومات التي تساعده في إعداد دراسته للماجستير والتي بعنوان:

The Effectiveness Of Using Puzzles On Developing Tenth Graders Vocabulary Achievement , Retention And Their Attitudes Towards English Language In Palestine

شاكرين لكم حسن تعاونكم،

عميد الدراسات العليا

أ.د. فــؤاد علي العاجز

صورة إلى:-
❖ الملف.

السلطة الوطنية الفلسطينية

وزارة التربية والتعليم العالي

الإدارة العامة للتخطيط التربوي

الرقم: و ت غ/١/(٥٧٦٤)

التاريخ: 2012/12/17م

التاريخ: 4/ صفر/ 1434

السيد/ مدير التربية والتعليم – الوسطى   حفظه الله،

السلام عليكم ورحمة الله وبركاته

الموضوع/ تسهيل مهمة باحث

نهديكم أطيب التحيات، وبالإشارة إلى الموضوع أعلاه، يرجى تسهيل مهمة الباحث/ فكري كامل خليل الفليت، والذي يجري بحثا بعنوان " The Effectiveness Of Using Puzzles On Developing Tenth Graders Vocabulary Achievement, Retention And Their Attitudes Towards English Language In Palestine " وذلك لنيل درجة الماجستير في التربية من الجامعة الاسلامية، في تطبيق أدوات الدراسة على عينة من مشرفي ومعلمي اللغة الانجليزية وطلبة الصف العاشر بمديريتكم الموقرة، وذلك حسب الأصول.

وتفضلوا بقبول فائق الاحترام والتقدير

د. علي عبد ربه خليفة

مدير عام التخطيط التربوي

CURRICULUM VITAE (CV)

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