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Curriculum & English Teaching Methods Department**



**The Effectiveness of Using Educational Computer Games on
Developing Palestinian Fifth Graders' Achievement in
English Language in Gaza Governorate**

Thesis

Submitted by

Ghosoan Nafeth Qteefan

Supervised by

Dr. Awad Soliman Kishta

Dr. Kamal Rajab Murtaja

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The Effectiveness of Using Educational Computer Games on Developing Palestinian Fifth Graders' Achievement in English Language in Gaza Governorate

وبعد المناقشة العلنية التي تمت اليوم الثلاثاء 08 ربيع أول 1433هـ، الموافق 2012/01/31م الساعة العاشرة صباحاً بمبنى اللحيان، اجتمعت لجنة الحكم على الأطروحة والمكونة من:

.....	مشرفاً ورئيساً	د. عوض سليمان قشطة
.....	مشرفاً	د. كمال رجب مرتجي
.....	مناقشاً داخلياً	أ.د. عزو إسماعيل عفانة
.....	مناقشاً خارجياً	د. محمد عطية عبد الرحيم

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واللجنة إذ تمنحها هذه الدرجة فإنها توصيها بتقوى الله ولزوم طاعته وأن تسخر علمها في خدمة دينها ووطنها.

والله ولي التوفيق ،،،

عميد الدراسات العليا
ر
أ.د. فواد علي العاجز

بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ



﴿اقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ {1} خَلَقَ الْإِنْسَانَ مِنْ عَلَقٍ
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الْإِنْسَانَ مَا لَمْ يَعْلَمْ {5}﴾

سورة العلق

DEDICATION

I would like to dedicate my work to:

All those, who taught me a letter

My father, who is my good example to be followed.

My mother, who has scarified everything in her life for us

My hope in my life, my son Anas.

My brothers and sisters for their encouragement and support

All children in the world.

The souls of martyrs, who scarified their lives for Al-Aqsa Mosque and Palestine

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ABSTRACT

The study aimed to investigate the effectiveness of educational computer games on the fifth graders' achievement in English language in Gaza Western Governorates.

For answering the questions of the study , the researcher adopted the experimental approach. The sample of the study consisted of (70) male students from Beach Elementary Boys "A" school and (70) female students from Beach Preparatory Girls "G" school in Gaza. The educational computer games strategy was used in teaching the experimental group, while the traditional method was used with the control one in the first term of the school year (2011-2012). An achievement test of five scopes with (55) items was designed and validated to be used as a pre and post test.

The data of the study were analyzed, using T-test and One Way ANOVA . "Scheffe' Post Test" was used to identify the direction of the effect. An effect size technique was used to measure the effect size of the educational computer games strategy on the experimental group in each scope of the test.

The study indicated that there were statistically significant differences in the fifth graders' achievement of English language due to the method in favor of educational computer games strategy. It also showed that there were significant differences in the students' total achievement including all the language skills in favor of the experimental group of both genders. But, the differences which directed in favor of the female experimental group, didn't promote to be a very significant. It should be mentioned that the differences between genders were clear in the mean in favor of the female experimental group.

Based on those findings, the study recommended the necessity of implementing an educational computer games strategy in teaching English language to bring about better outcomes in students' achievement of English language. It was suggested also that further research should be conducted on the effect of educational computer games on different dimensions of learning English language and other school subjects.

ملخص الدراسة

"أثر استخدام ألعاب الحاسوب التربوية على تحصيل اللغة الانجليزية لدى طلبة الصف الخامس

الأساسي في محافظة غزة"

لقد هدفت الدراسة إلى التعرف على أثر استخدام ألعاب الحاسوب التربوية على تحصيل اللغة الانجليزية لطلبة الصف الخامس في محافظات غرب غزة.

وللإجابة على أسئلة الدراسة، استخدمت الباحثة المنهج التجريبي، حيث توزعت عينة الدراسة والتي تكونت من (70) طالبا من مدرسة ذكور الشاطئ الابتدائية " أ " و (70) طالبة من مدرسة بنات الشاطئ الإعدادية " ج " في منطقة غزة إلى مجموعتين (تجريبية و ضابطة). واستخدمت إستراتيجية ألعاب الحاسوب التربوية في تدريس المجموعة التجريبية بينما استخدمت الطريقة التقليدية في تدريس المجموعة الضابطة وذلك في الفصل الدراسي الأول من العام (2011-2012). ولقد قامت الباحثة ببناء اختبار تحصيلي مكون من (55) فقرة ومن ثم تم التحقق من صدقه وثباته واستخدم كاختبار قبلي وبعدي.

تم تحليل نتائج الدراسة باستخدام (اختبار - t) واختبار التباين الأحادي واختبار شيفيه بالإضافة إلى معادلة حجم الأثر وذلك لقياس حجم أثر ألعاب الحاسوب التربوية على تحصيل الطلاب في المهارات المختلفة للغة الانجليزية. وخلصت الدراسة إلى وجود فروق ذات دلالة إحصائية بين المجموعة التجريبية والمجموعة الضابطة تعزى إلى طريقة التدريس لصالح إستراتيجية ألعاب الحاسوب التربوية. كما أظهرت الدراسة وجود فروق لصالح المجموعات التجريبية لكلا الجنسين، ولكن هذه الفروق تتجه لصالح الإناث لكنها لا ترتقي إلى الدلالة. كما يجدر الإشارة إلى أن الفروقات بين الجنسين واضحة في المتوسط لصالح الإناث.

هذا وقد أوصت الدراسة بضرورة توظيف ألعاب الحاسوب التربوية في تعليم اللغة الإنجليزية لتحقيق نتائج أفضل في تحصيل الطلبة. واقترحت الباحثة ضرورة إجراء المزيد من الدراسات للتعرف على أثر ألعاب الحاسوب التربوية على الجوانب المختلفة في تعليم اللغة الإنجليزية وغيرها من المواد الدراسية.

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Chapter I

Study Background

Chapter I

Background of the Study

1.1 Introduction

Because commerce, travel, and academic activities frequently focus on English, it is the most popular language in the world and has become the most important foreign language (known as EFL) in many non-English-speaking countries. The ways in which students' listening, speaking, reading and writing abilities can be improved are critical issues in these countries. Therefore, developing effective and efficient approaches to increasing practical opportunities in actual contexts, and thus improving students' learning outcomes and motivation has become an extremely important research topic.

English has, lately, established itself as the most popular language in the world. It may be considered the first world language. Al-Ghunaimi (2003) states that English language has been the language of "globalization". Therefore, English as a foreign language has been of considerable importance in curriculum in most Arab countries to enable students to cope with modern life and develop their countries.

English, being the most widely spread language becomes an issue of interest that increases rapidly. In the Middle East area, governments provide programs for English language in almost every school and university (Keshta, 2000). Realizing the importance of English language, Palestinian National Authority began its promising project of introducing Palestinian students to English from the first elementary grade.

It is obvious that the demand for learning foreign languages has increased, however the history of teaching and learning foreign languages often appears to have been a history of failure (Karal, 2000). Though many theories, studies and researches tackled this issue, each tried to provide teachers and learners with a better way of teaching and learning foreign languages. Language learning is still a hard task which sometimes turns to be frustrating (Lewis and Hill, 1995).

To overcome frustration and bring about effective foreign language learning, effort is required at every moment and must be maintained over a long period of time. (Deesri, 2002). On one hand, teachers should shift the angle and give prominence to language practice within an interesting and enjoyable environment (Kara, 1992). On the other hand, they should avoid the perceptions that all learning "should be serious and solemn in nature, and that if there is

hilarity and laughter, there is no real learning" (Kim, 1995:P.35). They should believe that it is possible to learn languages as well as enjoy oneself at the same time.

The quality of the teacher in any educational system is the most significant factor. Since we live in an age of science and technology, education can never remain static in this age of knowledge and population explosion. Consequently, the teacher is not so far merely a collector of facts or a walking encyclopedia who provides information to the young, but should act as their guide, philosopher and friend. He should be the skilled builder of their characters, trainer for their bodies and developer of their intellects(Bourai, 1991).

Being the basis of the syllabus implementation and the manager of the teaching process, the teacher of language has the responsibility to use the most convenient techniques that help the students acquire language in away that appeals to the modern requirements(Al-Laqqani, 1994). As a result of this fact, learners need to be provided with an atmosphere that will help to stimulate their imagination and creativity through activities appropriate to their own world. In this sense, teachers should modify their teaching techniques and strategies in a way that appeals to students' abilities, aptitudes and modalities, and create that promising classroom environment where students learn English language through amusement and enjoyment (Cakir, 2004). One of these effective techniques for using technology in the field of language learning is educational computer games.

Rapid developments in information and communication technologies have affected all areas of life including education and this has brought about changes in the structure and implementation of education, and the roles of individuals in education. For this reason, many educational institutions have begun seeking new models to meet the needs of their students. In order to make learning activities more effective, an environment rich in stimulants should be provided to students. One of the elements that provide such an environment is computers (Arslan, 2006). The spread of computer use in education and increase interest in computer games bring to the mind that using computer games in learning environments can be useful (Donmus, 2010).

Several authors (e.g. Colby, 2008; Moberly, 2008; Owston, 2009) maintain that this mode of learning can be more enjoyable, more interesting, and, thus, more effective than traditional learning modes. Computer games have several advantages over other instructional media, the main one being their extremely compelling and engaging nature, and constitute

potentially powerful learning environments for a number of reasons (Papastergiou, 2009): (a) they can support multi-sensory, active, experiential, problem-based learning, (b) they favor activation of prior knowledge given that players must use previously learned information in order to advance, (c) they provide immediate feedback enabling players to test hypotheses and learn from their actions, (d) they encompass opportunities for self-assessment through the mechanisms of scoring and reaching different levels, and (e) they are increasingly becoming social environments involving communities of players.

In this regard, The purpose of games is to reinforce the learnt language through practice (Shaptoshvili, 2002 and Harb, 2007). Zdybiewska (1994:p.6) states that "games are a good way for practicing language as they provide a model of what learners will use the language for in real life". Moreover, games have become an essential part in the teaching-learning process that can enhance the extrinsic motivation towards learning. They can make the dulllest lesson exciting for both adults and children.(Hong, 2002).

Richard-Amato (1996) holds that games not only make learners use language instead of thinking about learning the correct forms, but they can also lower the students' affective filter and anxiety as well, thus make the language acquisition process more likely. Games are highly motivating and entertaining. They give shy students the opportunity to express themselves freely. Furthermore, to quote Richard-Amato (1996:p.192), " they add diversion to the regular classroom activities, break the ice and are used to introduce new ideas as well". Games, therefore, should not be regarded as a marginal activity, filling odd moments when the teacher has nothing better to do. Rather, they should be used in the heart of teaching foreign language.

Uberman (1998:p.23) claiemes that "games encourage, entertain, teach and promote fluency. If not for any of these reasons, they should be used to help students see beauty in foreign language not just problems that at times seem overwhelming". Shevin, et.al (1994) state that the richness of the educational experience is improved for all students when they are active participants in a mutually supportive promising environment.

It is obvious that the Palestinian community respects education, but in fact the unexpected low rate of success in UNRWA schools all over the Gaza strip is a problem which deserves to be studied. Due to the researcher's experience in teaching, the teachers' traditional methods in teaching English can be considered a remarkable part of the problem. The heavy

burden which strikes the shoulders of students by dumping them with complicated structures taught out of context in a dark environment lacking interaction and reinforcement will frustrate students (Abo Oda, 2010).

The researcher, being a teacher of EFL in UNRWA Schools, noticed this problem. This problem may be attributed to different things, but most teachers assured that new authentic techniques may contribute to solving this problem and increase the pupils' English achievement. The researcher believes that UNRWA is doing extraordinary efforts to improve the pupils' English achievement since it is looking forward to achieving an electronic school. Every school has a computer lab equipped with Smart Board that enables the students practice the computer skills.

In the light of what preceded, the researcher suggested a new strategy that holds a collection of computerized games in order to develop the students' learning language and to improve their achievement through amusement and enjoyment. The designed program of computer games contains some activities related to the fifth grade curriculum. And applying such program may support the student's learning of English and upgrade the teachers' performance. So, this study examines the effectiveness of using educational computer games on developing the fifth graders' achievement in English language in Gaza governorates.

1.2 Statement of the problem

The researcher believes that the problem of the present study springs from students' low achievement in English language tests, lack of motivation and weak participation in class. This problem was documented through the researcher's experience in teaching and exam results, data analysis and consultation of other teacher colleagues as well. It should be mentioned that Education Department in UNRWA computerized materials supported by computerized activities in other school subjects. They gained the student's acceptance and motivation towards learning. Hence, it is so important to carry out such a study in English in order to improve student's achievement through using suggested educational computerized games.

1.3 Research questions

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

What is the effectiveness of using educational computer games on developing the fifth graders' achievement in English language in Gaza Western governorate?

The problem of the study can be more explained in the following related questions:

- 1- Are there statistically significant differences at ($\alpha \leq 0.05$) in the achievement level between the students who learn English language through educational computer games (experimental group) and those who learn English language through the traditional method (control group)?
- 2- Are there statistically significant differences at ($\alpha \leq 0.05$) in the achievement level between the high achievers in the experimental group and their counterparts in the control one?
- 3- Are there statistically significant differences at ($\alpha \leq 0.05$) in the achievement level between the low achievers in the experimental group and their counterparts in the control one?
- 4- Are there statistically significant differences at ($\alpha \leq 0.05$) in the achievement level between the experimental group and the control one due to gender?

1.4 Research Hypotheses

- 1- There are no statistically significant differences at ($\alpha \leq 0.05$) in achievement level between the students who learn English language through educational computer games (experimental group) and those who learn English language through the traditional method (control group).
- 2- There are no statistically significant differences at ($\alpha \leq 0.05$) in achievement level between the high achievers in the experimental group and their counterparts in the control one.
- 3- There are no statistically significant differences at ($\alpha \leq 0.05$) in achievement level between the low achievers in the experimental group and their counterparts in the control one.
- 4- There are no statistically significant differences at ($\alpha \leq 0.05$) in achievement level between the experimental group and the control one due to gender.

1.5 The Purpose of the study

The overall purpose of this study is to develop fifth grade students' English language achievement through the use of educational computer games. Accordingly, related suggestions and recommendations may be offered.

1.6 The significance of the study

Computer game skills have been increasingly applied in almost all areas of human activity within modern societies (Gee,2004). As a popular and powerful media, computer games are being considered for use in educational setting to motivate students, to focus their attention and to help them to construct meaningful and permanent records of their learning.

For what preceded, the significance of the study lies in its attempt to:

- 1- Introduce computer games that may be utilized in schools to promote the students' abilities to practice the language through amusement and enjoyment.
- 2- Attract the attention of English language teachers to the importance of implementing computer games in their classes.
- 3- Provide the planner, designer and writer of the curriculum with activities based on computer games.
- 4- Benefit educational supervisors, who guide the performance of the teachers and monitor the process of syllabus implementation.

1.7 Operational Definition of terms

1- Computer games:

Computer games, taking its place in game culture with the advance of technology, provide surfing in the virtual environment in which rich discovering opportunities are available and create appropriate content for transferring exercising skills into real world (wheeler, 2009).

2- Achievement:

Achievement is the cognitive product of the teaching process. It is the act of achieving, performing, and obtaining by exertion; successful performance; accomplishment; as, the achievement of his object. It concentrates on the knowledge and experiences introduced in the content and acquired by learners through various learning situations and experiences. Achievement is measured by the marks the learner gets in the examinations.

3- Effectiveness:

The change in the learners' achievement level in English language that may result from implementing the suggested computerized games.

4- Game:

According to Alcorn (2003), games are a kind of play and other rivals used in class in order to achieve certain goals and have special rules. In order for an application to be a game, it requires to have rules and certain targets to be followed. Moreover, Piaget defined game as assimilation of stimuli from outside world and put them into adaptation system (Donmez, 1992).

5- Educational games:

They are individual or group games that have cognitive, social, behavioral, and/or emotional, etc, dimensions which are related to educational objectives. In addition, games are free

activities that are based on the concept of fun. Furthermore, Educational games are activities that provide students with the opportunity to reinforce the previous knowledge by repeating it in a more comfortable environment (yildirim, 2009). Educational games are software that helps students to learn the lesson subjects and to develop their problem solving skills by using their desire and enthusiasm to play (cankaya & karamate, 2009). Finally, they are educational means used in English language class that help students acquire language through co-operative or competitive practice within certain rules (Harb, 2007).

6- Play

It is an innate activity performed individually or chorally for enjoyment and serves as a means for developing the different aspects of the child's character.

7- The fifth graders:

They are the pupils who are enrolled at the 5th grade at the basic schools in Gaza Strip and West Bank. They are between nine and ten years of age.

8- High achievers:

Students whose total score in the achievement test in English language lies among the highest 25% of other students' score.

9- Low achievers:

Students whose total score in the achievement test in English language lies among the lowest 25% of other students' score.

Chapter II

Literature Review

Part 1: Theoretical Framework

Educational Computer Games in

Learning English

Chapter II

Literature Review

2.1 Technology Integration Process:

Preparing to integrate the Computer in the Learning Experience.

Introduction

Rapid developments in information and communication technologies have affected all areas of life including education, and this has brought about changes in the structure and implementation of education and the roles of individuals in education. For this reason, many educational institutions have begun seeking new models to meet the needs of their students. One of the elements that provide such an environment is Computers (Arslan, 2006). The spread of computer use in education and increase interest in educational computer games bring to the mind that using educational computer games in learning environment can be useful (Gungormus, 2007).

2.1.1 Technology in Language Education

Today, the use of technology is one of the most important factors for Language teaching to be more effective. Tape- recorder, video, TV, computer, mobile applications and internet have been used in technology supported language teaching. Computers, mobile phone, PDA whose use has been increasing, are indispensable part of language education. The use of these technological devices is also important in fields ranging from arts, economics, education to entertainment, sport and health (Donmus, 2010).

Dudeney& Hockly (2009: P.7) indicate that the use of technology in the classroom is becoming increasingly important, and it will become a normal part of ELT practice in the coming years for many reasons:

- Younger learners are growing up with technology, and it is a natural and integrated part of their lives. For these learners, the use of technology is a way to bring the outside world into the classroom. And some of these younger learners will in turn become teachers themselves.
- English, as an international language, is being used in technologically mediated contexts.

- Technology, especially the Internet, presents us with new opportunities for authentic tasks and materials, as well as access to a wealth of ready-made ELT materials.
- Technology is offered with published materials such as course books and resource books for teachers.
- Learners increasingly expect language schools to integrate technology into teaching.
- Technology offers new ways for practicing language and assessing performance.
- Technology is becoming increasingly mobile. It can be used not only in the classroom, lecture hall, computer room or self-access centre, but it can also be used at home, on the way to school and in Internet cafes.
- Using a range of Information and Communications Technology (ICT) tools can give learners exposure to and practice in all of the four main Language skills: speaking, listening, writing and reading.

2.1.2 Benefits of Technology in Education

Barron & Orwig (1994) cite the following benefits of technology in education:

- Multisensory delivery

Some students learn better through specific modalities, such as audio, visual, or kinesthetic (Barbe & Swassing, 1979; Dunn & Dunn, 1978). In other words, one student may be an audio learner and benefit most when instructions are delivered through sound and narration. Conversely, another student may be a visual learner and benefit most through pictures and text. Multimedia provides instruction through multiple sensory channels, allowing students with various learning styles to benefit.

- Increased self-expression and active learning by students

New technology provides stimulating environments for students to be active in the learning process. In other words, instead of reading about Martin Luther king, in a book, students can hear his speeches, witness his marches, and analyze documents related to civil rights through multimedia.

- Cooperative learning

Technology provides many opportunities for students to work cooperatively, in which they could interact positively and effectively together.

- **Communication skills**

Communication skills can be enhanced by utilizing technology in small groups and through the use of networks. In addition, computer- based telecommunications can be particularly beneficial for instruction that involves problem solving, decision making, and other critical thinking skills (Steinberg, 1992).

- **Multicultural education**

Technology can help students gain greater understanding of different cultures.

For example, telecommunications make it possible to link students and teachers in national and international exchanges.

This interface enables students to build cultural bridges by investigating common problems from different perspectives.

- **Motivation**

Technology can inspire students (and teachers) by making learning exciting and relevant.

For example, students have found it very motivating to correspond through educational computer games.

2.1.3 The Psychology of Using Technology

Sampath, et.al (2002: P.32) indicate to an old saying which reads

"I hear, I forget;
I see, I remember;
I do, I understand"

It is obvious that if the teacher depended too much on verbal exposition, this make it difficult for the individual to visualize objects and events, so this leads them to hear and forget. On the other hand, if the students see, they remember. It is quite natural that the knowledge gained through the sense of sight is vivid, accurate and permanent.

More effectively, if one is engaged in any practical activity, involving physical work, all the senses are used to perceive knowledge through all the senses. Hence, in flow of knowledge is through many channels and naturally is quick, complete and accurate. This is learning by direct experience. It is an ideal method of making pupils acquire complete knowledge.

From what preceded, one could deduce that a pupil profits most from instructions when he/she becomes involved through his/her own interests and purposes and such an involvement is possible when concepts and principles are introduced to him through well- chosen

educational media appealing to the different senses. Such a pupil will also act creatively. Hence, educational computer games match with the psychology of students, since they enable students to be involved in doing tasks with enjoyment and interest.

2.1.4 Features of the educational system in the era of information technology

Technology contributed in changing the features of the educational system with its various components. For example, It helps in changing the role of the teacher from an information lecturer to a facilitator, mentor, leader and good trainer. Technology also helps in changing the learner's role from a knowledge recipient to researcher, explorer, investigator and expert sometimes (Gordan, 2003)

The following table illustrates changes

Educational Practices	From	To
School activities	teacher centered	learner centered
Teacher's role	Reader of the fact and he is the only source of the educational material	cooperative guide
Student's role	information listener	expert discoverer
Educational goals	Focus on the facts	Constructing relationships to help innovation in performance
Knowledge concept	Piling lots of facts	Constructive beneficial
Success guide	memorizing facts	Comprehension quality
Evaluation	Linear, normative references	Non-linear

Buffy and Mizell (2003) clarify that changes occur in the system as a result of the use of information technology in the following shifts:

- From Linear learning to non-linear multimedia learning
- From instruction to construction and discovery
- From teacher centered to learner-centered
- From memorizing to knowledge guide
- From school education to lifelong learning.
- From imposed education to adapted education according to the nature of each learner
- From sender teacher to learning facilitator

E-Learning

2.1.5 Definition of E-Learning

Zaitoon (2005) states the concept of e-learning as the process of formation which is in continuous modification because it is related to educational technology that grows bit by bit.

But the most popular slogan is: At any time, any place, any pace or any path.

Zaitoon concludes that e-learning is the process which consists of two main functions:

1- A pedagogical process which is concerned with submission of content electronically through several computer multimedia and networks so as to allow the learner to interact effectively.

2- An administrative systematic process related to employing a combination of educational multimedia and the working team.

Clearly, e-learning can be defined as a form of Distance Learning based on the possibilities and tools of international information network, the Internet and computers studying a specific learning content through constant interaction with the teacher / facilitator, the learner and the content.

2.1.6 Principles of e-learning

There are some principles for e-learning as pointed out by Abdel-Aziz (2008):

1- Interactivity

This first type of interaction is the one in which the active learner interacts with the content during answering exercises and performance of some activities waiting for feedback from the teacher, the learner or the allocated electronic programs.

The second type of interaction is the social and personal interaction with the teacher and peers where there is interaction between questions and discussion between learners and their teacher. The interaction can be asynchronous or synchronous.

2- Learner Centered

The learner is the only beneficiary of the variety in the use of e-learning tools. These tools contribute in surveying the teachers' needs and their learning styles. This makes this system unique compared with traditional education systems.

3 - integration

Traditional tools which teachers used to use for a long time become different completely in form and abilities as they turned from Macro to Micro. In addition, the integration of its parts led to decreasing time and place distances.

4 - Support and promote continuous learning motives

E-learning improves learners' abilities and motivation and helps them depend on themselves in education. Repetition and practice are the most important characteristics that e-learning relies on. Learners can refer to many areas at any time to acquire the skills and knowledge needed. Consequently, this guarantees that educators can acquire knowledge according to their ability.

5 - Flexibility and Equality

E-learning is a flexible learning as it provides the opportunity for learners to learn at the suitable time and in the favorite environment according to their ability. Information Networks enable the users to skim and scan electronic pages freely.

6- Cooperative Learning

The teacher as a (Facilitator) is able , by the help of learners, to use several teaching strategies to help achieve the collective learning, such as brainstorming through continuous discussion and problem solving.

2.1.7 E – learning tools based on computer

Smaldino, et.al (2009) cite that computers are one of the key instructional technologies used in education. The computer has a multitude of roles to play in the curriculum, ranging from tutor to student learning tool. The computer has a multi-tasking tool in teaching and learning, since it is considered an effective machine that helps in carrying lots of tasks continuously such as writing, saving data, etc... So, the computer can manage all things.

The following are points that shed light on such distinguished multi-purpose tool:

1- The computer as a teacher

Newby, et.al (2006) indicate that the computer is a tool that presents instructions directly to students. Such use is usually termed computer- assisted instruction (CAI), computer- based instruction (CBI), It can present instructions, use various media (text, graphics, audio, video), provide instructional activities, situations, quiz or otherwise require interaction from learners, evaluate learner responses, provide feed-back, and determine appropriate follow-up activities.

2- The computer as a student

Smaldino, et.al (2009) state that educating students have shifted from providing information to students to opening doors for them to explore and to create meaningful learning experiences for themselves. Computer technology has been incorporated into this process. The implication is that the educators are moving away from the idea of school as a place to get knowledge to the view that school is a place to learn how to learn.

Abd Al- Azzez (2008) explains that the computer can play the student's role and to be as Tutor. It means that the computer becomes a student and the student becomes a teacher to the computer. The purpose of the user/ student is to teach the computer to do some tasks. In order to achieve this purpose, the user must learn first how to fulfil the task, then this fulfillment could reach the computer in a way that enables the computer to accommodate it.

3- The computer as an assistant

In the role of assistant, the computer aids the learner in performing routine work tasks. Important computer applications that fall into this category include word processors, graphics tools presentation software, computer databases, electronic spreadsheets, and telecommunication/ Internet tools.

Practically, the computer is a productive tool that assists the learner. For instance, secretaries prepare documents using word processors, business people store customer records

in databases, accountants use spreadsheets to calculate, and so on. So, it makes sense that students should learn to use computers in schools in the same ways that they are used in the work place New by, et.al (2006), Abd Al-Azzez (2008).

Means (1994) argues that in order to provide students with beneficial computer-based activities, it is important to plan instructions for activities that are supported by computers. She further lays out main categories to classify the various types of learning using computer. More, she indicates that computers in language learning can be used as:

- A tutor
- An exploratory environment
- A tool; and
- A communication media

It is important for teachers to understand the different categories of computer usage before they incorporate computers into their lessons. Without any understanding of the different categories, teachers may not be able to fully utilize the use of computers in their lessons.

2.1.8 Computer and English language Instructions in our Classrooms

English teaching is different from other school subjects especially for the pupils in the elementary cycle. English teachers use special instructions when dealing with the English textbook because pupils find some difficulty to learn it by themselves. In terms of language instruction, the use of computers has a great influence on education, especially in teaching the foreign language. Computer- supported learning environment is predicted to be an authentic learning environment and this condition helps students to learn English better than the daily classroom context (Egbert and Jessup, 1996). The change of the direction of the education system to focus on the social context opens wider perspective to implement computers in education.

2.1.9 Computer and English Curriculum for Elementary Pupils

The new vision of education technology dominated all components of teaching/ learning including the curriculum. The shape and size of the textbook was modified to suit the computer-based English lessons. To enhance the "high tech" world of students, teachers are feeling the pressure to integrate more computer technology into the curriculum. As a result, teachers are constantly advised by officials and decision makers to connect the classroom to the outside world. However, if teachers are not using computer technology, they are ignoring

an important portion of their students' environment (Cummings, 1998). In this regard, McDonald and Hershman (1997) indicate that teachers need to be prepared to use a variety of technological hardware and software when teaching students by computers.

Morton (1996) claims that when computers are used, the following learning processes are engaged:

- 1- gathering information,
- 2- teaching with a facilitating teacher,
- 3- involvement in experiential learning,
- 4- face-to-face communication,
- 5- expanded creativity, and
- 6- testing of new knowledge.

Murphy (1995, p.11) also summarizes the following learning outcomes that result from the use of computers in classroom:

- 1- social growth,
- 2- problem solving,
- 3- peer teaching,
- 4- independent work; and
- 5- Exploration.

As a result of using computers in their classroom to make choices that initiate their own activities, students view computer technology as part of their active learning. This rich environment was computer for them and was viewed as a "celebration of learning" (Murphy, 1995).

Bennett (1987) collected important data about the use of computer technology in a Native American classroom. She claimed that the computer was a visual tool and that it provided the "concreteness" that is needed for many students, especially those in special education. Students learned quickly when they have both visual and verbal cues; picturing a concept helped the learners actually to see and to remember it. Bennett also points out that promoting communication skills was another advantage of using computers in the classroom. Working on computers in pairs and groups encouraged learners to talk with each other and contributed to the "team spirit" approach. Bennett concludes that computers motivated

students' willingness to finish given tasks, even when the process required long periods of time.

2.1.10 Teacher and Student Roles in Computer-based English Lessons

The computer-based learning strategy made a big change in the teaching/ learning process. As a result, the elements of the educational situation adopt a different trend when dealing with English lessons based on computer programs. Below is a detailed explanation of the new role of both teachers and the pupils as a result of integrating a computer-based strategy into classrooms.

- Teachers' Role in Computer-based Procedures

In many EFL contexts, the English language teacher is the main agent in providing communication practice and opportunities; for s/he is the main resource person from whom students seek information on and about the target language. The teacher also controls the input and pace of learning. However, with the introduction of computer-based programs into the classroom, pupils not only have access to a wider variety of resources and opportunities to practice English, but also have more autonomy in selecting what, how much and how fast they want to learn. Thus, teachers need to adjust to this change. They are required to practice new roles such as facilitator, guide, advisor, and helper to the pupils.

Computer- based learning has also been associated with the advocacy of a learner-centered learning environment. To describe the basic principles underlying the learner-centered curriculum, Nunan (1988) states that:

It is impossible to teach learners everything they need to know in class. What little class time there is must therefore be used as effectively as possible to teach those aspects of the language which the learners themselves deem to be most urgently required, thus increasing surrender value and consequent student motivation. (p.2,3).

To sum up, the integration of CBL into a foreign program may lead to great anxiety among language teachers. Researchers consistently claim that CBL changes, sometimes radically, the role of the teacher, but does not eliminate the need for a teacher altogether. Instead of handing down knowledge to students and being the center of students' attention, teachers become guides as they construct the activities.

- Students' Role in Computer-Based English Periods

Along time ago, pupils were accustomed to getting the information from their teachers. They were completely passive learners of English; however, the new trend of education makes them carry different roles when dealing with computer CDs.

Students need to adjust their expectations of their participation in the class in order to use CBL effectively. Rather than passively absorbing information, learners must negotiate meaning and assimilate new information through interaction and collaboration with someone other than the teacher and be that person a classmate or someone outside of the classroom entirely. Pupils must also learn to interpret new information and experiences on their own terms. However, because the use of technology redistributes teachers' and classmates' attentions, less-able students can become more active participants in the class because class interaction is not limited to that directed by the teacher. Moreover, more shy students can feel free in their own students-centered environment. This will raise their self- esteem and improve their knowledge (Sharma, 1998).

In this regard, Robertson, et.al (1987) in their study tried to examine the effect of using computer- based learning on enhancement of self esteem. The result showed that students who were exposed to the experimental treatment scored significantly higher on self- esteem than the control group students. The finding of this study emphasize the potentials of computer-based learning for enhancing students' self- esteem.

The researcher clarified several possible reasons beyond the positive effect of computer on students' feelings about themselves. They are as follows:

First: mastery of subject matter content and development of computer literacy may be potential sources of positive affective development. Further, external support, especially in the form of peer group reinforcement, appears to contribute to positive attitudes. In addition, the consistent reinforcement offered by the computer is an optimal reward situation. Moreover, the freedom from embarrassment, disapproval, and diminished status, often accompanying a mistake in the classroom is reduced by the privacy of computer learning situation. Finally, this reduction in negative reinforcement allows the student to learn through trial and error at his or her own pace. Therefore, positive attitudes can be protected and enhanced.

Finally, the partial release of the teacher from the role of constantly pressuring students to master subject matter content, that means the teacher is less frequently involved in situations

where it is necessary to give the students negative reinforcement. Based on the above observations and clarification, it is reasonable to expect that the students' self-esteem should be enhanced through participation in classrooms employing (CBL).

2.1.11 Computer and Success in English

Computers have now become an everyday part of our lives. Deaton (1990) states that:

Whether or not we touch a computer, it is almost impossible to escape its daily influence on us; from speedy information transmittal, printouts, and receipts, to control of lights and temperature of our workplaces (Deaton, 1990, p.1)

Computer literacy is no longer an option in today's job market. The roles of computers in the workplace have expanded in recent years. Skillful use of the computer is a critical factor in achieving success in many fields (Furst-Bows, et.al,1996).

Educational institutions prepare students for employment and employers are looking for employees who are able to use computers to access information. As a result, integrating computers into conventional non-computer classrooms is essential for the success of students and future employees (Soine, 1996).

Schools teach students the skills necessary to interpret the mass of information available through computer technology. This helps to improve the overall student learning and provide students with skills that prepare them for life after school and a future of change (Wilmore, 2001).

There is a variety of patterns and advanced styles for using computer as a teaching and learning tool. One of these patterns is Game Programs.

2.2 Learning Through Play

Introduction

There is too much seriousness and not enough levity in most of our lives, so why a very dull diet, they may get a little overexcited, or show initial reluctance. But games are universally enjoyed, and encourage real attention to the task, and intrinsic interest in the subject matter. (Pretty, 2004). A play is a common, even universal childhood activity. It is a primary natural and normative means for the question and assimilation of many types of information (Lababidi and khalileh, 1993). A play is also a superb means of inquiry. Research has found that it is a serious activity. It links aim and medium while providing enjoyment, and allows users to overcome obstacles without becoming frustrated (Jebrin, 1980; Bruner, 1986).

Alkhalda (2003) indicates that a play is a human phenomenon that represents one of the life joys; love, play and success. As a result, specialists, researchers and educators try to exploit and invest this phenomenon for man's development and education. Moreover, it is considered as an educational activity for it stimulates memory, thinking, speaking as well as other skills. It can also be a productive educational tool that contributes to traditionally taught skills in reading, writing and facts. In addition, it has value as a method of putting theory into practice (Lloyd, Lola, David, 1998).

According to Froebel, a play can aid children's recognition of the concrete environment that surrounds him. So in order to be educated in a discipline way, he/she should make an organized interaction with his/her surroundings. This happens through practicing games which may help in increasing the relations and connections that one might form during his growth.

2.2.1 Definition of play

As a theoretical concept, the definition of a play is a task with ambiguities; different definitions lend themselves to different researchers and specialists due to their various perspectives.

- Akel (1988:p. 292) cited in Abdelateef, et.al, (1995) defines a play as "An activity in the form of motion or work performed individually or chorally that uses the mental and kinetic energy for no goal but excitement and enjoyment".

- Good (1975) cited in Al- Hela, (2003) and Balqees & Maree, (1987) defines a play as "a free or a guided activity performed by the children for enjoyment and entertainment and used by

adults to develop the children's characters in different aspects, mentally, physically, emotionally and socially".

- Al Hela (2002:p.18) defines a play as "a free activity that could be invested for developing children's behaviors and characters".

- Abu Jaber (2003: p.221) defines a play as "an activity where players exert efforts to achieve certain goals in the light of specific rules".

- Piaget cited in Al- Ghareer & Al- Nawaysa, (2010) sees a play as "an assimilation process that aims at converting information to suit the individuals needs. Play, simulation and imitation are integral parts in intelligence and mental development".

- Banner (2005: p.16) defines a play as "a vehicle for increasing neural structures and a means by which all children practice skills they need later in life".

- Altman (1986: p.10) suggests that " A play is a behavior format which can facilitate rapport and communication, and through which information and learning can pass between child and adult. Through play, the child learns by doing with the least amount of resistance".

- Abed Rahman (2001: p.282) defines a play as "the natural activity practiced by children since their birth till advanced stages in their life with relatively different degrees. basically, a play is an activity performed by the child for pleasure and excitement".

While a play in scientific terms is the way through which the child learn, it is the representation of practical life with suitable equipment in children's hands. During this active learning process, children are encouraged to discover the world around them by exploring and playing. A play is very important for the child's development in all sides. It represents a turning point for the child from being totally dependent on the adults to becoming an independent adult (Abdallah, 2009).

Studying the previous definitions, the researcher determines what the play is. It is a subjective process performed individually or chorally for pleasure and excitement and used to develop children's characters in different aspects, mentally, physically, emotionally and socially. In other words, the child through play learns and develops individually.

2.2.2 Theories of Play

There are many theories which encourage this activity and emphasize its positive effect on a human being physically and mentally. One of these theories is the "Increasing Power" theory of Spencer and Sheller which assumes that the main job of the activity of the play is

getting rid of the increasing potential power of human's body which is considered as a biological operation that serves the living being (Abed Latif, et.al, 1999).

On the other hand, the Preparatory theory for Gross considers play as an important biological operation which prepares a being for future activities in his work. This theory considers childhood as a stage which is full of play, and which is a preparation for adult activities. (zahran, 1977).

Moreover, Crystal (1996) cited in Qattami (1991) suggests that students prefer the strategy of play as a new way of learning in which they can feel the enjoyment of practicing the different language skills instead of learning them in a traditional way. Then he suggests that a child needs to practice "play" in order to be able to face future life, and helps in growing his brain and nerve system as well as other parts of his body in a perfect and healthy way.

Furthermore, Piaget considers play as a suitable environment that contributes in developing a child's language and its structures. He assumes that by games, a child can extend his experiences and develop his knowledge. Piaget regards "Problem Solving Games" which take the form of language problem as mental operations of different levels. He also considers "Word Forming Game" as one of the language problem solving games in which letters can be added, omitted or exchanged (Qattami, 1991).

Piaget (1962) suggests that cognitive development takes place as a result of the interaction between the child and the environment. Through this interaction, the child learns how to deal and adapt to his environment. In his attempt to explain play, Piaget believes that:

- play is an indication of the child's growth and maturity.
- Play is an essential pre-requisite for child's comprehensive growth.
- Play develops the different phases of the child's growth.

During the development process, three types of play can be distinguished, practice play or sensory- motor play, symbolic play and rule- constrained play. The crucial issue made in respect of play has to do with the process of assimilation and accommodation (AL- Remawy, 2003; Ads, 2005).

- Assimilation is a type of role play which means the child's activity to turn the perceived information into special structure that forms a part of his character.

- Accommodation is the activity performed by the child to achieve adaptation with the world around him. Piaget indicates that equilibrium between these two processes leads to harmony between experience and new learning (Altman, 1986).

Finally, Abdel Al (1991) cited in Harb (2006) states that Islamic education realizes the importance of play and clearly declares its credit in developing the child's comprehensive development. From the Islamic perspective, play is a purposeful activity for fulfilling the child's needs and developing his self- confidence. Furthermore, Islamic education recognizes the major role of play in the social adaptability. Through play, the child learns others' rights, co- operation and tendencies related to his own culture during performing various social roles. Islamic education sees play as a necessity and a right for the child's comprehensive and integral growth.

2.2.3 The characteristics of play

A play is considered a free or a guided activity, performed individually or chorally. It can exploit the body's motor and mental energy. It is distinguished by its speed, lightness, connection to the internal motivation, and it does not cause tiredness for its owner. Through play individuals the information, become part of his life and a source of enjoyment (AL- Ghareer & AL- Nawaysa, 2010).

Faraj (2005) mentions the following characteristics of play:

- Play is a free or not directed as popular games.
- Play includes enjoyment and entertainment for participants and viewers.
- It occurs individually or chorally.
- Excitement and enjoyment lead at the end to learning.
- Enables the students to exploit the body's motor and mental energy.
- It associates with internal motivation.
- Play is independent; it can be implemented in agreed time and place.
- It meets some of the children's basic needs for their natural development and growth.
- It is restricted to certain laws and rules.
- It is an assimilation process.

- Abdallah (2009) mentions other characteristics:
- play provides the students with a suitable environment which applies: I play – I enjoy – I learn ; and that will give them the chance to benefit as much as possible from the natural way of seeking knowledge.
- Engagement in play involves the mind in an active process as the child investigates, explores and inquires during play.
- In play, children try and gather information. That's why play to learn encourages children to seek more knowledge. It compensates them and fills them with Joy and pleasure; and that is the practice of active learning which is opposite to the passive way of learning which is ordinarily depressing to the child.
- Play can be considered the other face of active learning. Active learning, whether planned by adults or initiated by children, is the central element of the High Scope Preschool Curriculum (learning through play program). The High Scope Program, through active learning, teaches children to initiate, discover, and experience materials, ideas, events and people. The High Scope Program, also through active learning, is about children creating, experimenting, problem solving, and resolving conflict as they learn.

2.2.4 Types of play:

Forms of play are not prepared in advance, but it comes depending on the circumstances. So, children may be engaged in any form. Play can be classified into several classifications.

Sawalha (2004) classifies play into five categories:

- 1- competition play that depends on challenging the opponent whether the self or other.
- 2- Chance and luck play that depends on probability.
- 3- Assimilation play that includes imitation and pretense where the player assimilates certain characters or roles that differ from his real life.
- 4- Excitation play where the player seeks for getting rid of problems and troubles.
- 5- Entertainment play in which the learners seek for fun and enjoyment for away from his mental and cognitive abilities.

It should be mentioned that such type which provides children with a suitable environment will give them the chance to benefit as much as possible from the natural way and to benefit as much as possible from the natural way of seeking knowledge (Abdalla, 2009).

According to Piaget cited in AL- Remawy & AL-Shahrory (2008), play development is correspondent to thinking stages of the child or their mental development, every thinking stage has special types for play. In each stage, the type of play frames the basis of cognitive development: and it is considered a mean of learning and interaction with the environment.

According to Piaget, there are four classifications:

1- Sensory- motor Play

Mainly, learning and developing knowledge occurs in this stage through senses and motor activities. Play in this phase happens individually and randomly. The materials are the senses of the child. Sensory- motor phase is characterized by discovery and repetition. (Abd- Al- Lateef, et.al, 1995); (Al- ANany, 2004) and (Qatamy, 2000).

2- symbolic play

In this type, the child depends on delusive play in which he/she can show his/her physical and creative abilities and social awareness through various means. He/she can also express his/her use of certain symbols through play to things he/she already watches and interacts with it. (Al- ANany, 2004).

3- Rule- constrained play

This type of play occurs under certain rules. Its aims are clear and limited. It requires mental abilities for achieving the play task. (Qattamy, 2000).

4- Constructive play

This type of play is called "abstract thinking". It represents the child's ability to deal with problems and, treat and search for solutions in order to get results without returning to the concrete things or directed experiences. This kind of play stimulates creativity (Al- Anany, 2004).

2.2.5 Functions of play

One of the most important goals to be achieved by playing is that it is a chance for getting freedom from the constraints of reality and its pressure. In addition, play helps in child's growth, knowledge and freedom of action. It's a mean for developing child abilities,

intelligences and creative thinking (Al.Hela, 2002). Al- Ghareer & Al- Nawaysa (2010) indicate the functions of play in the following points:

- play is an effective mean of managing individual differences.
- play is a mean for the growth and development of the individual.
- play is a mean for learning.
- play is a mean for acquiring different kinds of behavior.
- play is a mean for developing different kinds of behavior.
- play helps for individualizing children learning.
- play provides opportunities for social interaction.
- play helps for adaptation and accommodation for children's surroundings.
- play helps children to construct new concepts and useful experiences through interaction in free activities.
- play helps in bringing interaction between the individuals and their environments' elements.
- play is an instrument for interaction and communication, thus an instrument for social development.
- play is an activity for getting fun and entertainment; it is a treatment for frustrating situations.
- play meets the children needs.

2.3 Educational Computer Games

Introduction

Computer games belong to the new multimedia culture that is based on the digital computer technology. It has emerged since the early eighties as a result of the technological development and multiple uses of computer (Fromme, 2003). Criffiths & Hunt (1995) indicate that Computer Games have become a major source of entertainment, and component of the social lives and leisure activities of young people since 1990.

Learning games are one form of computer- assisted instruction (CAI) that have the following additional attributes: motivation, reward (feed back), interactivity, score, and challenge and support (Vogel et.al, 2006). In addition, they enhance skills such as problem solving, memory, concentration, autonomy, physical co-ordination, self expression, turn taking, motor skills development, and of course collaboration with other pupils. (Bradshaw, 2004). Furthermore, games provide students with a learning situation that interests and immerses students. For instance, they weaken the constraints of the classroom and encourage the development of communication among learners and bring about better learning outcomes (Hyland, 1993). Moreover, through games, children experiment, discover and interact with environment. So, adding games to the English Language classroom will vary a lesson and motivate students by "providing a plausible incentive to use the target language", and therefore, making English less frightening and immediately useful to the child (Lewis and Bedson, 1999). Finally, Petty (2004) indicates that games are very 'constructive' and involve students in high- order thinking. They can be played with cards, or with text boxes on a computer screen.

Due to the fact that the essence of many games lies in outstripping someone else's performance or in bettering one's own, the goal is visible, outdoing others and improving oneself in an enjoyable atmosphere (Lee,1979). To conclude, Bacha, (2002) claims that games are a powerful instrument for teaching which promotes learning through stimulating the learners intrinsic motivation. However, teachers need to consider which games to use, how to link them up with the syllabus, textbook or program, and how, more specifically, different games will benefit students in different ways.

2.3.1 Definition of Educational Computer Games

It is a type of games displayed on a computer screen. It provides individuals with pleasure through the use of hands together with eyes (visual /motor synergy), or a challenge with the mental abilities and this could be through the development of electronic programs (Al-Remawy & Al-Shahrory, 2008).

Jones outlines that computer games are the real life for some people as they integrate with them more than reality. Computer games have been classified to: adventure games, competition games, simulations, cooperative games, programming games and puzzles' games. Kafai (1996) concludes that whatever the classification of computer games is, several games may be classified in different categories at the same time.

There are lots of elements that make computerized games distinct and different from other media, including interactivity, visual and sound effects provided by the game, deciding the aims and rules for the game and the realism. Integrating these elements with each other makes games more exciting, interesting and motivating.(Juul, 2005).

The element of interaction with the game is an active element, in addition to man's cognitive skills reflected on the game which he/she plays. In other words, success and failure in a game depends entirely on the skills and performance of the player(Moursund, 2006).

Hewitt, (1999) defines computer games as the following:

- 1- They are presented on a computer screen.
- 2- They must be fun.
- 3- They should be Competitive. A score be a warded.
- 4- A winner should be nominated and some sort of award along with feedback are given.
- 5- They must teach or reinforce a language skill.

Esa and Masal ha (2005: p. 483) add that "games are activities performed by students according to certain rules". While Hogle (1996: p.5) sees educational games "as a contest of mental skills and strengths that requires the participants to follow a specific set of rules in order to attain a goal". According to Martin (1995: 1), "it is any fun activity which gives learners the opportunity to practice the foreign language in a relaxed and enjoyable way.

Studying the previous definitions, one could deduce that educational computer games are activities with some characteristics:

- They are presented on a computer screen
- They evoke excitement and pleasure.
- They are goal oriented activities.
- They stimulate and motivate students towards more positive interaction.
- They have rules and limitations that should be followed.
- They should have some sort of award along with feedback are given.

2.3.2 Advantages of Using Educational Computer Games in English Language class

Many researchers and educators point out a lot of advantages of using educational computer games in English language class. Brewster et al. (2002) point out that educational computer games have lots of advantages as follows:

- They add variety to the range of learning situations.
- They change the pace of a lesson and help to keep pupils' motivation.
- They 'lighten' more formal teaching and can help renew pupils' energy.
- They provide 'hidden' practice of specific language patterns, vocabulary and pronunciation.
- They can help to improve attention span, concentration, memory, listening skills and reading skills.
- Pupils are encouraged to participate; shy learners can be motivated to interact.
- They increase pupil- pupil communication which provides fluency practice and reduces the domination of the class by the teacher.
- They help to create a fun atmosphere and reduce the distance between teacher and pupils.
- They can help reveal areas of weakness and the need for further language.
- They can help to motivate and improve writing skills by providing a real audience context and purpose.

Saricorban & Metun (2000) suggest that in planned games learners can practice vocabulary and structures extensively. Moreover, Lengling and Malarcher, (1997) say that students practice English in a vivid and meaningful context thus promoting their

communication competence. Linguistic games develop students fluency, accuracy and ability to improvise. They maximize students' meaningful use of English in a creative way (Langran & Purdell, 1994).

Educational computer games help students practice English for purpose in life- like situations, and in English language class, educational games motivate and loose the barriers to allow all students to practice English without being afraid Atake (2003). In addition, they are highly appreciated, thanks to their amusement. Ersoz, (2000). Uberman, (1998) highlight the use of games as they offer students a fun-filled and relaxing atmosphere, so they encourage, entertain, teach, and promote fluency. They are highly motivating and entertaining and add diversion to their regular classroom activities. Finally, Huyen and Nge (2003) believe that games help students to learn and retain new words more easily. They enhance students' competencies of English in a flexible and communicative way.

To sum up, educational computer games are an essential and vital instrument that help students acquire English unconsciously within a healthy competitive or co-operative atmosphere. Besides, they are an effective tool to lower the students stress and drive them in natural real communication in using English.

2.3.3 Educational Computer Games Significance

According to Rixon (1981) there are many reasons for using them in the language classroom:

- They break the classroom routines as they provide fun and relaxation while remaining very much within the frame of language learning.
- They focus student attention on specific structures, grammatical patterns and vocabulary items.
- They can function as reinforcement, review and enrichment.
- They can be adjusted to suit individual ages and language levels of the students in the class.
- They contribute to an atmosphere of healthy competition providing an outlet for the creative use of natural language in a non- stressful situation.
- They can be used in any language- teaching situation and with any skill area whether reading, writing, speaking or listening.

- They provide immediate feedback for the teacher and they insure maximum student participation for a minimum of teacher preparation.
- Games help and encourage many learners to sustain their interest and work.
- Games also help the teacher to create contexts in which the language is useful and meaningful.

The researcher agrees with Rixon that games create an atmosphere of healthy competition where students can play, enjoy themselves and learn in the same time. This was obvious between the students in the class during the researcher's experiment in teaching the skills of reading for the experimental female and male groups, they were very enthusiastic to play the game and win.

There is a list of Language learning purposes of educational computer games cited by Brewster et.al (2002). They are as follows:

- 1- They encourage the memorization of chunks of language which can be slotted into various texts e.g. Can I have a ...?
- 2- Chunking of language provides useful pronunciation practice.
- 3- The language needed for games may be used as part of an activity where the focus is on getting something done, rather than practicing language for its own sake.
- 4- Language or conceptual goal, e.g. using reading games to reinforce vocabulary as well as the concept of classifying, and learning more about a topic.
- 5- The pupils may be involved in informal language analysis and noticing of language items or rules through problem – solving and puzzles.
- 6- Computer games help to make learning more memorable and accessible by using as many approaches as possible, such as mime and movement, use of color and patterns, or personalization.

Shaptoshvili (2002) asserts that games should be an essential part of the teacher's though they are recreational activities whose main purpose is enjoyment, they have an evidence in the teaching learning process. Whatever we hope the children are going to learn, the experience is richer and more memorable when we engage the emotions, when we include an element of fun, when we laugh.

Al Hela (2002), Essa and Mashalla (2005), Al Khawalda (2003) and Hearn (2004) summarize the achieved goals of using Educational computer games as follows:

- Educational computer games are a learning tool

Computer games help the child to discover and explore his surrounding world. Through games, the child acquires a lot of information, facts and concepts about people and things (Al hela, 2002).

- Educational computer games are a tool for developing the cognitive competence

The game anticipates developing the child's cognitive competence. As a result of understanding its rules, the child has to his skills of analysis, innovation and synthesis to play the game successfully (Essa and Mashalla, 2005).

- Educational computer games enhance the social and affective aspects of the child's character

Playing with others claims co-operation among all the practitioners. Games accustom the child to communicate with others within group work. Furthermore, they build the child's emotional and affective balance. When the child sacrifices his ego for others, he acquires some attitudes that facilitate adaption to his environment.

- Educational computer games are a tool of compensation

Educational games help the child to get rid of stress and repression. In some assimilation games, the child tries to regain balance through assimilating the roles of the elders.

- Educational computer games are a tool of expression

Games constitute a great means of communication that surpasses language. Children can express their emotions, ideas, interests, tendencies and aptitudes through games (Al Khawalda, 2003).

To sum up Educational computer games is not only a tool of enjoyment and fun but it is a learning tool which helps the student to acquire a lot of information, facts and concepts about people and things around him| her.

2.3.4 The pedagogical Benefits of Educational Computer Games

Games constitute a wonderful tool for engaging learners and reinforcing their learning if they are used appropriately. This is a fact that no educator can dispute or argue (Constantinides, 2003). The benefits of games as a teaching tool is noticeable as many researchers have proposed many of these benefits touch almost all the aspects of the child's character (Hogle, 1996).

1- Affective benefits

- Educational computer games are a demand for lowering the students affective filter and eliminating any psychological barriers towards the effective learning (Hussin, 2000).
- Educational computer games provide the students with special atmosphere full of attraction, competition, luck and excitement which reflects on their motivation. They promote the students intrinsic motivation which keeps them attentive during the lesson (Duckes, 1997).
- Educational computer games not only provide the learners with the opportunity to express their needs, desire and tendencies but simulate their readiness and aptitudes towards learning(Open University, 1997).
- Educational computer games prevent boredom and develop a sense of achievement which results in self-confidence and independence (Al-Masry, 2004) and (Open University, 1995).

The researcher concentrated on these steps in teaching the experimental group:

- Break the classroom routine as they provide fun and relaxation.
- Focus students' attention on specific structures, grammatical patterns and vocabulary items.
- Involve equal participation from both slow and fast learners.
- Contribute to an atmosphere of healthy competition, enjoyment and fun.

2- Mental Benefits

- Educational computer games, being free and fun activities, stimulate the students' energy towards a meaningful learning as many games can be geared towards self – learning. According to Boqhoos & Ubaid (2005) Educational computer games develop students' skills of observation, analysis, classification, deduction and synthesis.
- On the other hand Hogel, (1996)indicates that Educational computer games create a state of doubt and disequilibrium which is essential for recognition. This state drives the students to search, discover, analyze and evaluate to regain the state of equilibrium.
- Moreover, Sabarinee and Ghazawi, (1987) state that Educational computer games enhance students' reasoning skills and high order thinking. The student in the game is creative thinker and decision maker. Abu Jabber, et. al (2003) see that through games

students become better problem solvers as they continue developing strategies and techniques to achieve their goals.

3- Pedagogical Benefits

- According to Abu Jabber, (2003) Educational computer games change the traditional role of both the teacher to be a guide, a supporter and a facilitator and the learner to be a researcher and an active participant.
- Educational computer games individualize and organize learning to meet individual differences. Different games meet different learning styles; auditory, visual and kinetic. (Makarova, 1997).
- Dukes (1997) states that Educational computer games promote intrapersonal reward structures for learning. Besides, games produce effective classroom interaction. Computer games enhance students competence of communication as they enhance their language.

4- Social Benefits

Educational computer games do the following:

- Reinforce cooperation habits and the spirit of team among students, in the same time they promote healthy competition.
- Develop students morals like, tolerance, co- operation, respect and acceptance of the other.
- Build whole class participation.
- Help students to assimilate some future roles.
- Provide students with life style experience, accordingly they bridge the gap between the class and their real life (Abu Jaber, 2003), (Almasry, 2004)and (Open University 1995).

Finally, we can say that computer games have great benefits which are mentioned above (affective – mental – pedagogical and social).

2.3.5 The characteristics of Educational computer games

Computer games add an element of fun to CAT. In most cases, games are simply modified versions of other types of CAI, such as drill and practice or simulation, but are distinguished by having the following characteristics which are mentioned by (Newby, 2006).

- Motivation: The chief advantage of computer games is the variety of motivational elements they may employ, including competition, cooperation, challenge, fantasy, recognition, and reward.
- Game structure: The game structure means that there are rules of play and an end goal.
- Sensory appeal: games on the computer often appeal through the use of graphics, animation, sound, and other sensory enhancements.

The child's ability to play games with others is an impressive and multifaceted accomplishment. Faraj (2005) mentions some of the characteristics of educational computer games. They include the following:

- They include enjoyment and entertainment for participants and viewers.
- Enable the students to exploit the body's motor and mental energy.
- They associate with the internal motivation.
- They meet some of the childrens' basic needs for their natural development and growth.
- They restrict to certain lows and rules.

Abdallah (2009) adds another characteristic of using educational computer games, which is engagement in playing computer games involves the mind in an active process as the child investigates, explores and inquires during play.

2.3.6 Criteria for choosing a game

Rixon (1981) claims that there are some basic points to consider while choosing a game.

- The size of the class.
- The students' age (adults or children).
- The class level; elementary, intermediate, and advanced.
- The structures being studied at the moment.
- The physical space you have to work with.
- The noise factors, will you disturb the classes around you?
- The student's interest in and out the class.
- The equipment and materials available.
- Cultural considerations.
- The time available for games.

Uberman (1998) states that in deciding which games to use in a particular class, teachers should take many factors into account. They should be very careful about choosing games if they want to make them profitable for the learning. While Sabrina & Ghazawi (1987); Deesri (2002) suggest that language games should be accomplished within an atmosphere full of relaxation, amusement and entire interaction among the learners. This requires a special selection of the game. Also, Hogel (1996) cites that good games are fun, intrinsically motivating and offer the right amount of challenges. Furthermore, games should be cognitive tools that reduce the need for a laborious activity and drive students to achieve the target goals. They should provide intensive practice of the language. In addition, Huyen & Nga (2003) point out that space, students level, age and culture, context timing and classroom setting are basic factors to be considered. Moreover, Al- Rafie (2000) asserts that authenticity, adequacy to the learning objectives, expense, simplicity, classroom setting and students age are important factors. The game should also fit the lesson, the content and student characteristics along with providing students with both fun and educational meaning.

Uberman (1998), Deesri (2002) and Lengling and Malarcher (1997) state that appropriateness is an essential factor to consider. Appropriateness means that the game is appropriate to the content and setting. Sabine and Ghazawi (1987) & McLaughlin (2004) suggest another factors that influence achieving a game, these factors are :the length and the time is necessary for completing the game. Finally, Carrier (1985) suggests many factors which must be taken into account when deciding which game would be most appropriate and most successful with students at any one time. Primarily, the teacher will consider the level of the students but also:

- 1- What is the main aim of having a game? Is it for specific language or skill practice, for general practice, for relaxation or to punctuate a long lesson?
- 2- What will interest the students? Are they young or old?, serious – minded or light – hearted, highly motivated to learn English or not?
- 3- When is the game to be used? Student motivation and interest in a game may be very different. In other words, students' response to a game after a test or grammar practice session will be different from that after a discussion lesson.

2.3.7 When to Use Language Games?

Games provide quite extensive language practice opportunities for both general and specific language skills and so they should be seen as an integral part of a teaching program and their use should be planned and monitored (Atake, 2003). They can be used to open or close a lesson in a stimulating way, to punctuate a lesson, to relieve tension after a test or concentrated practice session, or at any time that the teacher feels appropriate. It is important they are used positively to give students enjoyment and useful practice (Carrier, 1985).

On the other hand, Rixon (1981) cited in Uberman (1998) points out that games can be used at different stages of the lesson. The teachers may use games at:

- 1- Presentation: to provide a good of the new language making its meaning clear.
- 2- Controlled practice: to elicit good initiation of the new language.
- 3- Communicative practice: to give students a chance to use language in authentic situations.
- 4- Revision: to help students recall material in a pleasant and an entertaining way.

2.3.8 What's the Teacher Role in Using Educational computer Games

Carrier (1985) asserts that the teacher should ensure that the aids and materials are available, students are able to cope with the requirements of the game, such as working in groups, and the linguistics demands the game makes are within the students' capabilities. Before a game is used with a class the teacher must be sure that the necessary facilities (for example computers, electricity..) are available. Also, the teacher must make sure the contents are complete (Ur & Wright, 1995). They add that the teacher must then work out how the game is to progress, what students will need to do, and how they will be instructed in what to do. That is in order to deal with all of them effectively. In addition, Toth (1995) indicates the role of the teacher in managing the classroom. She says that the teacher must decide in advance how to organize the students and the classroom so that the setting up of a game can be carried out as quickly and smoothly as possible. Also, she mentions the teachers' role in timing. The teacher has to try to predict how long a game may last? What is the minimum or the maximum amount of time needed to play a game?

Brewster, et. al (2002) indicate that while the pupils are playing games, the teacher has a key role in observing and listening, monitoring pupils' language, giving prompts and explanation where necessary, noting pupils' language difficulties, which may need re-

teaching, and so on. The teacher should try not to over- correct the children if this is likely to spoil the flow of the game or reduce their enthusiasm. According to Abu Jabber, (2003); Hamdan (2009) games change the traditional role of both the teacher to be a guide, a supporter and a facilitator and the learner to be a researcher and active participant.

Bradshaw (1995) summarizes the role of the teacher as the following:

- The teacher prepares in advance all the materials and items that will be needed.
- Gives clear instructions to the pupils about the steps, procedures, rules grouping and so on.
- Circulates, monitors, guides and helps the pupils throughout the game or activity.
- Gives encouragement and praise and has a positive approach to error.
- Provide clear feedback at the end of the game or activity when this is appropriate.
- Varies the games and activities from lesson to lesson.

- **2.4 The Impact of Educational Computer games on Cognitive Processes**

Introduction

If we tell somebody to write down the mental history in the childhood in terms of: ideas, applications and activities that occupy the children's minds, then the electronic games will occupy the end of the twentieth century (Al-Remawy & Al-Shahrory,2008).

Educational computer games are considered a vital activity conducted by the child who has a major role in forming his character with different scoops through stimulating his thinking and enforcing his imagination. Besides, games are a fundamental part of childhood and are excellent source of child's incidental learning. Through games, children experiment, discover and interact with their environment (Lewis & Bedson, 2002). Bradshaw (2004) mentions that educational computer games enhance problem solving, memory, concentration, autonomy, physical co- ordination, self expression, turn taking, motor skills development, and of course collaboration with other pupils. Moreover, kablan (2010) and Alessi & Trollip (2001) claim that educational computer game applications which are well organized according to the aim, increase the learning process, strengthen retention, supply effective learning with joy in place of boring lessons by increasing motivation.

2.4.1 Definition of cognitive processes

It is the high-level jobs which is performed by the human brain and includes: understanding, speech, visual perception, interpretation, mathematical ability, attention, information processing and memory as well as the jobs of implementation such as: planning, problem solving and self-monitoring (Al-Remawy & Al-Shahrory,2008).

In the same concern, cognitive processes are defined as those processes involved in the mental processing of information and these processes include: awareness, perception, thinking, judgment and what will become known through processes such as: perception, thinking, clairvoyance and information (Abd Al- Azeez, 2008). Cognitive Processes are defined psychologically by Schuler in his article entitled "Cognitive-Affective Bases of Behaviour" as information processing which includes: attention, perception, remembering, judging , imagining, and speech.

After reviewing those several definitions, the researcher concludes that cognitive processes are everything that the human being has. In fact, every psychological phenomenon is originally a cognitive phenomenon. Whereas cognitive processes in psychology means mental processing which known as Cognitive Processes. This description points to practical processes as: memory, attention, perception, problem solving and mental visualization. The researcher is going to handle the effect of computerized games on those cognitive processes.

2.4.2 The impact of Educational Computer Games on the cognitive processes

Karni and Sagi (1991) suggest that using educational computer games improves visual and sensory synergies and fasten Time Reaction, as well as they develop Peripheral Vision.

In a study conducted on the effect of computerized games by Griffith, et al (1998) examining the difference between computerized games' users and non-users of these games to examine visual motor exam (eye & hand). They used a turning-round machine and then asked people to follow the moving stimulant light at different speeds and styles (circle, square, triangle). Results showed that the users of computerized games were more successful than those non-users of this task especially at high speeds, and this clearly indicates that users of computer games have a visual - motor synergy higher than non-users.

Practically, the researcher believes that this improvement is very useful in everyday life. As it is important when driving a car whereas the improvement in reaction time gives the opportunity to avoid hitting an obstacle in a road. In addition, it is essential in business that requires handy skills.

In addition, Green and Bavallier, (2003) outline that visual Attention differs from attention concept. There is a lot of available visual information which cannot be processed. Consequently, attention is the mechanism by which some of the items can be selected for additional processes. Green and Bavallier clarify that when a man is reading a chapter in a book for example, he sees other things within his visual sight such as the office, a cup of coffee or a chair, and despite the presence of these things all the time, but it is probably not already noticed during the reading process. In this case, the chapter can be considered as the focus of visual attention and all other items are ignored. Thus, it can be said that what humans care about is not necessarily what they see but what they pay attention to.

In a study of Green field et al. (1994) which aimed at examining the difference between users of computerized games and non-users to examine their attention, Children were asked to click the button when they see shining stimulus, and this stimulus appears in two places A and B. In addition, students were told that 80% of the experiments show place A and only 10% show B. Accordingly, children responded rapidly to the high probability and very few responded to the low probability. The results revealed that computer games increase the effectiveness of the attention distribution with much training (number of places that they can pay attention to)

Practically, the researcher believes that we can see the games' effects while driving. As well as, these games help increase the ease of dealing with other electronic means. unsurprisingly, we find a three-year-child deals with simple computerized games and has some of the terminology learned through the game such as "Paint" or " Click ", moreover, how to deal with the mouse and keyboard.

Green and Bavallier (2003) outline that through computerized games, we learn iconic representation, visual attention, locative cognition and recognizing directions. Lepper and Malone (1987) conclude that computerized games increase the students' ability to solve problems and logic skills, they also improve the level of motor-visual synergy. In addition, they increase the child's interest of information technology. They improve the relationship between the child and others who play with him whereas they share ideas and information. These games also facilitate the learning process and self learning, and they increase the individual's creativity and innovation.

2.4.3 The impact of Educational Computer Games on the brain's development

A group of British researchers studied the results of chemical nerve for playing computer games. They measured the amount of dopamine produced when children play computer games.

Dopamine: is one of the chemicals in the brain called neurotransmitters that allow transmission of information to different areas of the brain.

These researchers prove that the percentage of dopamine increases while playing computer games, especially in the areas which control the learning and reward. They also noted that

computer games players have much dopamine while playing which leads to rapid learning (Green and Bavallier, 2003)

Sylwster (2005) also confirms that the genes have an essential role in brain improvement and development of functions. Thus, individuals' strong natural curiosity and qualifications of problem-solving helps in the development of tools such as cars, books, computers, medicines which compensate the deficiencies in bodies and brains. Moreover, the mobile programmed electronic means have a strong power in the transfer of cultures. Therefore, technology is the fourth technological brain which is located outside the skull, but it interacts strongly with the three compounds of biological brain inside the skull and spine.

2.4.4 The impact of Educational Computer Games in learning and teaching

The Virtual learning Environment, which is the central idea in modern societies including computer and internet shows a lot of benefits, including: Adaptability, distribution, flexibility (Gros,2003). Gros believes that there is a rich field with which helps in education and motivation, it is the world of games which is considered as the source of most interaction in the contemporary culture.

Frenandez and Hermana (2001) state that the children who had an access in the digital culture world through digital games acquire digital culture through informal playing. Thus, it is neither schools nor educational institutions care about this important field. Frenandez and Hermana confirm that children today live in a situation which forces them to acquire knowledge in order to deal with the new society. Therefore, schools should provide all the facilities which provide learners with the necessary knowledge to deal with this field.

2.4.5 What are Educational Computer Games effects?

Richy, et. al (2001) and Tapscott (1998), clarify that the computer technology does not only affect the one who uses it, but it affects all the social activities and some of these effects can be clearly noticed as follows:

1- speed

Digital generation has much experience in information processing speed, which shows high speed in processing.

2- parallel processing versus liner processing

Many parents find it astonishing when their children have the ability do their homework while watching TV or listening something at the same time. This shows a variety in concentration. Researchers and writers attribute this result to the adjustment process with computers which enables the learner to perform many tasks at the same time

3- The text illustrates the image

Images and graphics were used in the past to illustrate a text. But in the contemporary technology multimedia, the text is considered as a complement of the subject.

The challenge which faces the flexibility is the design of some ways to use the form and image to reinforce understanding saving the information richness.

Thus, the researcher designed computerized games in order to give a big advantage for learning which depends on the digital game.

4- The end of linear access to information

Digital generation is the first to use the non-linear means of learning. This means that, humans can use different multimedia, educational games and internet at the same time.

5- Connectivity

Connectivity provides a gateway to information and social relations in different ways. For this reason, this generation tends to compare the problems from different sides. Searching information and communication is applied through communication and information technology

6- Active versus Passive

There is a big difference between reading on one hand and interaction with the computer on the other hand, reading needs to focus, quietness and work privately, but the use of computer offers a more effective and active experiences as chatting and sending information. Birinskla believes that most educational games as computerized games differ from lecturing, traditional meetings as they are more active.

7- Orientation Towards Problem-solving

Through playing computerized games and trying trial and error, this effects the players of these games in terms of their ability to think and suggest strategies to solve problems.

8- Immediate Reward

Students usually ask about the benefits of implementing a task. The teacher cares about the desired long-term benefit, the student is interested in rewarding directly.

9- The importance of Fantasy

Tapscott (1998) states that after studying several successful computer games, movies and novels read by teenagers today so the imagination is very essential for today's teens. It is probable that technology encouraged this phenomenon.

10- A positive view of Technology

Digital generation grows using communication technology which is very familiar, also this generation has positive attitudes unlike the adults. The differences between children and adults can be observed through the types of technology used by each of them (Prensky, 2001, Tapscot,1998)

2.4.6 What functions reinforced by Educational Computer games?

Calvo (1997) believes that games can enhance the following functions for users:

1- Motor Development

It often includes motor games and stimulate accuracy and coordination between movements and speed.

2- Intellectual Developments

It includes games that require understanding of what to make things, solve problems, put strategies, etc

3 -Affective Development

The imaginative nature of games and the opportunity to play means that it has a major function in the emotional growth of individuals. Games stimulate students to understand their experiences and maturity.

4- Social Development

This kind of games is a way of communication with others and enabling the players to transfer the prevailing social values and attitudes.

Computerized games help in growing the previous mentioned four dimensions. McFarlane & Heald (2002) praise the acquired knowledge through the use of computer games depending on surveying teachers' views who showed positive view towards applying games confirming

that games help in improving different types of strategies such as: problem solving, sequential learning, reasoning, memorizing and collaborative work

The study also outlined learning fields that computerized games have effect on:

- Personal and social development
- Language and knowledge
- creative development
- Knowledge and understanding the world
- Physical development

2.4.7 How do Educational Computer Games affect education?

Playing computer games can help develop general skills such as :

1- Thinking

Abd Al Azeez (2008) mentions that education by computerized games gets thinking for many reasons. First, the scope of its contents from speed of change which makes memorization impossible physically. Second, a result of mixing facts and fantasy, the users need to develop thinking skills in order to assess the relevance and accuracy of what they find. The world of computerized games allow thinking even if it aims at entertainment. This world also helps in acquiring simple thinking abilities as: observation, classification, arrangement and comparison. These games also help in the acquisition of higher-order thinking abilities such as, criticism, analysis, synthesis and problem solving.

Wegerif. & Dawes (2004) indicates that playing computer games can help develop general thinking skills. For example, an entertainment game, may have the potential to develop skills such as the following:

- Understanding and representing the problem (including identifying what kinds of information are relevant to its solution);
- Constructing and managing a plan of action, or a strategy;
- Reasoning, hypothesis- testing and decision-making;
- Using various problem-solving tools.

2 - learning by doing

The interactivity feature which is provided by computerized games survives learning by doing as the active involvement of the learner increases the possibility for using what is learned. The rich interactivity of the tools of e-learning games including computerized games

lead to developing the society through the application of ideas. So the computerized games help in surviving the learning strategy (Abd Al Azeez, 2008).

Piaget concludes that learning by doing is defined as "organizing the reality on the level of action, not just copying it". Individuals should carry out two main process: assimilation and accommodation in order to reach the state of adaptation at the end(Al-Remawy,2003).

2.4.8 How will education be through computerized games at its maximum?

McNergney & Kent (1999), Abdal Al Azeez (2008) state that e-learning will change the learning strategy as follows:

1_ learner-centered education

A digital learning media represent the centered medium around the user. A document identifies the pages that will be visited and the type of games they want. In the new model and replacing the educator with learning coach who works with learners to help them formulate a plan to acquire the skills they need. Perhaps, educator will be changed to online coach. Experiments proved that the learner-centered education is more effective for internet generations than the traditional education.

2 - learning is dependent and time is independent

The increase of e-learning environments based on the learner eliminates the remaining traditional institutions which state that time is dependent and learning is independent. learning via electronic means will be supported and given much time to achieve the highest performance. Some learners will quickly gain too much information.

3 - Replacing the information to innovation as a dominant model

The international information network (Internet) plays an important role in increasing the availability of information. It contributed to make the information a cheap commodity which is available for everyone. As a result, the learning will no longer be based on the information, but will depend an innovation: Learning ways to access information when it is needed, and then applying this information in a contextual and innovative ways.

From what preceded, It could be said that if success in the twentieth century depended on what you know, in this century and in the coming centuries it would be in what you innovate or create.

Chapter II
Literature Review
Part 2: The Previous Studies

Chapter II

Part 2: Previous Studies

Introduction

This part of chapter two is divided into three domains. The first tackles studies that examined the effect of using educational computer games on developing English language learning, since these studies examined the impact on students' development in different factors such as: motivation, learning, academic performance, behaviors, health, reasoning abilities and communication. The second tackles studies that examined the effect of using educational computer games in developing student's achievement. The final part tackles studies that investigated the effect of using educational computer games in learning and developing English language skills such as reading, writing, listening, speaking, vocabulary and grammar.

2.5 Related studies concerning using educational computer games in developing English language learning:

There is an increased urgency to understand the impact of using computer games on achievement. Numerous recent studies have examined this link and found mixed effect. This section presents an overview of related studies that look at the effect of computer games and related variables on pupil's achievement.

Durkin and Barber (2002) in their study tried to examine the effect of the computer game play on adolescent development.

Surveys were administered at the schools. Students were allotted 90 min to respond to questionnaires with researchers present to answer questions.

Regarding the sample, the data used in this study come from wave 5 of the Michigan study of Adolescent life Transitions (MSALT). Participants were recruited from 10 predominantly white middle – lower- middle- class school districts in southeastern Michigan through letters sent home in their sixth grade in 1983.

Wave 5 data were collected from 1304 participants in 1988 when the respondents were in 10th grade and approximately 16 years old.

The results showed that no evidence was obtained of negative outcomes among game players on several measures- including family closeness, activity involvement, positive school

engagement, positive mental health, substance use, self- concept, – game players scored more favorably than did peers who never played computer games.

Amory and Seagram (2003) in their study used the relationship between educational theories, game design and game development to develop models for the creation of complex learning environments. These models were developed to better understand the relationships between story, play and learning. Both qualitative data collected from group workshops and qualitative data obtained from interviews with people closely associated with the game design process were used to evaluate Game Achievement Model. Results indicate that Game Achievement Model is an efficient, well conceptualized and supportive model that can easily contribute to successful development and writing of stories for complex learning environments.

Another study by wallenius et. al (2009) was conducted to describe Finnish adolescent different motives for digital game playing, and to examine relations between digital game playing and parent- child communication, school performance, sleeping habits, and perceived health. The data were collected as part of a nationwide monitoring system of adolescent health and health- related behaviors, the Adolescent Health and lifestyle survey (AHLS) in winter 2003. Questionnaires were mailed to nationally representative samples of 12, 14, 16, and 18 – years – old. The total number of participants responding to the AHLS was 6716 (3728 girls, 3033 boys). The response rate was 69%. From the adolescent responds, two main motives emerged for participants with longer playing time: instrumental (learn new things, use and develop game playing skills, experience different roles) and ritualized (pastime, entertainment, recover, relax, escape everyday life, forget worries). The results showed that the instrumental motives were more important to boys and younger respondents. They were associated with earlier bedtime, better mother communication, and better school grades. And for the importance of ritualized motives, they increased with age and were related to better school performance and perceived health in both sexes.

So, among boys, gaming is part of the male socio – cultural communication context.

Whitlock (2004) examined a variety of computer and video games from five perspectives: 1) space 2) plot structures, 3) character, 4) theme, and 5) interactivity, with a view to articulating the modes of kinship between games and live performance. In

recognizing and articulating such relationships, both gaming and theatre benefit, strengthening the aesthetic and structural creation of performance through technological means.

Games allow viewers to become active participants in dramatic narrative, transforming audience into performer. The game player is joining in a mediatized theatrical experience that reshapes notions of performance, theatre, and audience.

So, computer games have positive effect on the participants' performance.

A descriptive study accomplished by Bottino et. al (2006) who mentioned some strategic and reasoning abilities in primary school pupils . Such strategies engage them in educational itineraries based on the use of a number of computer mind games. The paper briefly describes the project's aims and organization, the kind of games used and the working methodology adopted. It then focuses on some of the cognitive abilities activated by the games. Finally, some pedagogical considerations derived from the study are provided which may support teachers and researchers who are interested in this topic and need some practical advice and recommendations on introducing games in classroom activities.

Another descriptive study was accomplished by chalup et. al (2005) for enhancing students' progress in acquiring understanding and practical experience. The researchers introduced and developed the Machine Intelligence Hex (MIHex) project. The associated undergraduate student assignment was about designing and implementing Hex players and evaluating them in an automated tournament of all programs developed by the class. This article surveys educational aspects of the MIHex project. Additionally, fundamental techniques for game programming as well as specific concepts for Hex board evaluation are reviewed. The MIHex game server and possibilities of tournament organisation were described. The researchers summarized and discussed their experiences from running the MIHex project assignment over four consecutive years. The impact on student motivation and learning benefits were evaluated using questionnaires and interviews.

2.6 Related studies concerning using educational computer games in developing student's achievement:

Kangas (2010) showed that one way to foster activity, creativity, imagination, and group work skills-along with academic achievement-is to integrate fact and fiction and a playful learning environment in teaching, studying and learning.

This paper reported on a pilot study in which children aged 7-12 had an opportunity to study in a novel formal and informal learning setting. The learning activities were extended from the classroom to the playful learning environment (PLE), an innovative playground enriched by technological tools. Curriculum-based learning was intertwined with game co-creation, play, and computer games in the PLE. The results indicated that the children considered learning in groups, through co-creation and turning fact into fiction, to be a rewarding way to learn, practice group work and use their imagination for a common goal. Teachers felt their role was important and challenging, especially in terms of the amount of tutoring and lesson planning.

Suh et. al (2010) investigated the effectiveness of massive multiplayer online role-playing game (MMORPG)-based (massive multiplayer online role-playing game) instruction in elementary English education. The effectiveness of the MMORPG program was compared with face-to-face instruction and the independent variables (gender, prior knowledge, motivation for learning, self-directed learning skills, computer skills, game skills, computer capacity, network speed, and computer accessibility) were examined to see how accurately achievement was predicted in MMORPG instruction. The results indicated that students studying English utilizing online role-playing games showed higher scores in areas of listening, reading, and writing than those who attended face-to-face instruction classes. It was also found that prior knowledge, motivation for learning, and network speed were factors affecting achievement in English learning. These findings suggest that MMORPGs can play an important role in improving English communicative skills

Paraskeva et. al (2010) displayed a proposal for the development of educational multiplayer online games based on the activity theory, as an alternative to the current trend in multiplayer gaming and a means of promoting collaboration among students. In order to examine whether online games are engaging for learners, they considered multiple factors regarding game play--such as frequency of game use, gender differences, identification with the characters, and game preferences--as well as some psychosocial factors that may influence

learning--such as academic performance, self-esteem, and computer self-efficacy. This paper suggests that online multiplayer educational games should be approached as a complex learning system, based on the principles of activity theory, where the Subjects would interact with other Subjects, Objects and Tools of the game, under specified rules and create Communities through division of labor, leading to the expected learning outcome. Thus, the researchers suggested taking into account some important issues concerning the subjects that the activity theory refers to, such as gender differences in playing games, academic performance, self-esteem and computer self-efficacy.

An Evaluative study was accomplished in the Britain by Falloon (2010) in which he explored and discussed arguments for the use of virtual environments and interactive avatars in supporting the achievement of student learning goals within conventional educational contexts. It described and evaluated arguments promoted by some authors relating to advantages from gaming and avatar use, ranging from enhanced engagement in learning activities, through to more purposeful and focused communication, and, when used in group situations, better cooperation and collaboration between students. It explored the potential of avatar environments to act as powerful communication mediums for students to display knowledge and understanding, and engage in the development of "higher order thinking skills, such as interpreting, analyzing, evaluating, synthesizing and solving complex problems". It also introduced and discussed the avatar-based authoring program MARVIN, and identified potential for its use as a digital storytelling tool to assist students in communicating outcomes from units of learning, and in supporting the development of a range of key learning competencies identified in the New Zealand Curriculum Framework. It profiled a successful example of the classroom-based use of MARVIN within a community project undertaken by groups of year 7 and 8 students at two Hamilton intermediate schools, and identified how the program supported student "thinking" and "relating to others" key competencies

Chuang et. al (2009) in their experimental study investigated whether computer-based video games facilitate children's cognitive learning. In comparison to traditional computer-assisted instruction (CAI), this study explored the impact of the varied types of instructional delivery strategies on children's learning achievement. One hundred and eight third-graders from a middle/high socio-economic standard school district in Taiwan participated in the study. Results indicated that computer-based video game playing not only improves

participants' fact/recall processes along with their academic achievement, but also promotes problem-solving skills by recognizing multiple solutions for problems.

Kim et. al (2009) tried to explore the effects of meta-cognitive strategies on the academic and gaming achievements. Exploring the effects of those achievements on the social problem solving of students is also of interest in this study. For this purpose, the MMORPG [Massively Multiple Online Role Playing Game] was used. The participants, consisting of ninth graders, played the game until they all reached the third level to ensure that they have the same gaming ability prior to gaming for the study. Three meta-cognitive strategies were developed: self-recording, modeling and thinking aloud. Those strategies are specially related to gaming activities and applied in pre-gaming activities, gaming activities, and post-gaming activities. The social problem solving ability, which is the mediating variable, affects the academic achievement and the game performance very strongly. These results imply that a commercial game playing in conjunction with meta-cognitive strategies can be an effective way to increase students' performance both in learning and gaming by keeping them involved.

Judge (2005) examined the relationship between academic achievement of young African American children and access to and use of computers in their school and home. The sample consists of 1,601 African American public school children who attended kindergarten and 1st grade. Results indicate that access to and use of a home computer, computer area in classrooms, child/computer ratio, software, and computers in school were positively correlated with academic achievement

Cameron and Dwyer (2005) sought to find out the effect of (a) gaming, (b) gaming plus embedded questions, and (c) gaming plus questions plus feedback. Four hundred twenty-two students received the Group Embedded Figures Test, were separated into field dependent and field independent learners, and were randomly assigned to four instructional treatments. Two weeks after receiving their respective instructional presentation they received four criterion tests measuring different educational objectives. ANOVA and follow-up tests indicated that gaming is an important instructional strategy for facilitating delayed achievement of specific types of educational objectives.

Donmus (2010) utilized a descriptive study in Turkey. The researcher pointed out the benefits and characteristics of using educational computer- game based foreign language learning. Also, the researcher displayed the value of educational computer games which has

been increasing in language education since they help to make language education entertaining.

2.7 Related studies concerning using educational computer games in developing English language learning skills:

Liu and chu (2010) aimed to investigate how ubiquitous games influence English learning achievement of listening and speaking along with motivation through a context-aware ubiquitous learning environment. This context is called the Handheld English language learning organization (HELLO) which helps students to engage in learning activities, educational strategies& collaborative learning.

The study sample was two groups of students including high school teachers and junior. During the experiment, tests, a survey, and interviews were conducted for the students.

The evaluation results of the learning outcomes and learning motivation demonstrated that incorporating such games into the English learning process could achieve better learning outcomes and motivation than using non-gaming method.

Turgut and Irgin (2009) aimed to examine the effect of computer games on young learners' English language learning especially on experiences of English language, vocabulary and pronunciation.

The researchers conducted their study in internet cafes in Mersin. 10 primary and secondary school students studying at different schools in Mersin, Turkey, participated in the study. The participants were at the age of 10-14. The data was collected through observations and semi-structured interviews and analyzed through phenomenological data analysis steps. The results enhanced positively integrating computer games to ELT curriculum.

Owston et. al (2009) in their study examined computer game development as a pedagogical activity to motivate and engage students in curriculum-related literacy activities. They hypothesized that students would improve their traditional reading and writing skills as well as develop new digital literacy skills. The study was conducted in the grade 4 class rooms of nine public elementary schools in south- central Ontario, Canada. Thus, eighteen classes of grade 4 students were assigned to either an experimental or control group. Both groups studied the same curriculum unit over a 10 week period. The researchers along with great help from teachers administered to all students pre- and post tests which is called (GRADE) – Group Reading Assessment and Diagnostic- to measure their achievements in reading skill. In

addition, pre- and post test were done to measure their achievement in writing skill. It was called (SWT)- Student writing Test. An analysis of pre – and post unit scores on two standardized literacy test revealed that the experimental students performed significantly better. The results also showed that field notes and teacher interview data indicated that game development helped improve students content retention, ability to compare and contrast information presented and to develop an insight into questioning skills.

Doran (2010) in his study tried to engage and motivate the American students in the content and reading of the class while offering them interest in the material. So, the researcher aroused the question, " How can we motivate students to read?" The idea driving this study was based on a desire to create interest in reading by using video games to motivate students to read. In this article, the researcher reviewed current literature based around using video games as a pedagogical tool. Topics looked at include the decline of interest in reading, the rise in student comfort with technology, the ability for video games to increase intrinsic motivation, how the larger fields of reading, motivation, and video games form the reasoning for this research, and benefits from previous research. Primary research was also discussed; 20 students from Ohio Dominican University participated in a study where they played the video game to see whether they would be motivated to read the book. Due to lack of subject feedback, quantitative results were limited, but qualitative results were found. None of the subjects were regular gamers, but two to of the five subjects to play the game and respond to a survey did read some of the book after playing the game.

Smith et. al (2011) in their study investigated how computer games and maps compare as preparation for readers to comprehend and retain spatial relations in text narratives. The researcher believed that studying maps before reading improves retention of general details from non-narrative readings . Eighty 11-year-olds participated in all three experimental conditions: 1) studying a map with sound and animations but no interaction, 2) playing an interactive computer game, and 3) completing a filler task. Each condition was followed by reading a narrative and then taking a spatial posttest. In terms of multiple-choice posttests, map condition had the highest average number correct, closely followed by the computer game. Filler task condition was a distant third. No between-condition differences were found for the reading times on sentences with changes in protagonist location. Results suggest that maps may be superior to computer games as preparation for spatial reading.

Flowers (2007) in his study found a need to support the development of appropriate strategies and dispositions required for African American students to become proficient readers. This article highlights promising areas of research and related educational practice, some of which are currently overlooked in relation to this student group. The author offers several recommendations for reading researchers, categorized by the following themes: (1) standardized testing; (2) teacher quality; (3) after-school programs; (4) parent involvement; (5) reading and study skills; and (6) computer games and simulations.

Warren and Dondlinger (2008) examined whether game elements could be used along with Problem Based Learning (PBL) in a digital learning environment to improve student writing. Two settings were used for research in this study. The first was the school itself, and the second was the technology-supported learning environment in which the students engaged with the learning, entertainment, and metacognitive activities. The participants included 44 Indian students in two fourth grade classrooms. The researcher employed a quasi-experimental and pretest-posttest comparison design. Results from this study included statistically significant decreases in teacher time spent answering procedural and directional questions, increased voluntary student writing, and improved standardized achievement scores on writing tasks.

Rutherford (2010) in his thesis examines the connection between video games and composition pedagogy. Video games are defined generally, and then specifically outlined in relation to writing classrooms. The remainder of the thesis outlines three distinct examples of ways composition pedagogy might connect with the interdisciplinary field of game studies. Chapter 2 outlines a heuristic of interrelated approaches – contextual, narrative, and procedural – to analyze video games as rhetorical objects. Chapter 3 introduces “serious games” as an enactment of the heuristic and as a type of video game that fits with composition’s goals of citizenship education. Chapter 4 discusses a class unit where in students programmed/wrote text-based video games, arguing that writing and programming overlap and suggesting this overlap is a fruitful space to explore in writing classrooms.

Colby, S. and Colby, R. (2008) utilized a descriptive study in the United States that supported integrating computer games into the writing classroom. Then, the researchers offered an example of an enacted emergent pedagogy in which students play the massively multiplayer online role-playing game World of Warcraft throughout the term,

composing self – determined, rhetorically focused writing projects informed by play and written for other game player.

The researchers displayed a vital role that such computer game has. It represented in not only having collaborative guidance from the teacher throughout but in understanding the objectives as they write. The students will meet the course objectives through their writing and playing tasks.

Another descriptive study was accomplished in the united stated by Moberly (2008) for incorporating composition and writing activities into their game play.

The researcher introduced the importance of using computer games for not only requiring players to read and to make meaning of symbols presented on the screen but for writing and revising the students' actions in the game relationship to these symbols. Also, computer games thus have the potential to help students not only understand the fundamentals of the compositional process and the larger socio- political structures within which this process occurs but to recognize how these socio- political structures construct reading and writing and in doing so determine the way that the individuals subject to them construct (read and write) themselves.

Thomas and Austin (2005) in their descriptive study tried to describe a number of interactive games the authors have devised to foster enjoyment of grammar instruction. The researchers believed that providing resources and options, mixture of games and electronic activities will serve students' writing needs and enhance the basic writing skills of students, while maintaining interest and enthusiasm for them. Also, the researcher utilized the advantages of using computer games and electronic activities. Since games and electronic activities can replace or add onto the traditional skill-and-drill approaches to teaching grammar, allowing students to form other learning connections. Games and electronic activities give students opportunities to work alone or in groups where cooperative and collaborative learning makes them accountable for their own learning. Further, students using games and electronic activities experience a sense of control which helps improve their self-confidence. Students using interactive Web sites and software programs experience instant feedback, with graphics and sound effects, making learning fun while developing understanding of specific concepts. Finally, games and electronic activities can be used as an assessment tool, giving instructors a simpler option for assessing learning and one that is less

threatening to students. In addition to the grammar Web sites, grammar games add an interesting change of pace to the writing classroom.

General Commentary on the Previous Studies

The researcher reviewed various studies directly relevant to the theme of this study. As a result, this has enriched the researcher's background and broadened her understanding in this regard. The researcher found that the reviewed studies were various and beneficial for the research. They were conducted by different researchers in different countries, universities, and schools, administered on different students in different levels from different countries and universities, and adopted different kinds of tools to achieve their aims. There are relationships (similarities and differences) between these studies and the current one. The following conclusions can be driven:

- Considering the first domain all of the studies showed that educational computer games strategy has a remarkable, positive effect on developing students English language learning and motivating them. This method is effective in teaching/learning process especially TEFL because it helps the teacher to create authentic learning.
- With regard to the second domain. All studies revealed the significance of using educational computer games in developing students' achievement.
- While the third domain, revealed the significance of using educational computer game on developing students' language skills.

Some studies like Doran (2010), Smith et. Al (2010) and Flowers (2007) devote themselves to examine the effect of computer games on developing the students' reading skill. Others like Rutherford (2010), Colby, S. and Colby, R. (2008), Moberly (2008) and Warren & Dondlinger (2008) investigate the effect of educational computer games on developing students' writing skills.

Liue and Chu (2010) examined the effect of computer games on English learning achievement of listening and speaking.

Turgut and Irgin (2009) examined the effect of computer games on English learning achievement of vocabulary and pronunciations.

Thomas and Austin (2005) studied the effect of computer games on students' grammar achievement.

Other studies like Kangas (2010), Suh et. Al (2010), Paraskeva et. Al (2010), Falloon (2010), Chuang et. al (2009), Kim et. al (2009), Judge (2005), Cameron & Dwyer (2005) and Donmus (2010) examined the effect of using computer games on students' academic achievement.

On the other hand, the rest of the studies, examined the effect of computer games on developing students' learning and motivating them towards learning such as Durkin and Barber (2002), Amory & Seagram (2003), Wallenius et. al (2009), whitlock (2004), Botting et. al (2006) and Chalup et. al (2005).

The important issue that the researcher observed in the previous studies is the homological results, since all the previous studies showed positive effect of using computer games on developing students' learning and achievement as well.

Most importantly, all the previous studies are very new as one study occurred in 2011, eight studies in 2010, five in 2009, three in 2008, one in 2007 and eight studies in 2002-2006.

With regard to instruments, the previous studies displayed various tools. They included pre-test, post-test, interviews, observation, surveys, semi-structured interview and quasi-experimental design.

It should be mentioned that some of those previous studies used more than one tool in the same study. For example, Liu and Chu (2010) used three instruments which were: test, survey and interviews.

Chuang et. al (2009), Kim et. al (2009), Cameron and Dwyer (2005), Turgut and Irgin (2009), Owston et. al (2009), Smith et. al (2011), Kangas (2010), Suh et.al (2010) and Warren & Dondlinger (2008) utilized experimental studies to examine the effect of computer games on students achievement and their learning skills.

Moreover, Whitlock (2004), Botting et. al (2006), Chalup et. al (2005), Falloon (2010), Donmus (2010), Flower (2007), Rutherford (2010), Colby, S. & Colby, R. (2008), Moberly (2008), Amory & Seagram (2003), Paraskera et. al (2010) and Thomas and Austin (2005) utilized descriptive studies to point out the benefits and the characteristics of the educational computer games.

Durkin and Barber (2002), Wallenius et. al(2009), Judge (2005), Liu and Chu (2010) and Doran (2010) utilized surveys in implementing their studies.

All the studies conducted were foreign studies. However, no study in Gaza nor in Arab countries adopted a study for educational computer games that tackled the effect of Computer-Games on the students' achievement in English language. Studies in different subjects benefited the researcher in the sense that the core of computer- games as a strategy is to create a suitable learning that stimulates the students' energy towards learning. This energy fosters students' interaction which results in better achievement.

This study may differ from the other studies in a number of points:

The place: as it is the first study that adopts learning by educational computer games and its effect on student's English language achievement in Arab countries in general and in Gaza refugees schools in particular, to the researcher's best knowledge – with their special conditions- that studies the effectiveness of using educational computer games on English language achievement in Gaza.

The Palestinian context in the Gaza strip: The context in the Gaza strip is unique and special as UNRWA provides services in three important sectors; teaching, health and sanitations for the refugees. A lot of people are unemployed and suffer from poverty, they depend on some nutritional supplies from UNRWA. In general, the economical situation is miserable due to the Israeli siege. The political issue is frozen and leaves the Palestinians with almost no hope in the near future. The only port between Gaza and the world is Rafah terminal which is controlled by Israel. Israel uses this terminal as a means for exaction whenever it needs to impose some issues on the Palestinians. The situation in Gaza is very complicated and has reflections on education and the student's level of achievement.

The target group: administering the experiment of the fifth graders' has its significance being a basic stage. That means the research's results can be generalized to other stages.

The literature review has paved the way for the researcher, facilitated her work and provided her with model instruments used for collecting and analyzing data to carry out this study. The researcher wishes that this study would be a circle in this hard work series.

Moreover, in researcher based knowledge did not find any study that investigated the effect of computer games on developing 5th grades' English language achievement in Gaza UNRWA schools. It should be mentioned that this study with main textbook is based on the

Palestinian curriculum. Generally, the available literature about computer game strategy is still in need. By carrying out such a study, the researcher hopes to enrich the empirical studies in this field of teaching/learning English skills.

Summary

This chapter consisted of two sections; Theoretical framework and previous studies.

Literature review included four important scopes:

The first scope presented an idea about technology as an integrated process in education, e-learning along with its definitions, principles and tools based on computer.

The second scope gave details about the nature of "play" being children's activity that has significant benefits in developing their characters in different aspects.

The third scope showed the pedagogical significance of educational computer games in teaching and learning process in general and in teaching English in particular. It indicated the criteria of selecting, preparing and implementing educational computer games in English Language class.

The fourth scope presented the effect of educational computer games on students' cognitive processes, its effect on learning and teaching processes along with researcher's future expectations towards learning and teaching process in the light of technological progress.

Previous studies included three scopes:

The first scope introduced related studies concerning using educational computer games in developing English language learning.

The second scope introduced related studies concerning using educational computer games in developing student's achievement.

The third scope introduced related studies concerning using educational computer games in developing English language learning skills.

From this literature review, it is evident that the issue of educational computer games is still in need of more research. Nevertheless, there are important implications for the teacher thinking about implementing a learning strategy based on computer games. An effective teacher needs to have a resource bank of different teaching methods and activities to draw on from time to time so that maximum learning for as many students as possible can be facilitated. In addition, this review of related literature revealed that a variety of instruments

have been used to identify existing preferred learning strategies. It also showed how the researcher benefited from those studies and how the study is different from those studies. The next chapter reviews methodology of the study.

Chapter III

Methodology

Chapter III

Methodology

Introduction

This chapter contains the procedures followed throughout the study. It introduces a complete description of the methodology of the study , the population , the sample , the instrumentation ,the pilot study, a description of language games used in the study and the research design . Moreover , it introduces the statistical treatment for the study findings .

3.1 Research design

The study attempted the experimental approach which requires two groups of the students ; an experimental group and a control one . The strategy of educational computer games was used in teaching the subjects of the experimental group while the traditional method was used with the control group subjects .

3.3 The sample of the study

The sample of the study consisted of (140) students distributed into four groups . Two experimental groups and two control groups which consisted of (35) students for each. The researcher used a purposive sample chosen from Beach Elementary Boys "A" school and Beach Preparatory Girls "G" school in Gaza where the researcher administered the experiment and where she works as a teacher of English language for the fifth graders . Ten students (six male and four female) were eliminated due to their absence. Table (1) shows the distribution of the sample.

Table (1)

The distribution of the sample according to the groups

Group	Experimental	Control
Male	35	35
Female	35	35

Since the sample had been chosen from two UNRWA school, the four groups were equivalent in the economic , cultural and social level . They were equivalent in their general achievement in accordance with the statistical treatment of their results in the second term of the school year (2010-2011). They were equivalent in their English language achievement

in accordance with the statistical treatment of their results in the mid- first term exam of the school year (2011-2012). Age variable of the sample was also controlled before the experimental application

3.4 The variables of the study

The study included the following variables:

A- The independent variable: represented in

1- The teaching method

1.1 The Educational Computer Games method

1.2 The traditional method

2- Gender

2.1 Male

2.2 Female

3- The students' general ability of English language

3.1 High achievers

3.2 Low achievers

B- The dependent variable: represented in

The students' achievement in English language

3.5 Controlling the variables

To assure the results' accuracy and avoid any marginal interference, the researcher tried to control some variables before the study.

1-Age variable

The researcher recorded the students' ages from their school files at the beginning of the school year (2011-2012). T-Test and One Way ANOVA were used to measure any statistical differences .

Tables (2)- (3) indicate that there were no statistically significant differences at (0.05) level between the experimental and the control groups due to age variable.

A: The two groups

Table (2)

T-test results of controlling age variable

scope	Group	N	Mean	Std. Deviation	t	Sig. value	Sig. level
Age	experimental	70	11.449	0.252	0.269	0.788	not sig.
	Control	70	11.460	0.230			

“t” table value at (138) d f. at (0.05) sig. level equal 1.96

“t” table value at (138) d f. at (0.01) sig. level equal 2.58

B: The four groups

Table (3)

One Way ANOVA style results of controlling age variable

scope	Variance resource	Sum of Squares	Df	Mean Square	F	Sig.	Sig. level
Age	Between Groups	57.393	3	19.131	10.170	0.000	not sig.
	Within Groups	255.829	136	1.881			
	Total	313.221	139				

“F” table value at (3, 139) d f. at (0.05) sig. level equal 2.67

“F” table value at (3, 139) d f. at (0.01) sig. level equal 3.91

2- General achievement variable

T-test and One Way ANOVA Style were used to measure the statistical differences between the groups due to their general achievement. The subjects' results in the second term test of the school year (2010-2011) were recorded and analyzed. Tables (4)- (5) show that there were no statistical differences at (0.05) between the experimental and the control subjects due to the general achievement variable.

A: The two groups

Table (4)

T-test results of controlling general achievement variable

scope	Group	N	Mean	Std. Deviation	t	Sig. value	Sig. level
General	experimental	70	778.714	159.153	0.443	0.658	not sig.
	Control	70	766.814	158.555			

“t” table value at (138) d f. at (0.05) sig. level equal 1.96

“t” table value at (138) d f. at (0.01) sig. level equal 2.58

B: The four groups

Table (5)

One Way ANOVA style results of controlling general achievement variable

scope	Variance resource	Sum of Squares	df	Mean Square	F	Sig.	Sig. level
General	Between Groups	6789.907	3	2263.302	0.088	0.966	not sig.
	Within Groups	3480565.314	136	25592.392			
	Total	3487355.221	139				

“F” table value at (3, 139) d f. at (0.05) sig. level equal 2.67

“F” table value at (3, 139) d f. at (0.01) sig. level equal 3.91

3- General achievement in English language variable

T-test and One Way ANOVA were used to measure the statistical differences between the groups due to their general achievement. The subjects' results in the mid-first term test of the school year (2010-2011) were recorded and analyzed. Tables (6)- (7) show that there were no statistical differences at (0.05) between the experimental and the control subjects due to the general achievement in English variable.

A: The two groups

Table (6)

T-test results of controlling general achievement in English variable

scope	Group	N	Mean	Std. Deviation	t	Sig. value	Sig. level
English	experimental	70	15.743	1.954	0.803	0.423	not sig.
	Control	70	15.486	1.832			

“t” table value at (138) d f. at (0.05) sig. level equal 1.96

“t” table value at (138) d f. at (0.01) sig. level equal 2.58

B: The four groups

Table (7)

One Way ANOVA style results of controlling general achievement in English variable

scope	Variance resource	Sum of Squares	df	Mean Square	F	Sig.	Sig. level
English	Between Groups	4.657	3	1.552	0.429	0.733	not sig.
	Within Groups	492.514	136	3.621			
	Total	497.171	139				

“F” table value at (3, 139) d f. at (0.05) sig. level equal 2.67

“F” table value at (3, 139) d f. at (0.01) sig. level equal 3.91

4- Previous learning variable

To make sure that the sample subjects are equivalent in their previous English language achievement, the researcher applied the pre-achievement test. The results of the subjects were recorded and statistically analyzed using T-Test and One Way ANOVA techniques.

Tables (8)- (9) show the mean and the standard deviation of each group in English previous learning. The results' analysis indicated that there were no statistically significant differences

between the experimental and the control groups at (0.05) level due to their previous learning of English before the experiment.

A: The two groups

Table (8)

T-test results of controlling previous learning in English variable on the pre-test

scope	group	N	Mean	Std. Deviation	t	Sig. value	Sig. level
Listening	experimental	70	4.271	1.793	0.908	0.365	not sig.
	Control	70	4.543	1.742			
Speaking	experimental	70	4.900	2.444	0.979	0.329	not sig.
	Control	70	4.500	2.388			
Reading	experimental	70	3.857	2.544	0.829	0.409	not sig.
	Control	70	4.214	2.553			
Writing	experimental	70	3.186	2.975	0.835	0.405	not sig.
	Control	70	3.600	2.896			
Word and structures	experimental	70	5.729	3.221	0.078	0.938	not sig.
	Control	70	5.771	3.311			
Total	experimental	70	21.943	9.764	0.423	0.673	not sig.
	Control	70	22.629	9.435			

“t” table value at (138) d f. at (0.05) sig. level equal 1.96

“t” table value at (138) d f. at (0.01) sig. level equal 2.58

B: The four groups

Table (9)

One Way ANOVA style results of controlling previous learning in English variable

scope	Variance resource	Sum of Squares	df	Mean Square	F	Sig.	Sig. level
Listening	Between Groups	11.564	3	3.855	1.242	0.297	not sig.
	Within Groups	422.229	136	3.105			
	Total	433.793	139				
Speaking	Between Groups	5.629	3	1.876	0.317	0.813	not sig.
	Within Groups	805.771	136	5.925			
	Total	811.400	139				
Reading	Between Groups	21.964	3	7.321	1.133	0.338	not sig.
	Within Groups	878.857	136	6.462			
	Total	900.821	139				
Writing	Between Groups	44.593	3	14.864	1.757	0.158	not sig.
	Within Groups	1150.800	136	8.462			
	Total	1195.393	139				
Word and structures	Between Groups	15.679	3	5.226	0.488	0.691	not sig.
	Within Groups	1456.571	136	10.710			
	Total	1472.250	139				
Total	Between Groups	298.286	3	99.429	1.087	0.357	not sig.
	Within Groups	12438.286	136	91.458			
	Total	12736.571	139				

“F” table value at (3, 139) d f. at (0.05) sig. level equal 2.67

“F” table value at (3, 139) d f. at (0.01) sig. level equal 3.91

3.6 Instrumentation

To achieve the aims of the study, the researcher used the following tools :

- _ Achievement test, and
- _ Educational Computer Games Strategy.

3.6.1 Achievement test

A pre-post achievement test prepared by the researcher and a group of expert teachers and supervisors displayed their recommendations and suggestions to measure the subjects' achievement. It was used as a pre test applied before the experiment and as a post test applied after the experiment .(Appendix: A4) (p.133)

1- The general aims of the test

The test aimed at measuring the effect of the educational computer games strategy on the subjects' achievement in English language. It was built according to the criteria of test specification.

2- The items of the test

The items of the test fell into five scopes

A_ Listening

This scope includes seven items that measure students' knowledge and comprehension . Students have to listen and number the pictures within four items . They are to listen and put ' True ' or ' False ' within three other items .

B- Speaking

This scope includes eight items that measure students' knowledge and comprehension . Students have to complete a dialogue within four items . In the other four items they are to match two columns to form meaningful dialogues .

C- Reading

This scope includes fifteen items that measure students' knowledge ,comprehension and thinking skills. Students have to read a passage and answer comprehension questions, they are to answer two puzzles depending on their knowledge then they have to reorder jumbled events to form a meaningful story .

D- Writing

This scope includes ten items that measure students' knowledge ,comprehension, application and thinking skills. Students have to answer three questions depending on their

knowledge. In two items they have to apply the punctuation rules they have studied, in the other two items they are asked to form meaningful sentences through re-arranging jumbled words. They are to order words alphabetically in two other items. In the last item students have to think of and write two words that begin with "s".

E- Language (structures and words)

This scope includes fifteen items that measure students' knowledge ,comprehension, application and thinking skills. The items are divided into four categories ; choose the correct answer , fill in the spaces, correct the underlined mistakes and circle the odd one out.

4- The pilot study

To examine the appropriateness of the test's items as well as their validity and reliability, the test was administered on a random sample of (30) students; 15 students male from Al Beach Elementary Boys "A" School and 15 student female from Beach Preparatory Girls "G" School. The results were recorded and statistically analyzed. The necessary revisions and recommendations were made in the light of the statistic results.

5- The validity of the test

Al Agha (1996:p.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 panel of specialists in English language and methodology in Gaza universities, Ministry of Education and experienced supervisors and teachers in UNRWA schools . The items of the test were modified according to their recommendations.

B) The content validity

The test specification was designed according to the general objectives of the content (Appendix:A.1) (p.128), the content analysis (Appendix:A.2)(p.130) and the weight of each skill and the objectives of the test . The fifth grade syllabus consists of (24) units each consists of (4) lessons ; reading lesson , listening and speaking lesson, language structures and words lesson and writing lesson with the proportion of 25% for each lesson . These skills were equally represented in the test specification and therefore their items in the test. The test items for each skill accord with the general objectives of the skill and its nature according to the syllabus, reading is taught in the form of comprehension, structures are taught in the form of

application so there is a consistency between the items of the test and the cognitive levels of Bloom's Taxonomy. (Appendix: A.3) (p.132)

C) The internal consistency validity

Al Agha (1996:p.121) refers that the internal consistency validity indicates the correlation of the degree of each item with the total average of the test . It also indicates the correlation coefficient of the average of each scope with the total average. This validity was calculated by using Pearson Equation. The correlation coefficient of each item within its scope is significant at levels (0.01) and (0.05).

Table (10) shows the correlation coefficient of each scope with the whole test. According to and table (10), it can be concluded that the test was highly consistent and valid as a tool for the study.

Table (10)

Correlation coefficient of the scopes with the test

Domain	Item	Correlation with domain	Item	Correlation with domain
Listening	1	0.462**	5	0.480**
	2	0.815**	6	0.586**
	3	0.650**	7	0.644**
	4	0.365*		
Speaking	1	0.554**	5	0.679**
	2	0.508**	6	0.575**
	3	0.377*	7	0.468**

Domain	Item	Correlation with domain	Item	Correlation with domain
	4	0.606**	8	0.379*
Reading	1	0.927**	9	0.930**
	2	0.920**	10	0.925**
	3	0.930**	11	0.870**
	4	0.871**	12	0.347*
	5	0.908**	13	0.930**
	6	0.879**	14	0.979**
	7	0.979**	15	0.927**
	8	0.971**		
Writing	1	0.624**	7	0.412*
	2	0.735**	8	0.572**
	3	0.642**	9	0.585**
	4	0.507**	10	0.519**
	5	0.556**	11	0.537**
	6	0.440*		
Word and structures	1	0.875**	6	0.934**
	2	0.387*	7	0.875**
	3	0.967**	8	0.934**
	4	0.875**	9	0.379*
	5	0.904**	10	0.945**

In addition, the researcher computed the correlation of the test domains with the test as a whole. Table (11) describes the results.

Table (11)

Correlation coefficient of test domains with the test as a whole

Domain	Correlation with total
Listening	0.368*
Speaking	0.447**
Reading	0.839**
Writing	0.736**
Word and structures	0.678**

*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

6- The reliability of the test

The test is reliable when it gives the same results if it is reapplied in the same conditions. (AI Agha,1996:p.118) The reliability of the test was measured by KR20 and the Spilt- half methods. According to tables (12) the test was proved to be reliable. **KR20** coefficient was (0.811) and the Spilt- half coefficient was (0.921)

Table (12)

(KR20) and Split half coefficients of the test domains

Test Domains	KR20)	Split half coefficients of the test domains
Listening	0.499	0.630
Speaking	0.654	0.614
Reading	0.985	0.982
Writing	0.801	0.745
Word and structures	0.815	0.884
Total	0.811	0.921

7_ Difficulty Coefficient

That means the percent of the falling student to the total student who answered the test, we can calculate this from the following equation:

$$\text{Difficulty Coefficient} = \frac{\text{No. of falling student}}{\text{the total student who answered the test}} \times 100$$

Table (13) show the difficulty coefficient for each items of the test:

Table (13)

Difficulty coefficient for each items of the test

No.	Difficulty coefficient	No.	Difficulty coefficient	No.	Difficulty coefficient
1	0.40	20	0.30	39	0.30
2	0.30	21	0.33	40	0.23
3	0.30	22	0.27	41	0.30
4	0.37	23	0.37	42	0.23
5	0.30	24	0.33	43	0.33
6	0.33	25	0.30	44	0.27
7	0.27	26	0.33	45	0.33
8	0.33	27	0.37	46	0.27
9	0.30	28	0.30	47	0.33
10	0.33	29	0.37	48	0.30
11	0.30	30	0.30	49	0.27
12	0.30	31	0.27	50	0.27
13	0.27	32	0.33	51	0.33
14	0.47	33	0.27	52	0.30
15	0.33	34	0.27	53	0.33
16	0.30	35	0.33	54	0.27
17	0.30	36	0.33	55	0.37
18	0.27	37	0.30	56	0.33
19	0.33	38	0.27		
Total difficulty coefficient	0.31				

Table (13) shows that the difficulty coefficient wobble between (0.27 – 0.40) with total average (0.31), that means each of item acceptable or in the normal limit of difficulties according view of point of assessment and evaluation specialist.

8_ Discrimination coefficient:

That's mean the test ability to discriminate between the high achievers and the low achievers.

$$\text{Discrimination Coefficient} = \frac{\text{No. of the student who has the correct answer from the high achievers}}{\text{No. of high achievers}} - \frac{\text{No. of the student who has the correct answer from the low achievers}}{\text{No. of low achievers}}$$

Table (14) show the discrimination coefficient for each items of the test:

Table (14)

Discrimination coefficient for each items of the test

No.	Discrimination coefficient	No.	Discrimination coefficient	No.	Discrimination coefficient
1	0.27	20	0.33	39	0.33
2	0.33	21	0.27	40	0.33
3	0.33	22	0.27	41	0.33
4	0.33	23	0.33	42	0.33
5	0.47	24	0.27	43	0.27
6	0.27	25	0.33	44	0.27
7	0.53	26	0.27	45	0.27
8	0.27	27	0.33	46	0.27
9	0.33	28	0.33	47	0.27
10	0.27	29	0.33	48	0.33
11	0.33	30	0.33	49	0.40
12	0.33	31	0.27	50	0.40
13	0.40	32	0.27	51	0.40
14	0.27	33	0.27	52	0.33
15	0.27	34	0.53	53	0.27
16	0.33	35	0.40	54	0.27
17	0.33	36	0.40	55	0.33
18	0.40	37	0.20	56	0.27
19	0.40	38	0.53		
Total Discrimination coefficient	0.33				

Table (14) shows that the discrimination coefficient wobble between (0.27 – 0.40) with total average (0.33), that mean each of item acceptable or in the normal limit of discrimination according view of point of assessment and evaluation specialist.

3.6.2 The Educational computer games Program

- The construction of the educational computer games program

In this study, " educational computer game strategy " contains a selection of 21 short games that enable the researcher to design 30 short computer games in her program by getting use of the computer games themselves in other content. In other words, there are nine repeated computer games that hold the same name and the same idea applied in other contents. These games were developed and computerized by the researcher from different sources. They are varied and evolved all the main academic skills represented in : reading, writing, listening, speaking, vocabulary and structure. These games are designed for individual, pair, and group work and occasionally whole class activities. These games are graded according to the fifth level.

The strategy includes the first four units of " English for Palestine-5" for the first semester. It starts with a screen, it shows the units of textbook on the right margin. There are thirty button for thirty game under the four units that enable the students to click and enter easily to the game card. Every game card contains the name of the game, the skill, the unit number and lesson, the objective, the questions, pictures, sound, and immediate feedback. The students receive the feedback as soon as answering the questions whether it is right or wrong along with presenting the correct answer.

- The characteristics of the current educational computer games program

The games in the computerized program are co-operative games, in which players or team work together towards a common goal according to their speed.

They are also communicative games, in which players use the language through interacting and involving into tasks.

Also, they are considered as an integral part of the language syllabus, not as an amusing activity for the end of term. They work as a supportive material along with the curriculum.

They provide, in many cases, as much concentrated practice as a traditional drill and, more importantly, they provide an opportunity for real communication, and thus constitute a bridge between the classroom and the real world.

Such computerized program was prepared in order to match students' needs and levels.

- The aim of the educational computer games program

The aim was using these games to teach the first four units of " English for Palestine-5 " for the experimental groups. This E-learning program considered the individual differences in learning foreign language in Elementary schools. In addition, this program offers motivation, self learning, concentration, collaboration, and immediate feedback.

- The sources of designing the educational computer games program

Regarding the idea, the researcher got great benefits and enriched her mind with various sources such as : supervisors, teachers, educators, program designers, researchers, books and web sites. The teacher could develop such traditional games to be computerized.

According the content, the games work as a supportive material along with the curriculum.

- The implementation of the educational computer games program

The researcher applied the program on both male and female students.

First, the researcher talked to the pupils about the experiment in order to warm them for learning through computer games in school computer lab. The pupils were excited and they were involved in the teaching/learning process.

The teacher told the students about the computer games CD. The students were asked to use the computers in the computer lab. The teacher organized the students in away that facilitated using games individually, in pair and group work. Since the number of computers doesn't exceed twenty four, this promoted the teacher to divide the class into five groups, every group has four computers, and every computer is reserved for two students.

The teacher loaded the computer game program to the whole computers, let students look, listen, and interact with the materials on CD, and show her students the way to open it through Local Control Network technique that the teacher used from the main computer in the lab. The teacher gave the students the instructions to follow the CD program, then the students were allowed to work independently on the CD. The teacher went around and observed students' performance.

It should be mentioned that the teacher explained to students from the beginning that there are certain games that can be played individually as in reading and listening skills, and most games played in pairs as in writing, speaking, words and structure.

After completion of every game, the teacher asked each of the five groups to sit together with their leaders in each group and play the game in turn. Thus, the teacher encouraged learning from peers, learning from trial and error, and learning by cooperation, Finally, each student was given immediate feedback for his/her answer whether it is right or wrong from the computer along with correct answer presented on the screen.

-The validity of the educational computer games program

To test the games validity, the researcher submitted CD games of the computer first design to a group of English Language supervisors and teachers. The researcher did the required adjustment according to their recommendations.

The games fell into six categories :

1- Vocabulary games

They can be used in the classroom each day as five- minutes warmer and cooler activities.

- Word Building Game

This is a group language game used as an arouser at the pre-requisite phase. It aims to help students recall words relevant to the lesson. There is a list of letters on the computer screen. Students have to choose and click the mouse on the correct letters to complete and remember words . Students work in pairs. They get feedback for their answers from the computer immediately. The winner is the pair with the most correct answers.

- The Spy Code Game

It is a word game where students are to break a code to find some words. The aim of this game is to help students remember relevant words of the lesson. Students in pairs try to break a code of numbers by substituting them with letters. The winner pair is the fastest to find the words with the most correct answers. The game is used in the pre-requisite phase.

- The Scattered Letters Game

It is a word game used in the pre-requisite phase . In this game the students deduce the words through working out puzzles then rearrange the letters to form the word. Moreover, the game develops the students dictation skill. It is an easy and familiar game as the students are used to it in their book. The winner is the pair that work out all the puzzles and form the words correctly within the shortest time.

- The Hidden Word Game

This game is familiar to the students for they have many in their workbook. The game is based on the students' ability to find out some hidden words relevant to a certain topic whether vertically or horizontally. Each pair works together to find and click on all letters of the hidden word to be circled. The students work together to find the words. The group with the most correct findings is the winner.

-Shot Rockets

It's a word game used in the pre-requisite phase. In this game the students have to choose and shot a rocket to the right answer by pressing a click on the mouse. Such games deals with two functions; numbers and ordinal numbers.

- Matching scattered Invisible Card

This kind of games can be used as a warmer in the pre-requisite phase. In this game, students have the chance to strengthen their computer vocabulary by playing a memory game which matches computer parts with their names. Students work individually, since the success or failure of this game depends on the student's own memory.

- Word and Picture

It's a word game used in the pre-requisite phase. In this game the students have to look at the picture in order to choose the correct word related by pressing a click on the correct answer. The students work together and the group with the most correct findings is the winner.

2- Structure games

- Your Words-My Grammar Game

This is a structure game that is used to stimulate students to use "Nationalities" and the "Adverbs" functionally. The game is based on imitating the example presented on the screen. The students work in pairs, co- operate to write as many similar sentences as they can using the keyboard on the computer screen. Feedback is given to each answer immediately. The winner is the group with the most marks.

- Double or Quit Game

This is a competition game where two teams compete in oral grammar quiz. The aim of this game is to practice "Present and past simple tense" . The students listen to some sentences; some wrong but the others are correct . The students read, decide, and click the mouse on the

"T" point if it is true and on the "F" point if it is false. The winner is the ones with the most marks.

- Making Time

This is a structure game that is used to stimulate students to use the hands of the clock to tell the time. The students have to click on the clock's numbers in order to draw the hands. The students get immediate feedback from the computer according his/her answer. The winner is the ones with the most marks.

3- Reading games

-Read and Choose Game (The winner Game)

Reading is comprehension. This is a comprehension game whose aim is to check students' ability to scan a text for specific information quickly and correctly. Then, students have to read and answer the questions. There are ten questions, they are multiple choices. The students have to click on the correct choice using the mouse. The students get immediate feedback from the computer according to their answer. The winner is the ones with the most marks.

- Weed - Read Game

This game depends wholly on students' comprehension of the text and their intelligence to extract any extra words that do not belong to the text. Students work individually then in groups to weed any extra words. It is a good game that helps students realize the cohesion of the sentences. The aim of this game is to develop students' reading skill.

4- Writing games

-What's Wrong Game?

Mastering a skill springs out of mastering its sub-skills. This game deals with two important writing sub-skills; punctuation and spelling. The students are to find the mistakes and correct them. The pairs with the most correct answers is the winner.

-Sentence Building Game

This game is based on understanding the logical order of some given words to make a meaningful sentences.

The students work in pairs or groups. They click on the mouse to get the answer. So, they could get immediate feedback from the computer.

- Get it ...!!

This game stimulates students for recalling and memorizing knowledge. This game contains unscrambled letters and the students have to put these letters in alphabetical order. They click on every letter in turn. So, they could get immediate feedback from the computer.

It should be mentioned that there is a writing game hold the same name in the vocabulary games. It's called " The Scattered Letters Game ". In this game the students have to workout and write some words related to alphabetical order.

5- Listening games

- The Same or Different Game

Listening is a skill that is mastered through training. This game is based on checking students' competence in differentiating between sounds. It is an individual game. The students put the earphone on. They hear a couple of sentences recorded by a native speaker, the student decides if they are the same or different by pressing click on the " Same" point or "Different" point found on the computer screen.

- Filling the Gaps Game

This game is based on checking students' concentration and attention to what they hear, so that they can fill the gaps by pressing click on the suitable word listed above. This game is done individually.

6- Speaking games

- Matching Game

The aim of this game is to practice oral questions and match two columns to form meaningful dialogue. Students work in pairs . A student "A" reads a question, a student "B" gives a suitable answer and clicks on it by the mouse. Feedback is given to each answer. The winner is the pairs with the most marks.

-Talking about Ourselves Game

In this game, students work in pairs. One reads the sentences that express about themselves, and the other one chooses the suitable answer from the list to complete the gaps. As a result, immediate feedback is given to them.

- The Clock

In this game, students work in pairs. One asks about the time, and the other student looks at the clock to choose the answer. In the second question, they can exchange their roles. Feedback is given immediately.

- Who am I

The aim of this game is to enable the students to practice the language and communicate with each others effectively.

This game contains three pictures of animals. The first student has to play a role of an animal by saying for instance, " I run quickly, who am I?". the other student has to click on the hare answer. The students can exchange their roles. Feedback is given immediately.

3.7 The statistical analysis

- The data were collected and computed by using (SPSS) Statistical Package for Social Science, Pearson correlation, (KR20) and Split half coefficients of the test domains were used to confirm the test validity and reliability.

- On the other hand, T-Test, T-Test paired sample and One Way ANOVA were used to measure the statistical differences in mean between the experimental and the control groups due to the teaching method, the gender and the students' level in English language whether high or low achievers.

- "Scheffe' Post Test" test was used to identify the direction of differences among the groups; male experimental, male control, female experimental, and female control.

- "D" and " η^2 " were calculated to measure the effect size of educational games strategy on the different skills of English language.

3.8 Limitations of the study

- The study aimed to develop English language achievement for the fifth graders (male and female) in UNRWA schools in Gaza Western governorates.

- The study was applied In the first semester of the school year (2011 - 2012)

The study was limited to teaching English language textbook "English for Palestine 5" units (1 - 2 - 3 - 4) through implementing educational computer games.

The experiment lasted within five weeks in October and November 2011.

3.9 Data collection procedures

- Studying the researches and studies conducted on educational computer games in general and the implementation of educational computer games in teaching English in particular.
- Analyzing the content of the suggested units.
- Preparing a teacher guide based on using games in teaching the content of the suggested units.
- Designing the achievement test with the help of a group of good teachers ..
- Consulting experts in English language and methodology to assure the test statistical validity.
- Applying the pre-test recording and interpreting the results.
- Teaching the content using the educational computer games program with the experimental group and the traditional method with control group.
- Applying the post-test, recording and interpreting the results.
- Presenting recommendations and suggestions in the light of the study findings.

Chapter IV

Results: Data Analysis

Chapter IV

Data Analysis

Introduction

The study aimed at investigating the effectiveness of educational computer games strategy on the fifth graders' achievement in English language.

This chapter introduces the statistical treatment of the groups' results and data analysis as well as its statistical significance. T- test and One Way ANOVA in addition to mean, standard Deviation and "Scheffe' Post Test" were used to test the hypotheses of the study.

4.1 Data Analysis

1-The First Hypothesis

-There are no statistically significant differences at ($\alpha \leq 0.05$) in achievement level between the students who learn English language through game (experimental group) and those who learn English language through the traditional method (control group).

To investigate the first hypothesis, mean and standard deviation of the experimental and the control groups' results were computed.

(T- Test) was used to measure the significance of differences. Table (15) shows that "t" computed value is larger than "t" table value in all scopes and the total degree. This means that there are significant differences in favor of the experimental group due to the educational games strategy. As a result the hypothesis is totally rejected.

Table (15)

T- test results of differences between the exp. and the cont. group in the post-test

Scope	Group	N	Mean	Std. Deviation	T	Sig. value	sig. level
Listening	Experimental	70	6.371	1.038	5.218	0.000	sig. at 0.01
	Control	70	5.157	1.647			
Speaking	Experimental	70	6.643	1.753	5.340	0.000	sig. at 0.01
	Control	70	4.800	2.294			
Reading	Experimental	70	6.914	3.467	4.122	0.000	sig. at 0.01
	Control	70	4.714	2.814			
Writing	Experimental	70	7.514	3.391	5.395	0.000	sig. at 0.01
	Control	70	4.386	3.470			
Word and structures	Experimental	70	9.386	3.649	4.723	0.000	sig. at 0.01
	Control	70	6.371	3.898			
Total	Experimental	70	36.829	11.311	6.163	0.000	sig. at 0.01
	Control	70	25.300	10.818			

“t” table value at (138) d f. at (0.05) sig. level equal 1.96

“t” table value at (138) d f. at (0.01) sig. level equal 2.58

To specify the effect size of the educational computer games strategy, the researcher computed " η^2 " using the following formula:

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

And "d" value using the following formula:

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

The results of " η^2 " and " d " values shown in table (17) indicate large effect of educational computer games strategy in almost all the test scopes.

Table (16)

The table references to determine the level of size effect (η^2) and (d)

Test	Effect volume		
	Small	Medium	Large
η^2	0.01	0.06	0.14
D	0.2	0.5	0.8

Table (17)

"t" value, eta square " η^2 ", and "d" for each domain and the total degree

Domain	T value	η^2	D	Effect volume
Listening	5.218	0.165	0.888	Large
Speaking	5.340	0.171	0.909	Large
Reading	4.122	0.110	0.702	Medium
Writing	5.395	0.174	0.919	Large
Word and structures	4.723	0.142	0.804	Large
Total	6.163	0.216	1.049	Large

2- The Second Hypothesis

-There are no statistically significant differences at ($\alpha \leq 0.05$) in achievement level between the high achievers in the experimental group and their counterparts in the control one.

To investigate the second hypothesis, mean and standard deviation of the experimental and the control groups' results were computed. (T- Test) was used to measure the significance of differences. Table (18) shows that "t" computed value is larger than "t" table value in all scopes and the total degree. This means that there are significant differences in favor of the experimental group high achievers due to the educational computer games strategy. As a result the hypothesis is totally rejected.

Table(18)

T- test results of differences between the exp. and the cont. high achievers in the post-test

criteria	Applied	N	Mean	Std. Deviation	T	Sig. value	Sig. level
Listening	High achievers expo	18	6.222	1.396	2.794	0.008	sig. at 0.01
	High achievers control	18	4.833	1.581			
Speaking	High achievers expo	18	6.556	1.947	2.832	0.008	sig. at 0.01
	High achievers control	18	4.333	2.701			
Reading	High achievers expo	18	6.278	2.585	2.800	0.008	sig. at 0.01
	High achievers control	18	3.944	2.413			
Writing	High achievers expo	18	7.444	3.240	5.158	0.000	sig. at 0.01
	High achievers control	18	2.611	2.304			
Word and structures	High achievers expo	18	9.944	3.857	4.238	0.000	sig. at 0.01
	High achievers control	18	4.722	3.528			
Total	High achievers expo	18	36.444	10.837	4.749	0.000	sig. at 0.01
	High achievers control	18	20.444	9.319			

“t” table value at (34) d f. at (0.05) sig. level equal 2.05

“t” table value at (34) d f. at (0.01) sig. level equal 2.76

The results of " η^2 " and "d" values shown in table (19) indicate large effect of the educational computer games strategy in the all scopes.

Table (19)

"t" value, eta square " η^2 " , and "d" for each domain and the total degree

Domain	t value	η^2	d	Effect volume
Listening	2.794	0.187	0.958	Large
Speaking	2.832	0.191	0.971	Large
Reading	2.800	0.187	0.960	Large
Writing	5.158	0.439	1.769	Large
Word and structures	4.238	0.346	1.454	Large
Total	4.749	0.399	1.629	Large

3- The Third Hypothesis

-There are no statistically significant differences at ($\alpha \leq 0.05$) in achievement level between the low achievers in the experimental group and their counterparts in the control one.

To investigate the third hypothesis, mean and standard deviation of the experimental and the control groups' results were computed.

(T- test) was used to measure the significance of differences.

Table (20) shows that "t" computed value is larger than "t" table value in all scopes and the total degree. This means that there are significant differences in favor of the experimental group due to the educational computer games strategy. As a result the hypothesis is totally rejected.

Table(20)

T- test results of differences between the exp. and the cont. low achievers in the post-test

criteria	Applied	N	Mean	Std. Deviation	t	Sig. value	Sig. level
Listening	Low achievers expo	18	6.667	0.767	5.546	0.000	sig. at 0.01
	Low achievers control	18	4.722	1.274			
Speaking	Low achievers expo	18	7.222	1.215	5.971	0.000	sig. at 0.01
	Low achievers control	18	4.000	1.940			
Reading	Low achievers expo	18	8.000	3.773	4.291	0.000	sig. at 0.01
	Low achievers control	18	3.500	2.358			
Writing	Low achievers expo	18	8.833	2.792	5.557	0.000	sig. at 0.01
	Low achievers control	18	3.667	2.787			
Word and structures	Low achievers expo	18	9.833	3.053	3.651	0.001	sig. at 0.01
	Low achievers control	18	5.500	4.004			
Total	Low achievers expo	18	40.556	9.901	6.268	0.000	sig. at 0.01
	Low achievers control	18	21.222	8.558			

“t” table value at (34) d f. at (0.05) sig. level equal 2.05

“t” table value at (34) d f. at (0.01) sig. level equal 2.76

The results of " η^2 " and "d" values shown in table (21) indicate large effect of the educational computer games strategy in all the test scopes.

Table (21)

"t" value, eta square " η^2 " , and "d" for each domain and the total degree

Scope	t value	η^2	D	Effect volume
Listening	5.546	0.475	1.902	large
Speaking	5.971	0.512	2.048	large
Reading	4.291	0.351	1.472	large
Writing	5.557	0.476	1.906	large
Word and structures	3.651	0.282	1.252	large
Total	6.268	0.536	2.150	large

4- The Fourth Hypothesis

-There are no statistically significant differences at ($\alpha \leq 0.05$) in achievement level between the experimental group and the control one due to gender.

To investigate the fourth hypothesis, (One Way Analysis of Variance) was used to measure the differences in achievement between the experimental groups (male and female) and the control groups (male and female) in the post-test. "Scheffe' Post- Test" test was used to find out the direction of the differences among the four groups.

Table (22) shows that "f" computed value is larger than "f" table value . This means that there are significant differences in the students' total achievement including all the language skills in favor of the experimental group of both sexes.

Table (22)

The results of One Way ANOVA to compare the mean of the four groups male and female "experimental and control "

Scope	Variance resource	Sum of Squares	df	Mean Square	F	Sig.	Sig. level
Listening	Between Groups	57.393	3	19.131	10.170	0.000	sig. at 0.01
	Within Groups	255.829	136	1.881			
	Total	313.221	139				
Speaking	Between Groups	123.907	3	41.302	9.851	0.000	sig. at 0.01
	Within Groups	570.229	136	4.193			
	Total	694.136	139				
Reading	Between Groups	182.029	3	60.676	6.054	0.001	sig. at 0.01
	Within Groups	1363.143	136	10.023			
	Total	1545.171	139				
Writing	Between Groups	433.621	3	144.540	12.823	0.000	sig. at 0.01
	Within Groups	1533.029	136	11.272			
	Total	1966.650	139				
Word and structures	Between Groups	384.079	3	128.026	9.160	0.000	sig. at 0.01
	Within Groups	1900.857	136	13.977			
	Total	2284.936	139				
Total	Between Groups	5258.364	3	1752.788	14.628	0.000	sig. at 0.01
	Within Groups	16296.057	136	119.824			
	Total	21554.421	139				

"F" table value at (3, 139) d f. at (0.05) sig. level equal 2.67

"F" table value at (3, 139) d f. at (0.01) sig. level equal 3.91

On the other hand, the tables (23-24-25-26-27-28) show the direction of the educational computer games strategy in all the scopes and the total achievement according to "Scheffe' Post- Test" test which show statistically significant differences in favor of the experimental group of both genders in all scopes. But, the differences which direct to be in favor of the female experimental group don't promote to be a very significant. It should be mentioned that the differences between genders are clear in the mean in favor of the female experimental group. As a result the hypothesis is totally rejected.

Table (23)

"Scheffe' Post Test" test to know the direction of differences among the four groups in the first scope "**Listening**"

	Male Exp.	Male control	Female Exp.	Female control
	6.114	5.029	6.629	5.286
Male Exp. 6.114	0			
Male control 5.029	*1.086	0		
Female Exp. 6.629	0.514	*1.600	0	
Female control 5.286	0.829	0.257	*1.343	0

*Sig. at 0.05

Table (24)

"Scheffel Post Test" test to know the direction of differences among the four groups in the Second scope "**Speaking**"

	Male Exp.	Male control	Female Exp.	Female control
	6.400	4.686	6.886	4.914
Male Exp. 6.400	0			
Male control 4.686	*1.714	0		
Female Exp. 6.886	0.486	*2.200	0	
Female control 4.914	*1.486	0.229	*1.971	0

*Sig.at 0.05

Table (25)

"Scheffel Post Test" test to know the direction of differences among the four groups in the Third scope "**Reading**"

	Male Exp.	Male control	Female Exp.	Female control
	6.514	4.857	7.314	4.571
Male Exp. 6.514	0			
Male control 4.857	1.657	0		
Female Exp. 7.314	0.800	*2.457	0	
Female control 4.571	1.943	0.286	*2.743	0

Table (26)

Scheffel Post Test" test to know the direction of differences among the four groups in the fourth scope "**Writing**

	Male Exp.	Male control	Female Exp.	Female control
	6.400	4.143	8.629	4.629
Male Exp. 6.400	0			
Male control 4.143	2.257	0		
Female Exp. 8.629	2.229	*4.486	0	
Female control 4.629	1.771	0.486	*4.000	0

Table (27)

Scheffel Post Test" test to know the direction of differences among the four groups in the fourth scope "**Word and structures**

	Male Exp.	Male control	Female Exp.	Female control
	8.457	6.657	10.314	6.086
Male Exp. 8.457	0			
Male control 6.657	1.800	0		
Female Exp. 10.314	1.857	*3.657	0	
Female control 6.086	2.371	0.571	*4.229	0

Table (28)

"Scheffel Post Test" test for knowing the direction of differences among the four groups in the fifth scopes "**Test total degree**"

	Male Exp.	Male control	Female Exp.	Female control
	33.886	25.371	39.771	25.229
Male Exp. 33.886	0			
Male control 25.371	*8.514	0		
Female Exp. 39.771	5.886	*14.400	0	
Female control 25.229	*8.657	0.143	*14.543	0

Summary

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

The results of the first hypothesis showed differences of statistical significance between the experimental and the control one in favor of the experimental group due to the teaching method. The results of the second hypothesis indicated significant differences between the two groups in favor of the experimental group high achievers. The results of the third hypothesis indicated differences of statistical significance between the two groups in favor of the experimental group low achievers. Finally, the results of the fourth hypothesis indicated differences of statistical significance between the groups due to gender in favor of the female group, even though, the differences among both sexes in the experimental groups are very approximate and don't promote to be a significant, but still exist and direct in favor of female group.

The next chapter views findings, discussion, implication and recommendations.

Chapter V

Findings, Discussion, Conclusion, Implications and Recommendations

Chapter V

Findings, Discussion, Conclusion, Implications and Recommendations

Introduction

The purpose of this study was to examine the effectiveness of Educational computer games on the fifth graders' achievement in English language in Gaza Western governorates. To collect data a pre and post test was employed. A panel of specialists agreed that the instrument was valid. The items of the instrument had a KR20 coefficient of (0.811) and Split-half coefficient of (0.921) for the test as a whole. The data were tested through the application of T- test and One Way ANOVA in addition to mean, standard Deviation and "Scheffe' Post-Test" test.

The following null hypotheses were tested at the .05 level or better in this empirical study:

- 1- There are no statistically significant differences at ($\alpha \leq 0.05$) in achievement level between the students who learn English language through educational computer games (experimental group) and those who learn English language through the traditional method (control group).
- 2- There are no statistically significant differences at ($\alpha \leq 0.05$) in achievement level between the high achievers in the experimental group and their counterparts in the control one.
- 3- There are no statistically significant differences at ($\alpha \leq 0.05$) in achievement level between the low achievers in the experimental group and their counterparts in the control one.
- 4- There are no statistically significant differences at ($\alpha \leq 0.05$) in achievement level between the between the experimental group and the control one due to gender.

In this study, this chapter deals with the interpretation of the statistically analyzed data of the hypotheses of the study presented in chapter four. In the light of the statistical results, the researcher concluded the following results:

5.1 Findings

Based on the results of this study, the following findings are observed:

- 1-There are differences of statistical significance in the fifth graders' achievement of English language due to the method in favor of educational computer games strategy.

2-There are differences of statistical significance in the fifth graders high achievers' achievement of English language in favor of the experimental group.

3-There are differences of statistical significance in the fifth graders low achievers' achievement of English language in favor of the experimental group.

4-There are differences of statistical significance in the fifth graders high achievers' achievement of English language due to gender, since they were nearly directed to be in favor of the female experimental group, even though, they don't promote to be significant.

5.2 Discussion

1- Question (1) findings:

The first question inquired the following:

Are there statistically significant differences at ($\alpha \leq 0.05$) in the achievement level between the students who learn English language through educational computer games (experimental group) and those who learn English language through the traditional method (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 achievement level between the students who learn English language through games(experimental group) and those who learn English language through the traditional method (control group).

To test this hypothesis, mean and standard deviation of the experimental and the control groups' results were computed. (T- Test) was used to measure the significance of differences. Moreover "d" and " η^2 " values were computed to estimate the effect size of the educational computer games strategy.

The findings of the study were limited to the experiment " educational Computer games program" since all variables such as, age, general achievement and general achievement of English language were controlled before the experiment.

Table (15) showed that "t" computed value is larger than "t" table value in all scopes of the test and the total degree . This meant that there were differences of statistical significance in the students' general achievement of all the language skills in the post test in favor of the experimental group.

This result agreed with the results of almost all the previous studies like; Kangas (2010), Suh et.al (2010), Paraskeva et.al (2010), Falloon (2010), Chuang et.al (2009), Kim et.al (2009),

Judge (2005), Cameron & Dwyer (2005) and Donmus (2010) that all revealed the positive effect of computer games on the students' achievement and performance. Liu and Chu (2010) that revealed the effectiveness of educational computer games strategy on the achievement of speaking and listening skills. Turgut and Irgin (2009) that revealed the effectiveness of educational computer games strategy on the achievement of English language vocabulary. Warren and Donglinger (2008), Rutherford (2010), Colby(2008) and Moberly (2008) that revealed the effectiveness of educational computer games strategy on the achievement writing skill. Thomas and Austin (2005) that revealed the effectiveness of educational computer games strategy on the achievement of structures.

According to "d" and " η^2 " values shown in table (17), it was observed that the effect size of the educational computer games strategy was large on the students' total achievement including listening, speaking, writing and vocabulary and structures. The effect size was medium on reading skill. This can be ascribed to reading skill being a complex skill that needs a lot and continuous practice. In addition, reading skill has lots of sub skills which are not already acquired for young students yet.

2- Question (2) findings:

the second question inquired the following:

Are there statistically significant differences at ($\alpha \leq 0.05$) in the achievement level between the high achievers in the experimental group and their counterparts in the control one?

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

There are no statistically significant differences at ($\alpha \leq 0.05$) in achievement level between the high achievers in the experimental group and their counterparts in the control one.

(T- test) results showed that there were differences of statistical significance in the favor of the experimental high achievers in all the test scopes. Table (18 & 19).

According to "d" and " η^2 " values , it was observed that the effect size of the educational computer games strategy was large on the all skills and also large on the high achievers' total achievement.

Educational computer games strategy still had positive effect on the high achievers' achievement in all skills. High achievers being good at English have great impulse toward

learning in general , they could enrich their mind with such computerized program that support and promote their learning and achievements.

3- Question (3) findings:

The third question inquired the following:

Are there statistically significant differences at ($\alpha \leq 0.05$) in the achievement level between the low achievers in the experimental group and their counterparts in the control one?

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

There are no statistically significant differences at ($\alpha \leq 0.05$) in achievement level between the low achievers in the experimental group and their counterparts in the control one.

(T- test) results showed that there were differences of statistical significance in the favor of the experimental group low achievers in all the scopes of the test and the total degree. According to "d" and " η^2 " values , it was observed that the effect size of the educational computer games strategy was large on the low achievers' achievement in all the scopes of the test. Table (20 & 21).

This result showed the positive effect of educational computer games strategy on a very important sample; low achievers . Computer games created an interesting and attractive learning environment that stimulated students even low achievers towards participation and interaction using English language. This reflected on the low achievers' achievement in all the language skills .

4- Question (4) findings:

The fourth question inquired the following:

Are there statistically significant differences at ($\alpha \leq 0.05$) in the achievement level between the experimental group and the control one due to gender?

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

There are no statistically significant differences at ($\alpha \leq 0.05$) in achievement level between the experimental group and the control one due to gender.

To test this hypothesis, One Way ANOVA was used to measure the differences in achievement between the experimental groups (male and female) and the control groups (male and female) in the post-test. Table (22) showed that "f " computed value is larger than "f " table value . This meant that there were differences of statistical significance in the students' total achievement including all the language skills in favor of the experimental group of both genders.

"Scheffe' Post-Test" test was used to find out the direction of the differences among the four groups. The results indicated that there are significant differences in the students' total achievement including all the language skills in favor of the experimental group of both sexes. But, the differences are about to direct to be in favor of the female experimental group in all the five scopes (listening, speaking, reading, writing and word and structure) even though, they don't promote to be very significant. It should be mentioned that the differences between sexes are clear in the mean in favor of the female experimental group. See table (23, 24, 25, 26).

The results of One Way ANOVA and "Scheffe' Post-Test" test were very significant as they indicated the great effect of games strategy on students' achievement in all scopes in favor of the experimental groups in both sexes. This may be due to the fact that both male and female students were exposed to the similar social and educational environment.. This indicated the positive effect of computer games on both sexes' achievement. In addition, " Scheffe' Post-Test show that the differences are about to direct to be in favor of the female experimental group even though, they don't promote to be a very significant. It should be mentioned that the differences between sexes are clear in the mean in favor of the female experimental group. This may spring from the female nature being more interested and concentrating.

On the other hand, the fourth hypothesis represented a challenge for the effect of the computerized game program on both sexes. First, for female students who used to get higher achievement than male students as they more interested and concentrating. This result agreed with Harb (2007), which revealed that there are statistically significant differences in students' achievement in favor of female students.

Second, for male students who are fond of playing computer games and got interest when dealing with it, since Eow et.al (2009) revealed in their survey that playing computer games seemed to be more stereotypically boy's activity with 91.3 percent of the boys engaged in

computer games compared to 54.1 percent among the girls and they spent an average of 8.47 hours per week playing computer games.

As a researcher, the fourth result came with good news and came to prove the effectiveness of the computer games with both sexes specially male group. This result agreed with the results of Qulbein (2004), Abdo (1993) which revealed that there was no significant difference between male and female students in their achievement in the experimental group.

Finally, it can be deduced that whenever you meet student's needs and interests as a teacher, you will get satisfied outcomes from them. In other words, the development that the male students recorded in their achievement may spring from the male nature being more interested and excited with playing computer games.

5.3 Conclusion

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

1. Educational computer games strategy had superiority over the traditional method in teaching English language.
2. Educational computer games add variety to the rang of learning situations.
3. Educational computer games provided students with a better learning environment which reflected on their achievement of English language.
4. Educational computer games increased pupil-pupil communication which provides fluency practice and reduce the domination of the class by the teacher.
5. Educational computer games stimulated students towards an independent practice of English language instead of direct instruction.
6. Educational computer games developed the cooperative learning within the same group and competition with other groups.
7. Through educational computer games the students played several roles as thinkers, problem solvers, observers ,and researchers. These roles helped them acquire and employ English language in different situations more easily.
8. Educational computer games strategy changed the pace of a lesson and help to keep pupils' motivation.
9. Educational computer games encouraged learners to participate; shy learners can be motivated to interact.

10. Educational computer games provided students with enjoyment, pleasure, enthusiasm and variation which were significant enough to affect the students' achievement positively.

5.4 Pedagogical Implications

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

- 1- Teachers should be aware of the importance of educational computer games in developing students' achievement in all skills as the traditional method in teaching and learning is less effective.
- 2- Using educational computer games enable students to develop their attitudes and motivation towards learning in general and learning skills in particular.
- 3- Using educational computer games enables students with disabilities overcome their disability.
- 4- Computerized instruction and games' rules motivate students to interact with computer easily, thus, teachers should encourage students to learn via computers.
- 5- Low-achievers feel relaxed and motivated when using computer games, so teachers should include suitable activities which fits their ability.
- 6- Educational computer games provides students with immediate feedback and different types of reinforcement.
- 7- Using educational computer games in the learning process encourages students to be more co-operative and active when doing an activity.
- 8- Educational computer games can help to improve attention span, concentration, memory, listening, speaking, reading and writing skills.
- 9- By using educational computer games pupils are encouraged to participate; shy learners can be motivated to interact.
- 10- Educational computer games increase pupil- pupil communication which provides fluency practice and reduces the domination of the class by the teacher.
- 11- Educational computer games help to create a fun atmosphere and reduce the distance between teacher and pupils.

5.5 Recommendations

In the light of results of the study, the following recommendations are offered:

Curriculum designers and decision makers are recommended

- To enrich the Palestinian curriculum with different educational computer games that tackle the different skills of English language .
- To increase English language periods to help the teachers concentrate on learning quality.
- To supply schools with necessary materials for employing educational computer games strategy.

Supervisors are recommended:

- To prepare and distribute instructional materials that increase teachers' awareness of educational computer games strategy significance and the necessity of using this strategy in teaching English specially with young learners.
- To emphasize the fact that educational computer games should not be considered as marginal activities but, a strategy that should be used in different phases of the lesson.
- To conduct training courses that help teachers enhance their competencies of implementing the educational computer games strategy in their classes.
- To conduct workshops that aim at familiarizing teachers with different language games program.

English language teachers are recommended:

- To shift from the traditional teaching methods to communicative approach that based on the students' real involvement in the teaching learning process.
- To use educational computer games strategy to create an appropriate learning environment.
- To enrich the curriculum with relevant educational computer games that enhance students' use of English inside and outside school.
- To consider students' individual differences and learning styles in selecting the educational computer games.
- To help students use English language in "life-like" situations.
- To adopt modern techniques that enhance students' participation and interaction.
- To change their role from instructors who dominate the class into educators whose role is to help, guide and support the students to acquire language.

5.6 Recommendations for Further Studies

Education in Palestine is still in need for a lot of researches that touch all the inputs of the educational system. These inputs represented in ; the strategies, the teacher, the students, the curriculum, the administration and the local community. The researcher suggests the following titles for further studies.

1. The effect of educational computer games on developing students' critical thinking.
2. The efficiency of computerized games on developing students' Listening and speaking skills of English language.
3. The use of social network in educational computer-game based foreign language learning.
4. The effect of educational computer games on developing literacy activities.
5. Integrating video-capture virtual reality technology into a physically interactive learning environment for English learning.
6. The effect of educational computer games on developing the student's vocabulary retention.
7. The effect of educational computer games on developing cognitive skills.
8. The effect of educational computer games on affective and motor development.
9. Integrating educational computer games into the writing classroom
10. The effect of educational computer games on students' attitudes toward English language learning.
11. The effect of educational computer games on the basic academic skills of English language.

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Appendix (A)
Tools of the Study

Appendix (A.1)

The general objectives of the content (1-2-3-4)

Listening:

- 1- Identify the participants.
- 2- Respond to instructions to do some thing.
- 3- Extract key information for note taking.
- 4- Differentiate between similar sounds.

Speaking:

- 1- Articulate sounds in connected speech.
- 2- Engage in role play authentic situations.
- 3- Recite song and rhymes individually and chorally.

Reading:

- 1- scan text for specific information (i.e. word reference)
- 2- Skim text for the main idea.
- 3- Read and order events.
- 4- Answer factual, inferential, questions.

Writing:

- 1- Answer Wh. questions.
- 2- Use capital letters and punctuation correctly.
- 3- Arrange scrambled letters into words.
- 4- Arrange scrambled words into sentences.

Structure & language:

- 1- Describe past actions using past simple.
- 2- Describe recent actions using present.
- 3- Seek information using (Yes/No) questions

Vocabulary:

- 1- Complete sentences by supplying the missing words.
- 2- Complete sentences by choosing words.
- 3- Classify words under certain topic.

Appendix (A.1)
The content analysis

The content analysis

Unit	Aims	Structures	Vocabularies	Reading Skill	Listening skill	Speaking skill	Writing skill
Unit one	<ul style="list-style-type: none"> - listen to and read a dialogue - Get to know people Talk about countries and nationality. - Listen for information Roleplay. - Write about yourself. Spelling country words. 	<ul style="list-style-type: none"> - Getting to know some one - Country/ nationality 	<ul style="list-style-type: none"> Welcome – Parents Jordanian – Egyptian Australian Canadian Country 	<ul style="list-style-type: none"> - Read and answer. - Read and complete. - Practice dialogue. 	<ul style="list-style-type: none"> - Listen and answer. - listen and complete 	<ul style="list-style-type: none"> - Read and act out. 	<ul style="list-style-type: none"> - Complete and write. - Write about you. - Choose and write. - Write the names of the countries. - Write the names under the map.
Unit two	<ul style="list-style-type: none"> - Read a short piece of Prose. - Review of present simple; past simple. - listening for gist; guided speech; pronunciation /r/ - Use capital letters and full stops. 	<ul style="list-style-type: none"> - Present simple - Past simple. 	<ul style="list-style-type: none"> Showed – building Tower of London Village – camp Museum town 	<ul style="list-style-type: none"> - Read and answer 	<ul style="list-style-type: none"> - listen and answer - listen and complete 	<ul style="list-style-type: none"> Talk about where you live 	<ul style="list-style-type: none"> - Write correctly "Punctuation capital letter, full stop" . - Write about your city, town, village --- - Order and copy.

Unit	Aims	Structures	Vocabularies	Reading Skill	Listening skill	Speaking skill	Writing skill
Unit three	<ul style="list-style-type: none"> - Study a timetable. - Revise time. Using 5, 10, 15, 20 and 25 past/to. - Listen for information; say a jazz chant - Revise alphabet and alphabetical order. 	<ul style="list-style-type: none"> - Telling time (5/10/20/25 minutes past/ to). 	<ul style="list-style-type: none"> Assembly – break – school subjects – numbers – ordinal numbers – past – to. 	<ul style="list-style-type: none"> - Read and answer a timetable. 	<ul style="list-style-type: none"> - Listen and answer. - Listen and repeat. 	<ul style="list-style-type: none"> Ask and answer 	<ul style="list-style-type: none"> - Make words - Write the letters in alphabetical order. - Complete - answer the questions. - write your timetable.
Unit four	<ul style="list-style-type: none"> - Following a narrative. Reading a story. - Review adverbs of manner. - Listen to sequence. Retell a story. - Write guided sentences. Dictation exercise. 	<ul style="list-style-type: none"> - Adverbs of manner - Ordinals 	<ul style="list-style-type: none"> Hare – tortoise stopped – fell asleep – laughed – race – tired first – last. Adverbs:- Loudly - slowly quickly - carefully neatly - quietly. 	<ul style="list-style-type: none"> - Read and answer - Read and order. 	<ul style="list-style-type: none"> - listen and answer. - listen and number. 	<ul style="list-style-type: none"> - look and Say 	<ul style="list-style-type: none"> - Order and write. - Supply the missing word. - Write sentences.

Appendix (A.3)

Structured table of Test Specification

Bloom Level Skill weight	Knowledge	Comprehension	Application	Thinking Skills	Total
Listening 12.5%		$\frac{60 \times 50 \times 12.5}{100 \times 100} = 3.75 \text{ Q.s}$ (3 Q.s) $(60^3) + 60 = 3 \text{ Pts}$	$\frac{60 \times 50 \times 12.5}{100 \times 100} = 3.75 \text{ Q.s}$ (4 Q.s) $(60^4) + 60 = 4 \text{ Pts}$		7Q.s 7Pts
Speaking 12.5%		$\frac{60 \times 50 \times 12.5}{100 \times 100} = 3.75 \text{ Q.s}$ (4 Q.s) $(60^4) + 60 = 4 \text{ Pts}$	$\frac{60 \times 50 \times 12.5}{100 \times 100} = 3.75 \text{ Q.s}$ (4 Q.s) $(60^4) + 60 = 4 \text{ Pts}$		8 Q.s 8Pts
Reading 25%	$\frac{60 \times 20 \times 25}{100 \times 100} = 3 \text{ Q.s}$ (2Qs) $(60^2) + 60 = 2 \text{ Pts}$	$\frac{60 \times 50 \times 25}{100 \times 100} = 7.5 \text{ Qs}$ (8 Q.s) $(60^8) + 60 = 8 \text{ Pts}$		$\frac{60 \times 30 \times 25}{100 \times 100} = 4.5 \text{ Qs}$ (5 Q.s) $(60^5) + 60 = 5 \text{ Pts}$	15 Q.s 15Pts
Writing 25%	$\frac{60 \times 30 \times 25}{100 \times 100} = 4.5 \text{ Qs}$ (4 Q.s) $(60^5) + 60 = 5 \text{ Pts}$		$\frac{60 \times 50 \times 25}{100 \times 100} = 7.5 \text{ Qs}$ (4Q.s) $(60^8) + 60 = 8 \text{ Pts}$	$\frac{60 \times 20 \times 25}{100 \times 100} = 3 \text{ Qs}$ (2Q.s) $(60^2) + 60 = 2 \text{ Pts}$	10 Q.s 15Pts
Language 25%	$\frac{60 \times 30 \times 25}{100 \times 100} = 4.5 \text{ Qs}$ (4 Q.s) $(60^4) + 60 = 4 \text{ Pts}$	$\frac{60 \times 20 \times 25}{100 \times 100} = 3 \text{ Qs}$ (4 Q.s) $(60^4) + 60 = 4 \text{ Pts}$	$\frac{60 \times 20 \times 25}{100 \times 100} = 3 \text{ Qs}$ (3 Q.s) $(60^3) + 60 = 3 \text{ Pts}$	$\frac{60 \times 30 \times 25}{100 \times 100} = 4.5 \text{ Qs}$ (4 Q.s) $(60^4) + 60 = 4 \text{ Pts}$	15 Q.s 15Pts
Total 100%	10 Q.s 11 Pts	19 Q.s 19Pts	15 Q.s 19Pts	11 Q.s 11Pts	55 Q.s 60Pts

1. The highlighted percentage refers to the estimated weight of each taxonomy in each skill according to its total weight in the content the analysis of the general objectives & the specialists' opinions.

2. The inner percentage within each cell is approximate.

3. Number of questions =

$$\frac{\text{Total number of questions} \times \text{The qualitative weight of a skill} \times \text{Percentage of blooms taxonomy of thinking}}{100 \times 100}$$

Structured table of test Specification

Bloom Level Skill weight	Knowledge	Comprehension	Application	Thinking Skills	Total	Relative weight of objectives	Items of test
Listening 12.5%		1	2		3	15%	7
Speaking 12.5%		1	1		2	10%	8
Reading 25%	1	4		1	6	30%	15
Writing 25%	2		2	1	5	25%	11
Language 25%	1	1	1	1	4	20%	15
Total 100%	4	8	6	3	20	100%	55

Achievement Test

Grade: Fifth Grade

Name:-----

_____/60

Class:-----

Time: 2 hours

Listening (7m)

1- Listen and number the pictures:- (4m)



2- Listen and Put () or (): (3m)

- (a) Ben is from England ()
- (b) Ben is ten years old ()
- (c) He has two sisters ()

Speaking (8m)

A) Complete the following dialogue:-(4m)

Old	-	Yes	-	England	-	Fine, thanks
------------	---	------------	---	----------------	---	---------------------

Omar: Good morning, Ben

Ben: Good morning, Omar.

Omar: How are you?

Ben: -----

Omar: Where are you from?

Ben: I'm from -----

Omar: Oh, you are English

How ----- are you?

Ben: I'm twelve

Omar: Do you have any brothers or sisters?

Ben: -----, I have one sister.

B) Match the following: (4m)

- 1- What is the capital of Palestine?
- 2- How many brothers do you have?
- 3- Do you live in Gaza?
- 4- Are you from England?

- () yes, I am. I'm English.
 - () No, I don't
 - () It's Jerusalem
 - () I have three
-

Reading (15m)

Read and answer:-

Omar and Rania talked about Palestine. Omar showed Rania a photo of Jerusalem. Jerusalem is a beautiful and famous city.

There are many holy places to visit. Al- Aqsa Mosque is a very important place for Muslims. Many tourists visit it in all seasons.

Then, Rania showed Omar the Tower of London. It's an old building. It's next to the River Thames.

A) Answer the following questions:-(2m)

1- Which country did Omar and Rania talk about?

2- What did Omar show Rania?

B) True or False: (3m)

- a) Omar showed Rania a photo of Rafah ().
- b) Jerusalem is a famous city ().
- c) Tourists visit Jerusalem in winter only ().

c) Complete: (2m)

1- The capital of Palestine is -----

2- The underlined pronoun "It" refers to -----

3- Rania showed Omar the -----

2) Puzzles: (2m)

a- A very important place for Muslims in Jerusalem is - - - - -

b- A famous building in London is - - - - -

3- Read and order the following story:(5m)

- The hare was tired and fell a sleep.
 - The tortoise finished the race. She was first.
 - The hare and the tortoise had a race.
 - The tortoise walked past the hare.
 - The hare ran quickly but the tortoise walked slowly.
-

Writing (15m)

1- Answer the following questions: (3m)

a) What's the time?



b) Where are you from?

c) Do you go to school on Friday?

2- Punctuate the following sentences:-(4m)

a) london is a big city in england.

b) ahmad and sami have never been to Bethlehem.

3- Put the following letters in alphabetical order:(2m)

a- c a g b -----

b- f g I d -----

4- Re- arrange the following sentences:(4m)

a- ran - quickly - hare - The

b- city - London - a - big - is

5- Think and write:(2m)

Think of two words begining with "S"

Word and structures (15 m)

1) Choose the correct answer:(4m)

- 1- I (am – is - are) a pupil.
- 2- yesterday. Amy (wants – wanted - want) to see Rania.
- 3- He (is – was - are) twelve years old
- 4- They (live – lives - lived) in Gaza.

2) Fill in the space using the following words:(4m)

(quickly- Jerusalem- finished- Canadian)

- 1- I'm from Canada. I'm -----
- 2- The Dome of the rock is in -----
- 3- The tortoise ----- the race. She was the first.
- 4- The hare is running -----

3) Correct the underlined mistakes:(3m)

- 1- Amy had a brother -----
- 2- Yesterday, Ali visit his uncle. -----
- 3- Omar is writing neat. -----

4) Odd one out:(4m)

- 1- seven ten fifth two
- 2- Math science Sunday arts
- 3- has talked wanted showed
- 4- quickly quietly neatly careful

Listening guide

1. Listen and number the pictures:

Once upon a time, the hare and the tortoise had a race

1. The hare ran quickly.
2. The hare was tired.
3. The hare fell a sleep.
4. The tortoise finished the race. She was first.

2. Listen and put (T) or (F) :

Ben is from England. He is twelve years old. He has one sister.

Her name is Amy.

Appendix (B)
Educational Computer Games Program

Unit 1
lesson 1

Word Building Game

Vocabulary Game

h i d e a p s m y r o l u t w f g n k c

Objective : Find as many words as you can . The more words you have the more points you get :

1- s ... e .

Unit 1

1 1

1 1

1 2

1 3

1 4

Unit 2

1 1

1 2

1 3

1 4

Unit 3

1 1

1 2

1 2

1 3

1 4

Unit 4

1 1

1 1

1 2

1 2

1 3

1 4

Start



Unit 1
lesson 1

Reading Game

0

10

Choose the correct Answer :-

1- Omar and Ben are ?

- sisters
- brothers
- friends
- daughters

Unit 1

1 1

1 1

1 2

1 3

1 4

Unit 2

1 1

1 1

1 2

1 3

1 4

Unit 3

1 1

1 2

1 2

1 2

1 3

1 4

Unit 4

1 1

1 1

1 2

1 2

1 3

1 4

Start

Unit 1
 Reading Games

The Winner Game

Unit 1	
L1	L1
L1	L2
L2	L3
L3	L4
Unit 2	
L1	L1
L2	L3
L3	L4
Unit 3	
L1	L1
L2	L2
L2	L2
L3	L3
L4	L4
Unit 4	
L1	L1
L1	L2
L2	L3
L3	L4
Start	

Objective : Choose the correct Answer :

"Omar and Ben became friends. Omar is at school. Ben is visiting the school. Ben is from England. He is twelve years old. He has one sister. Her name is Amy. She is ten years old. Ben's parents are working in Palestine. **They** are happy to meet each others at school and to be friends."

Question

Unit 1
 lesson 3

Filling the Gaps

Listening Game

Unit 1	
L1	L1
L1	L2
L2	L3
L3	L4
Unit 2	
L1	L1
L2	L3
L3	L4
Unit 3	
L1	L1
L2	L2
L2	L2
L3	L3
L4	L4
Unit 4	
L1	L1
L1	L2
L2	L3
L3	L4
Start	

Objective : Listen and complete :

fine ,thanks England Hello Tala two old Yes name from

ola : Hello ,

Tala :

Unit 1

lesson 2

Your Words " My Grammar Game "

Objective : Do as the following example using the words below :

Jordanian Egyptian Australian Canadian Palestinian English

I am from Palestine . iam **Palestinian** .

1- I am from Jordan . iam



a	b	c	d	e	f
g	h	i	j	k	l
m	n	o	p	q	r
s	t	u	v	w	x
y	z				

Unit 1	
11	11
11	12
12	13
13	14
Unit 2	
11	11
12	13
13	14
Unit 3	
11	11
12	12
12	12
13	13
14	14
Unit 4	
11	11
11	12
12	13
13	14
Start	

Unit 1

lesson 2

The Hidden words Game

Vocabulary Game

Objective : Find six hidden countries in the square below they may be vertical or horizontal :

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

Unit 1	
11	11
11	12
12	13
13	14
Unit 2	
11	11
12	13
13	14
Unit 3	
11	11
12	12
12	12
13	13
14	14
Unit 4	
11	11
11	12
12	13
13	14
Start	

Unit 1
lesson 2

Your Words " My Grammar Game "

Objective : Do as the following example using the words below :

Jordanian Egyptian Australian Canadian Palestinian English

I am from Palestine . I am Palestinian .

1- **I am from Jordan . I am**



a	b	c	d	e	f
g	h	i	j	k	l
m	n	o	p	q	r
s	t	u	v	w	x
y	z				

Unit 1	
11	11
11	12
12	13
13	14
Unit 2	
11	11
12	13
13	14
Unit 3	
11	11
12	12
12	12
13	13
14	14
Unit 4	
11	11
11	12
12	13
13	14
Start	

Unit 1
lesson 3

Filling the Gaps

Listening Game

Objective : Listen and complete :

fine ,thanks England Hello Tala two old Yes name from

ola : Hello ,

Tala :



Unit 1	
11	11
11	12
12	13
13	14
Unit 2	
11	11
12	13
13	14
Unit 3	
11	11
12	12
12	12
13	13
14	14
Unit 4	
11	11
11	12
12	13
13	14
Start	

Unit 1
lesson 3

Matching Game

Speaking Game

Objective : Match the true answer .

- | | |
|---|-----------------------------|
| 1- Good morning , Rania . | (....) I am from England . |
| 2- How are you ? | (....) I am ten . |
| 3- Where are you from ? | (....) Good by , Amy . |
| 4- How old are you ? | (....) Fine , thanks . |
| 5- Do you have brothers or sisters ? | (....) Good morning , Amy . |
| 6- Good by Rania . | (....) No , I do not . |



Unit 1	
11	11
11	12
12	13
13	14
Unit 2	
11	11
12	13
13	14
Unit 3	
11	11
12	12
12	12
13	13
14	14
Unit 4	
11	11
11	12
12	13
13	14
Start	

Unit 1
lesson 4

Sentence Building Game

Writing Game

Objective : Re-Order :

1- name _ My _ Ali _ is .

The Answer :



Unit 1	
11	11
11	12
12	13
13	14
Unit 2	
11	11
12	13
13	14
Unit 3	
11	11
12	12
12	12
13	13
14	14
Unit 4	
11	11
11	12
12	13
13	14
Start	

Unit 2
lesson 1

The Spy Code Game

Vocabulary Game

Objective : Try to break this code and find the verbs :

a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26

1- 22 , 9 , 19 , 9 , 20 , 5 , 4



Unit 1

11	11
11	12
12	13
13	14

Unit 2

11	11
12	13
13	14

Unit 3

11	11
12	12
12	12
13	13
14	14

Unit 4

11	11
11	12
12	13
13	14

Start

Unit 2
lesson 1

Weed - Read Game

Reading Game

*Objective : Read the passage individually , weed any extra word ,
There are ten extra words :*

" Omar and Rania talked speak about Palestine ,
Omar showed see Rania a photo of Jerusalem .
Jerusalem London is a beautiful city . It is has very
famous . There are many holy places to visit go .
Al Aqsa Mosque is a very important good place for
Muslims . Many tourists friend visit it .
Then , Rania showed Omar Ali the Tower of London .
It is an old building city . It is very famous big .
It is next to the River Thames .

Unit 1

11	11
11	12
12	13
13	14

Unit 2

11	11
12	13
13	14

Unit 3

11	11
12	12
12	12
13	13
14	14

Unit 4

11	11
11	12
12	13
13	14

Start

Unit 2
lesson 3

Filling the Gaps

Listening Game

museum famous visit city old buildings Tower tourists

Objective : listen and complete :

1- London is a big in England .

Unit 1	
L1	L1
L1	L2
L2	L3
L3	L4
Unit 2	
L1	L1
L2	L3
L3	L4
Unit 3	
L1	L1
L2	L2
L2	L2
L3	L3
L4	L4
Unit 4	
L1	L1
L1	L2
L2	L3
L3	L4
Start	

Unit 2
lesson 3

Talking about Ourselves

Speaking Game

Pupil - famous - Palestine - ten - sisters

Objective : Talk about your self :

1- I live in



Unit 1	
L1	L1
L1	L2
L2	L3
L3	L4
Unit 2	
L1	L1
L2	L3
L3	L4
Unit 3	
L1	L1
L2	L2
L2	L2
L3	L3
L4	L4
Unit 4	
L1	L1
L1	L2
L2	L3
L3	L4
Start	

Unit 3

Lesson 1

The Hidden Word Game

Vocabulary Game

Objective : Find seven hidden school subjects in the squares below they may be vertical or horizontal :

A	r	t	s	R	a	d	b	j	A
e	k	b	c	e	c	f	g	e	r
a	c	j	d	l	h	i	i	h	a
E	m	S	c	i	e	n	c	e	h
n	o	n	t	g	u	z	C	a	i
g	M	s	b	i	f	k	i	p	c
l	a	v	l	o	l	j	v	q	p
l	t	m	s	n	g	y	i	o	z
s	h	w	n	x	y	q	c	r	t
h	s	u	x	r	w	n	s	v	o

Unit 1	
11	11
11	12
12	13
13	14
Unit 2	
11	11
12	13
13	14
Unit 3	
11	11
12	12
12	12
13	13
14	14
Unit 4	
11	11
11	12
12	13
13	14
Start	

Unit 3

Lesson 1

The Winner Game

Reading Game

Rania School Timetable :

The Time	Saturday	Sunday	Monday
	Assembly		
	Arabic	English	Maths
	Science	Religion	Arts
	Break		
	Civics	Physical Education	Arabic
	End of School		

a- Rania starts school at :

8:00

7:45

8:30



Rania

Unit 1	
11	11
11	12
12	13
13	14
Unit 2	
11	11
12	13
13	14
Unit 3	
11	11
12	12
12	12
13	13
14	14
Unit 4	
11	11
11	12
12	13
13	14
Start	

Unit 3
lesson 2

Shot Rockets

Vocabulary Game

Objective : Try to shot the right answer :

1- fifteen



Unit 1

11	11
11	12
12	13
13	14

Unit 2

11	11
12	13
13	14

Unit 3

11	11
12	12
12	12
13	13
14	14

Unit 4

11	11
11	12
12	13
13	14

Start

Unit 3
lesson 4

Shot Rockets

Vocabulary Game

Objective : Try to shot the right answer :

1- twelfth



Unit 1

11	11
11	12
12	13
13	14

Unit 2

11	11
12	13
13	14

Unit 3

11	11
12	12
12	12
13	13
14	14

Unit 4

11	11
11	12
12	13
13	14

Start

Unit 3
lesson 2

Matching Scattered invisible Cards
Vocabulary Game

Objective : Look , remember then match the picture with its word :



Unit 1	
11	11
11	12
12	13
13	14
Unit 2	
11	11
12	13
13	14
Unit 3	
11	11
12	12
12	12
13	13
14	14
Unit 4	
11	11
11	12
12	13
13	14
Start	

Unit 3
lesson 2

Matching Scattered invisible Cards
Vocabulary Game

Objective : Look , remember then match the picture with its word :



two o'clock

Unit 1	
11	11
11	12
12	13
13	14
Unit 2	
11	11
12	13
13	14
Unit 3	
11	11
12	12
12	12
13	13
14	14
Unit 4	
11	11
11	12
12	13
13	14
Start	

Unit 3
lesson 2

Making Time

Grammar Game

Objective : Pass the hands of the clock :
Start from the short hand .



1- It is half past two .

Unit 1

1 1

1 2

2 3

3 4

Unit 2

1 1

2 3

3 4

Unit 3

1 1

2 2

2 2

3 3

4 4

Unit 4

1 1

1 2

2 3

3 4

Start

Unit 3
lesson 3

The Clock

Speaking Game

Objective : Ask and answer a bout the time :

1- What is the time .. ?? .

It is :

" ten o'clock - eleven o'clock - twelve o'clock"



Unit 1

1 1

1 2

2 3

3 4

Unit 2

1 1

2 3

3 4

Unit 3

1 1

2 2

2 2

3 3

4 4

Unit 4

1 1

1 2

2 3

3 4

Start

Unit 3
lesson 3

The Same or Different

Listening Game

Objective : Listen and click "same" or "different" :

1-

Same



Different

Unit 1

- 1 1
- 1 2
- 2 3
- 3 4

Unit 2

- 1 1
- 2 3
- 3 4

Unit 3

- 1 1
- 2 2
- 2 2
- 3 3
- 4 4

Unit 4

- 1 1
- 1 2
- 2 3
- 3 4

Start

Unit 3
lesson 4

Get it ???

Writing Game

Objective : Put the letters in alphabetical order :

1-



The Answer :

Unit 1

- 1 1
- 1 2
- 2 3
- 3 4

Unit 2

- 1 1
- 2 3
- 3 4

Unit 3

- 1 1
- 2 2
- 2 2
- 3 3
- 4 4

Unit 4

- 1 1
- 1 2
- 2 3
- 3 4

Start

Unit 3
lesson 4

The Scattered Letters Game

Writing Game

Objective : Work out the following puzzles and find the words :

a b c d e f g h i j k l m n o p q r s t u v w x y z

1- Word starts with the 4th letter of the alphabet

o g d



Unit 1

1 1 1 1
1 1 1 2
1 2 1 3
1 3 1 4

Unit 2

1 1 1 1
1 2 1 3
1 3 1 4

Unit 3

1 1 1 1
1 2 1 2
1 2 1 2
1 3 1 3
1 4 1 4

Unit 4

1 1 1 1
1 1 1 2
1 2 1 3
1 3 1 4

Start

Unit 4
lesson 1

The Scattered letters Game

Vocabulary Game

Objective : Work out the following puzzles and find the words :

1- It runs



u i c q k l y

Unit 1

1 1 1 1
1 1 1 2
1 2 1 3
1 3 1 4

Unit 2

1 1 1 1
1 2 1 3
1 3 1 4

Unit 3

1 1 1 1
1 2 1 2
1 2 1 2
1 3 1 3
1 4 1 4

Unit 4

1 1 1 1
1 1 1 2
1 2 1 3
1 3 1 4

Start

Unit 4

lesson 1

The Winner Game

Reading Game

Objective : Read the passage , then choose the correct answer

"Last week the hare and the tortoise had a race. The hare ran quickly but the tortoise walked slowly. The animals laughed at her. The hare was tired. He sat down and fell asleep. The tortoise walked past the hare. She was the first. The hare woke up. He ran quickly but he was last. The animals laughed at the hare."



Unit 1

1 1
1 2
1 3
1 4

Unit 2

1 1
1 2
1 3
1 4

Unit 3

1 1
1 2
1 2
1 3
1 3
1 4
1 4

Unit 4

1 1
1 1
1 2
1 2
1 3
1 3
1 4
1 4

Start



Choose the correct Answer :

0

10

1- What are the main characters of the story ?

- lion , rabbit
- tiger , snake
- hare , tortoise

Unit 1

1 1
1 1
1 2
1 2
1 3
1 3
1 4
1 4

Unit 2

1 1
1 1
1 2
1 2
1 3
1 3
1 4
1 4

Unit 3

1 1
1 1
1 2
1 2
1 3
1 3
1 4
1 4

Unit 4

1 1
1 1
1 2
1 2
1 3
1 3
1 4
1 4

Start

Unit 4
lesson 2

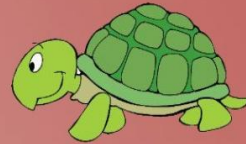
Word and Picture

Vocabulary Game

Objective : Look at the picture and choose the word related :

2 - The tortoise is walking

" loudly - slowly - quietly "



Unit 1	
11	11
11	12
12	13
13	14
Unit 2	
11	11
12	13
13	14
Unit 3	
11	11
12	12
12	12
13	13
14	14
Unit 4	
11	11
11	12
12	13
13	14
Start	

Unit 4
lesson 2

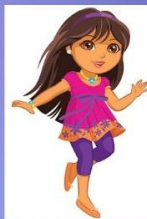
Your Words " My Grammar Game "

Objective : Do as the following example using the words below :

loudly slowly quickly carefully neatly quietly

He is singing ...**loudly**.....

1- She is walking



a	b	c	d	e	f
g	h	i	j	k	l
m	n	o	p	q	r
s	t	u	v	w	x
y	z				

Unit 1	
11	11
11	12
12	13
13	14
Unit 2	
11	11
12	13
13	14
Unit 3	
11	11
12	12
12	12
13	13
14	14
Unit 4	
11	11
11	12
12	13
13	14
Start	

Unit 4
lesson 3

The Same or Different

Listening Game

Objective : Listen and click "same" or "different" :

1- **Same**



Different .

Unit 1	
L1	L1
L1	L2
L2	L3
L3	L4
Unit 2	
L1	L1
L2	L3
L3	L4
Unit 3	
L1	L1
L2	L2
L2	L2
L3	L3
L4	L4
Unit 4	
L1	L1
L1	L2
L2	L3
L3	L4
Start	

Unit 4
lesson 3

Who am I ..??

Speaking Game

Objective : Click on the correct picture :



The hare



The tortoise



The animals

1- I walk slowly



Unit 1	
L1	L1
L1	L2
L2	L3
L3	L4
Unit 2	
L1	L1
L2	L3
L3	L4
Unit 3	
L1	L1
L2	L2
L2	L2
L3	L3
L4	L4
Unit 4	
L1	L1
L1	L2
L2	L3
L3	L4
Start	

Adobe Flash Player 10
File View Control Help

Unit 4
lesson 4

Sentence Building Game

Writing Game

Unit 1

L1 L1
L1 L2
L2 L3
L3 L4

Unit 2

L1 L1
L2 L3
L3 L4

Unit 3

L1 L1
L2 L2
L2 L2
L3 L3
L4 L4

Unit 4


L1 L1
L1 L2
L2 L3
L3 L4

Start

Objective : Re-Order :

1- ran _ quickly _ hare _ The

The Answer :



05:02
33/01/21

Appendix (C)
Educational Computer Games Index

Vocabulary Games

1.1 Word Building Game

Objective: To recall words relevant to " New Friends" topic.

Group size: Eight students in each group, every pair has a computer.

Time: 5-10 minutes.

Lesson phase: Pre-requisite.

Language focus: Vocabulary.

Unit 1 Lesson 1

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

h i d e a p s m y r o l u t w f g n k c

Possible answers:

See- happy – holiday – summer – time – wonderful – friends – England – walk_school

1.2 The Hidden Words Game

Objective: To recall some countries.

To recall school subjects.

Group size: Eight students in each group, every pair has a computer.

Time: 5-10 minutes.

Lesson phase: Pre-requisite.

Language focus: Vocabulary.

Unit 1 Lesson 2**Find six hidden countries in the square below, they may be vertical or horizontal**

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

The Answers:

Australia, Canada, England, Egypt, Jordan, Palestine.

Unit 3 Lesson 1**Find seven hidden school subjects in the squares below, they may be vertical or horizontal**

A	r	t	S	R	a	d	b	j	A
E	k	b	C	e	c	f	g	e	R
A	c	j	D	l	h	I	i	h	A
E	m	S	C	i	e	n	c	e	B
N	o	n	T	g	u	z	C	a	I
G	M	s	B	i	f	k	i	p	C
L	a	v	L	o	l	j	v	q	P
I	t	m	S	n	g	y	i	o	Z
S	h	w	N	x	y	q	c	r	T
H	s	u	X	r	w	n	s	v	o

The answers: Arts, Science, English, Maths, Religion, Civics, Arabic.

1.3 The Spy Code Game:

Objective: To recall the past simple of some verbs.

Group size: Eight students in each group, every pair has a computer.

Time: 5-10 minutes.

Lesson phase: Pre-requisite.

Language focus: Vocabulary and structure.

Unit 2 Lesson 1

Try to break this code and find the verbs:

a b c d d e f g h i g k l m n o p q r s t u v w x y z

- 1- 22, 9, 19, 9, 20, 5, 4 =
- 2- 23, 5, 14, 20 =
- 3- 23, 1, 14, 20, 5, 4 =
- 4- 20, 1, 12, 11, 5, 4 =
- 5- 19, 8, 15, 23, 5, 4 =
- 6- 4, 9, 4 =

The answers:

Visited, went, wanted, talked, showed, did.

1.4 Shot Rockets

Objective: To recall the numbers.

To recall the ordinal numbers.

Group size: Eight students in each group, every pair has a computer.

Time: 5-10 minutes.

Lesson phase: Pre-requisite.

Language focus: Vocabulary.

Unit 3 Lesson 2

Try to shot the right answer by your rocket:

- 1- Fifteen(15- 40- 13)
- 2- Twenty.....(12- 20- 22)
- 3- Thirty.....(23- 13- 30)
- 4- Forty five....(15- 45- 44)
- 5- Fifty five(55- 15- 25)
- 6- Twenty seven(13- 17- 27).

The answers:

15, 20, 30, 45,55, 27.

Unit 3 Lesson 2

Try to shot the right answer by your rocket:

- 1- Twelfth.....(12- 20- 2)
- 2- Second.....(3- 2- 4)
- 3- Third.....(4- 2- 3)
- 4- Sixth.....(60- 12- 6)
- 5- Eleventh.....(11- 12- 6)
- 6- First.....(2- 1- 5)

The answers:

12, 2, 3, 6, 11, 1.

1.5 Matching Scattered Invisible cards

Objective: To recall the time of some clocks.

Group size: Eight students in each group, every pair has a computer. They work individually in turn.

Time: 5-10 minutes.

Lesson phase: Pre-requisite.

Language focus: Vocabulary.

Unit 3 Lesson 2

Look, remember, then match the picture with its word:



Two o'clock

Half past

Quarter past

1.6 The scattered letters Game

Objective: To recall some adverbs and verbs.

Group size: Eight students in each group, every pair has a computer. Time: 5-10 minutes.

Lesson phase: Pre-requisite.

Language focus: Vocabulary and structure.

Unit 4 Lesson 1

Work out the following puzzles and look at the pictures to find the words.

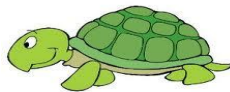
"a b c d e f g h I j k l m n o p q r s t u v w x y q"

1- It runs -----



uicqkly

2- It walks -----



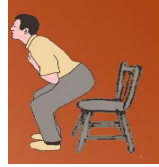
wlsylo

3- He is -----



treid

4- He ----- down



sits

5- He -----



alwks

6- He -----



unrs

The answers:

Quickly, slowly, tired, sits, walks,

1.7 Word and picture

Objective: To recall some adverbs and verbs.

Group size: Eight students in each group, every pair has a computer. Time: 5-10 minutes.

Lesson phase: Pre-requisite.

Language focus: Vocabulary and structure.

Unit4 Lesson 2

Look at the picture and choose the word related:

- 1- The hare is running
(quickly- slowly- carefully).



- 2- The tortoise is walking
(loudly- slowly- quietly).



- 3- Rania is walking
(quickly- slowly- carefully).



4- Omar is singing
(quietly- loudly- carefully).



5- She is writing her home work
(neatly- quietly- quickly).



6- He is speaking
(loudly- quietly- slowly).



The answers: Quickly, slowly, carefully, loudly, neatly, quietly.

2- Structures Games

2.1 Your words "My Grammar Game"

Objective: To use nationalities of some countries.

Group size: Eight students in each group, every pair has a computer.

Time: 10- 15 minutes.

Lesson phase: Controlled practice.

Language focus: Structures.

Unit 1 Lesson 2

Do as the following example using the words below.

Jordanian	Egyptian	Australia	Canadian	Palestinian	English
-----------	----------	-----------	----------	-------------	---------

I'm from Palestine. I'm Palestinian

1. I'm from Jordan. I'm -----
2. I'm from Australia. I'm -----
3. I'm from Canada. I'm -----
4. I'm from England. I'm -----
5. I'm from Egypt. I'm -----

a	b	c	d	e	f
g	h	i	j	k	l
m	n	o	p	q	r
s	t	u	v	w	x
y	z				

The answers:

Jordanian, Australian, Canadian, English, Egyptian.

Unit 4 lesson 2

Look at the pictures and do as the following example using the words below:

Loudly slowly quickly carefully neatly quietly

He is singing loudly

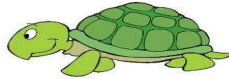
1. She is walking -----



2. He is writing -----



3. It is walking -----



4. It is running -----



5. He is speaking -----



a	b	c	d	e	f
g	h	i	j	k	l
m	n	o	p	q	r
s	t	u	v	w	x
y	z				

The answers:

Carefully, neatly, slowly, quickly, quietly.

2.2 Double or Quits Game

Objective: To use present and past simple tense.

Group size: Eight students in each group, every pair has a computer.

Time: 10- 15 minutes.

Lesson phase: Controlled practice – summative evaluation.

Language focus: Structures.

Unit 2 Lesson 2

Put True or False:

- 1- Samy has a sister _____ " T - F"
- 2- They lived in London _____ " T - F"
- 3- His name was Ali _____ " T - F"
- 4- Yesterday I visited my uncle's house _____ " T - F"
- 5- Last week, I go to London _____ " T - F"
- 6- Amy had a brother _____ " T - F"
- 7- I lived in London _____ " T - F"
- 8- I lived in London _____ " T - F"
- 9- My name is Mona _____ " T - F"
- 10- Last week Amy want to see Rania _____ " T - F"

The answers:

1. T
2. F
3. F
4. T
5. F
6. F
7. F
8. F
9. T
10. F

2.3 Making Time

Objective: To use clock's hands to tell the time.

Group size: Eight students in each group, every pair has a computer.

Time: 10- 15 minutes.

Lesson phase: Controlled practice – summative evaluation.

Language focus: Structures.

Unit3 Lesson 2

Pass the hands of the clock

- It's half past two.
- It's quarter past ten.
- It's seven o'clock.
- It's half past six.
- It's quarter past four.
- It's twenty to ten.



3- Reading Games

3.1 The Winner Game

Objective: To scan a text for specific information.

To scan a time table for specific information.

Group size: Eight students in each group, every pair has a computer. Every one Work individually in turn.

Time: 10- 15 minutes.

Lesson phase: Controlled practice " While reading "

Language focus: Silent reading.

Unit 1 Lesson 1

Read the passage, then choose the correct answer:

"Omar and Ben became friends. Omar is at school. Ben is visiting the school. Ben is from England. He is twelve years old. He has one sister. Her name is Amy. She is ten years old. Ben's parents are working in Palestine.

They are happy to meet each other at school and to be friends.

The questions:

1- Omar and Ben are - - - - -

a) sister b) brothers c) friends d) daughters

2- Ben is from - - - - -

a) England b) Palestine c) Jordan d) Egypt

3- How old is Ben? He is

a) ten b) nine c) seven d) twelve

4- How many sisters does he have?

a) six b) two c) three d) one

5- What's the name of Ben's sister? Here name is - - - - -

a) Amal b) Arwa c) Amy d) Amany

6- Ben's Parents are working in - - - - -

a) England b) Australia c) Palestine d) Egypt

7- How old is Amy? She is

a) nine b) ten c) eleven d) twelve.

8- Ben is - - - - -

a) Palestinian b) English c) Egyptian d) Jordanian

9- The friends met each other at - - - - -

a) market b) school c) home d) cinema

10- The under lined pronoun refers to - - - - -

a) Ben-Omar b) parent's c) Amy d) Omar

The answers:

1- friends

2- England

3- Twelve

4- One

5- Amy

6- Palestine

7- Ten

8- English

9- School

10-Ben- Omar.

Unit 4 Lesson 1

Read the passage, then choose the correct answer:

"Last week the hare and the tortoise had a race. The hare ran quickly but the tortoise walked slowly. The animals laughed at her. The hare was tired. He sat down and fell asleep. The tortoise walked past the hare. She was the first. The hare woke up. He ran quickly but he was last. The animals laughed at the hare."

The questions:

1- What are the main characters of the story.

a- lion, rabbit

b- tiger, snake

c- hare, tortoise

2- What did the hare and the tortoise do last week?

a- ate

b- had a race

c- sleep

3- Who ran quickly?

a- The hare

b- The tortoise

c- the animals.

4- Who walked slowly?

- a- The hare b- The tortoise c- the animals

5- Who won the race?

- a- The hare b- The tortoise c- the animals

6- Who was the last in the race?

- a- The hare b- The tortoise c- the animal

7- Who laughed at the hare at the end?

- a- The hare b- the tortoise c- the animals.

8- Who is the most clever animal?

- a- The hare b- the tortoise c- the animals

9- What is the opposite of woke up x - - - - -

- a- fell asleep b- laughed c- walked

10- What is the opposite of quickly x - - - - -

- a- neatly b- quietly c- slowly







The answers:

- 1- Hare, tortoise
- 2- Had a race
- 3- The hare
- 4- The tortoise
- 5- The tortoise
- 6- The hare
- 7- The animals
- 8- The tortoise
- 9- Fell asleep
- 10- Slowly

Unit 3 Lesson 1

Read Rania's school timetable. Choose the right answer:

Rania's school Timetable

	Saturday	Sunday	Monday
	ASSEMBLY		
	Arabic	English	Maths
	Science	Religion	Arts
	BREAK		
	Civics	Physical Education	Arabic
	End of School		

1- Rania starts school at - - - - -

- 1- 8:00 2- 7:45 3- 8:50

2- The first lesson on Sunday is

- 1- English 2- Math 3- Arts

3- The break is - - - - - minutes long

- 1- 20 2- 45 3- 10

4- Rania finishes school at - - - - -

- 1- 12:00 2- 11:00 3- 10:00

5- The morning assembly is - - - - - minutes long.

- 1- twenty 2- ten 3- fifteen

6- The second lesson on Monday is - - - - -

1- English 2- Arts 3- Civics

7- The third lesson on Saturday is - - - - -

1- Physical Education 2- Arts 3- Civics

8- Rania starts with Arabic lesson on - - - - -

1- Saturday 2- Sunday 3- Monday.

9- Rania has physical Education on - - - - -

1- Saturday 2- Sunday 3- Monday

10- Rania has Religion lesson on - - - - -

1- Saturday 2- Sunday 3- Monday.

The answers

1- 7:45

2- English

3- 45

4- 11:00

5- Fifteen

6- Arts

7- Civics

8- Saturday

9- Sunday

10-Sunday

3.2 Weed- Read Game

Objective: Extracting and weeding extra words from a reading text.

Group size: Eight students in each group, every pair has a computer. Every one Work individually in turn.

Time: 10- 15 minutes.

Lesson phase: Controlled practice

Language focus: Reading.

Unit 2 Lesson 1

Read the passage individually, weed any extra words then exchange ideas within your group. There are ten extra words.

"Omar and Rania talked speak about Palestine. Omar showed see Rania a photo of Jerusalem. Jerusalem London is a beautiful city. It is has very famous. There are many holy places to visit go. Al Aqsa Mosque is a very important good place for Muslims. Many tourists friends visit it. Then, Rania showed Omar Ali the Tower of London. It's an old building city. It's very famous big. It's next to the River Thames".

The answers

Speak, see, London, has, go, good, friends, Ali, city, big.

4- Listening Games

4.1 Filling the gaps

Objective: listen and fill in the gaps.

Group size: Eight students in each group, every pair has a computer. Every one works individually in turn.

Time: 10- 15 minutes.

Lesson phase: Controlled practice

Language focus: Listening.

Unit 1 Lesson 3

Listen and complete:

Fine, thank – England – Hello – Ahmad – two – old – yes - from
--

Ali: Hello

Ahmad: _____

Ali: How are you?

Ahmad: _____

Ali: What's your _____?

Ahmad: My name's _____

Ali: How _____ are you?

Ahmad: I'm ten.

Ali: Where are you _____?

Ahmad: I'm from _____

Ali: Do you have brothers or sisters?

Ahmad: _____, I have one brother and _____ sisters.

The answers:

Hello, fine thanks, name, Tala, old, from, England, yes, two.

Unit 2 Lesson 3

Listen and complete:

Museums – famous – visit – city – old – buildings – Tower – tourists

- 1- London is a big _____ in England.
- 2- There are many _____ and beautiful _____.
- 3- The _____ of London is very _____.
- 4- Many _____ visit London.
- 5- It has many beautiful _____.
- 6- I hope to _____ London.

The answers

- 1-city
- 2-old, buildings
- 3-Tower, famous
- 4-tourists
- 5-museum
- 6-visit

4.2 The Same or Different

Objective: To differentiate between two similar utterances through listening.

Group size: Eight students in each group, every pair has a computer. Every one work individually in turn.

Time: 10- 15 minutes.

Lesson phase: Controlled practice

Language focus: Listening.

Unit 3 Lesson 3

Listen and click "same" or "different"

Same

Different

- 1- a – Omar goes to school at seven o'clock
Omar goes to school at seven o'clock

Same

- 2- Rania has her lunch at two o'clock
Rania has her lunch at three o'clock

Different

- 3- I go to bed at nine o'clock
I go to bed at eight o'clock

Different

- 4- I do my home work at half past two o'clock
I do my home work at half past two o'clock

Same

- 5- I visit my uncle at quarter past five
I visit my uncle at quarter past five

Same

- 6- Amy visit London at twenty-five to eleven o'clock
Amy visit London at twenty to eleven o'clock

Different

- 7- It's forty five to nine.
It's forty five to nine

Same

- 8- It's three o'clock
It's two o'clock

Different

Unit 4 Lesson 3

Listen and click "same" or "different"

1- A- The hare ran quickly

B- The hare ran quickly

Same

2- A- The tortoise walked slowly

B- The hare walked slowly

Different

3- A- The hare went to sleep.

B- The hare went to sleep

Same

4- A- The hare was the last

B- The tortoise was the last

Different

5- A- The animals laughed at the hare

B- The animals laughed at the hare

Same

6- A- The tortoise won the race

B- The tortoise won the prize

Different

7- A- The hare sat and sleep

B- The hare sat and sleep

Same

8- A- The hare gets tired

B- The tortoise gets tired

Different

5- Speaking Games

1.5 Matching Game

Objective: To practice a dialogue

Group size: Eight students in each group, every pair has a computer. Students work in pairs.

Time: 10- 15 minutes.

Lesson phase: Controlled practice

Language focus: Speaking.

Unit 1 Lesson 3

Match

- 1- Good morning, Rania
- 2- How are you?
- 3- Where are you from?
- 4- How old are you?
- 5- Do you have brothers or sisters?
- 6- Goodbye, Rania

- () I'm from England
- () I'm ten
- () Goodbye, Amy
- () Fine, thanks
- () Good morning, Amy
- () No, I don't

The answers:

- (3)
- (4)
- (6)
- (2)
- (1)
- (5)

2.5 Talking about ourselves

Objective: To talk about themselves.

Group size: Eight students in each group, every pair has a computer. Students work in pairs.

Time: 10- 15 minutes.

Lesson phase: Controlled practice

Language focus: Speaking.

Unit 2 Lesson 3

Talk about yourself "complete"

Pupil – famous – Palestine – ten – sisters – brother
--

- 1- I live in - - - - -
- 2- My country is very - - - - -
- 3- I'm - - - - - years old.
- 4- I'm a good - - - - -
- 5- I have two - - - - - and a - - - - -

The answers:

1. Gaza
2. Famous
3. Ten
4. Pupil
5. Sisters, brother.

5.3 The clock

Objective: To practice questions and answers about time.

Group size: Eight students in each group, every pair has a computer. Students work in pairs.

Time: 10- 15 minutes.

Lesson phase: Controlled practice

Language focus: Speaking.

Unit 3 Lesson 3

Ask and answer about the time:

1) What's the time?



It's- - - - -

"ten o'clock – eleven o'clock – twelve o'clock"

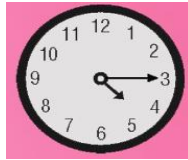
2- What's the time?



It's - - - - -

"half past nine – quarter past nine – nine o'clock"

3- What's the time?



It's - - - - -

"quarter past three – quarter past four – quarter past two".

4- What's the time?



- - - - -

"ten to six – ten to nine – ten to seven"

5- What's the time?



It's - - - - -

"twenty to ten – twenty to eleven – twenty to nine"

The answers:

1. Eleven o'clock
2. Half past nine
3. Quarter past four
4. Ten to nine
5. Twenty to ten

5.4 Who am I?

Objective: To practice oral sentences using the pronouns I and We.

Group size: Eight students in each group, every pair has a computer. Students work in pairs.

Time: 10- 15 minutes.

Lesson phase: Controlled practice

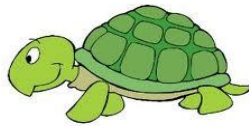
Language focus: Speaking.

Unit 4 Lesson 3

Click on the correct picture



The hare



The tortoise



The animals

- 1- I walk slowly _____
- 2- I run quickly _____
- 3- _____
- 4- I was the last in the race _____
- 5- I was the first in the race _____
- 6- I went to sleep _____

The answers:

1. The tortoise
2. The hare
3. The animals
4. The hare
5. The tortoise
6. The hare.

6-Writing Games

6.1 Sentence building Game

Objective: To re-order some words to make meaningful sentences .

Group size: Eight students in each group, every pair has a computer.

Time: 10- 15 minutes.

Lesson phase: Controlled practice

Language focus: Punctuation, spelling, cohesion.

Unit 1 Lesson 4

Re- Order

- 1- name - My - Ali - is
- 2- am - from - I - Palestine
- 3- am - ten - I - old - years
- 4- have - two - a - brothers - sister - I - and .
- 5- name - Ali - His - is .
- 6- name - Mona - Her - is .

The answers:

1. My name is Ali.
2. I am from Palestine
3. I am ten years old.
4. I have two brothers and a sister.
5. His name is Ali.
6. Her name is Mona.

Unit 4 Lesson 4

Re- Order:

- 1- ran - quickly - hare - The
- 2- sleep - hare - The - went- to
- 3- The - was - last - hare
- 4- slowly- tortoise -walked -The
- 5- tortoise - was - The - first
- 6- laughed - at - the - The - animals - hare

The answers:

1. The hare ran quickly.
2. The hare went to sleep.
3. The hare was last.
4. The tortoise walked slowly.
5. The tortoise was first.
6. The animals laughed at the hare.

6.2 What's Wrong?

Objective: To practice punctuation rules.

Group size: Eight students in each group, every pair has a computer.

Time: 10- 15 minutes.

Lesson phase: Controlled practice

Language focus: Punctuation, spelling (writing).

Unit 2 Lesson 4

In each sentence there is punctuation mistakes, find and correct them.

- 1- london is a big city in england
- 2- many tourists visit the city
- 3- they visit the famous buildings
- 4- one of the famous buildings is the tower of london
- 5- the capital of Palestine is jerusalem
- 6- amy is eleven years old

The answers:

- 1- London is a big city in England.
- 2- Many tourists visit the city.
- 3- They visit the famous buildings.
- 4- One of the famous buildings is the Tower of London.
- 5- The capital of Palestine is Jerusalem.
- 6- Amy is eleven years old.

6.3 The Scattered Letters Game

Objective: To work out and write some words related to alphabetical order .

Group size: Eight students in each group, every pair has a computer.

Time: 10minutes.

Lesson phase: Controlled practice

Language focus: spelling (writing).

Unit 3 Lesson 4

Work out the following puzzles and find the words

(a b c d e f g h i k l m n o p q r s t u v w x y z)

1- A word starts with the 4th letter of the alphabet. -----

O	g	d
---	---	---

2- A word ends in the 7th letter of the alphabet. -----

i	g	b
---	---	---

3- A word from the 2nd, 5th and the 4th letter of the alphabet -----

d	e	b
---	---	---

4- A word starts with the 7th and ends with the 12th letter of the alphabet –

i	g	r	l
---	---	---	---

5- A word starts with 12th letter of the alphabet -----

n	o	i	l
---	---	---	---

6- A word ends with the 7th letter of the alphabets -----

g	e	g
---	---	---

The answers:

1.dog

2.big

3.bed

4.girl

5.lion

6.egg

6.4 Get it!!

Objective: To re-order the alphabets according to their logical order.

Group size: Eight students in each group, every pair has a computer.

Time: 10- 15 minutes.

Lesson phase: Controlled practice

Language focus: spelling (writing).

Unit 3 Lesson 4

Put the letters in alphabetical order

1- c a g

2- s b t

3- f g i d

4- b f s k

5- y h g b u

6- r j l n

The answers:

1.a, c, g.

2.b, s, t.

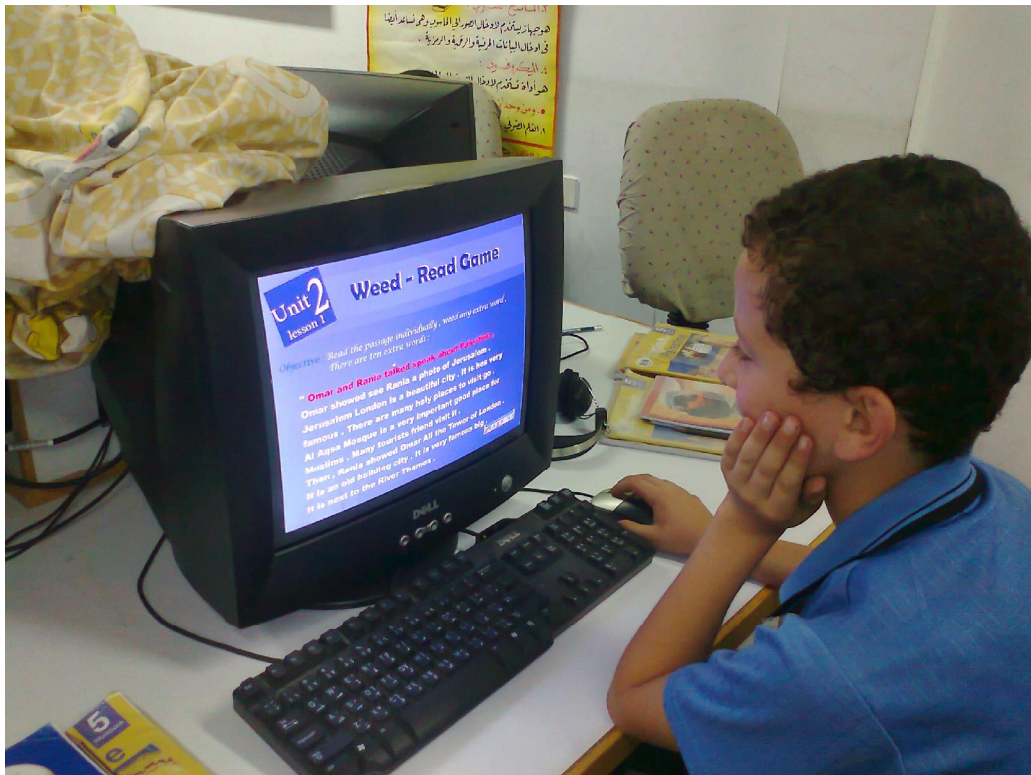
3.d, f, g, i

4.b,f, k, s.

5.b,g, h, u, z.

6.j, l, n, r.

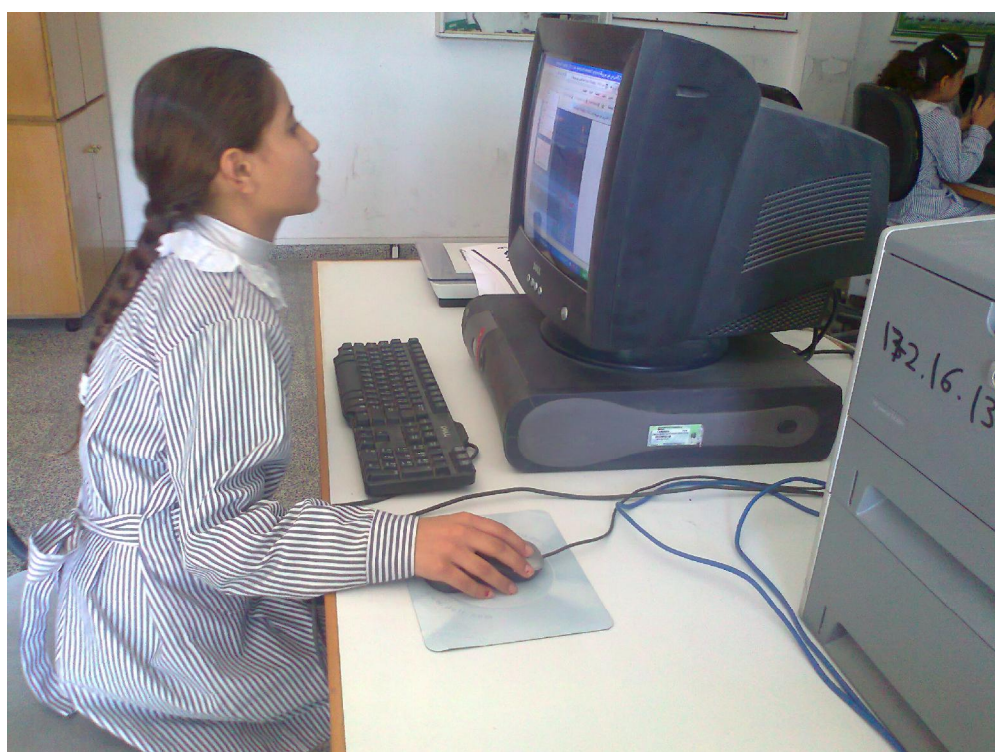
Appendix (D)
Pictures of the Project

















Appendix (E)
Letter of Permission

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



الجامعة الإسلامية - غزة
The Islamic University - Gaza

هاتف داخلي: 1150

عمادة الدراسات العليا

الرقم: ج س غ/35
2011/09/12
التاريخ: Date

السادة/مؤدري/مادرس/مدرسات/معلمين
بسم الله
بإدارة/مدرسة/مدرسة/مدرسة
بإدارة/مدرسة/مدرسة/مدرسة
حفظه الله، بما لا يحصى (معلمين/مدرسات)

الأخ الدكتور/ رئيس برنامج التربية والتعليم بوكالة الغوث
السلام عليكم ورحمة الله وبركاته،

الموضوع/ تسهيل مهمة طالبة ماجستير

تهديكم عمادة الدراسات العليا أعطر تحياتها، وترجو من سيادتكم التكرم بتسهيل مهمة
الطالبة/ غصون نافذ عبد اقطيفان، برقم جامعي 220090512 المسجلة في برنامج الماجستير
بكلية التربية تخصص مناهج وطرق تدريس-لغة إنجليزية، وذلك بهدف تطبيق أدوات دراستها
للماجستير والحصول على المعلومات التي تساعد في إعدادها والمعنونة بـ:

تم اختيار مدرست
بنات من (مدرسة)
(ع.أ)
لتجسيه بحث
خاص

**The Effectiveness of Using Educational Computer Games
on Developing Palestinian Fifth Graders' Achievement
in English Language in Gaza Governorates.**

والله ولي التوفيق،،،

عميد الدراسات العليا
أ.د. فؤاد علي العاجز



سيد/مدرسة/مدرسة/مدرسة
بسم الله
لإدارة/مدرسة/مدرسة/مدرسة
ع.أ

صورة إلى:-
الملك.

0599 609487

تسهيل مهمة + تطبيق لتبليغ + الحصول على معلومات الطالبات

Appendix (F)
Referee Committee

Referees' List

This list includes the names and titles of the referees who refereed the achievement test and the suggested program where (1) refers to those who refereed the test and (2) refers to those who refereed the programme.

1_ Test's referees

2_ Programme's referees

Name	Field	Institution	1	2
Professor Izzo Afana	Faculty of Education	IUG	√	√
Professor Waleed Amer	Faculty of Arts	IUG		√
Dr. Awad Keshta	Faculty of Education	IUG	√	√
Dr. Kamal Murtaja	Faculty of Arts	IUG	√	√
Dr. Sanaa' Abu Dakka	Faculty of Education	IUG	√	
Dr. Fathia Lolo	Faculty of Education	IUG		√
Mr. Mohammad Abd Al-Raheem	Inst. at Dep. of English	Al-Aqsa Uni	√	
Mr. Alaa' Harb (M.A)	Supervisor of English	UNRWA	√	√
Mrs. Soha Dawood	Supervisor of English	UNRWA	√	
Mrs. Maha Barzaq (M.A)	Educational Researcher	AL-Qattan	√	
Mr. Alaa' Al- Udainy (M.A)	Teacher of English	UNRWA	√	√
Mrs. Naima Ali (M.A)	Teacher of English	UNRWA	√	
Mrs. Huda Abu Sha'ban (B.A)	Teacher of English	UNRWA	√	√
Mr. Naeim Bkhet (B.A)	Teacher of English	UNRWA		√
Mrs. Wea'm Abed Albary (B.A)	Teacher of English	UNRWA	√	√

IUG stands for the Islamic university of Gaza

UNRWA stands for United Nations Relief and Work Agency