

أثر استخدام الألعاب الإلكترونية المحوسبة في تحصيل طلبة الصف السابع في القواعد والمفردات في اللغة الإنجليزية

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الملخص

هدفت الدراسة الحالية إلى قياس أثر استخدام الألعاب الإلكترونية المحوسبة في تحصيل طلبة الصف السابع في القواعد والمفردات في مادة اللغة الإنجليزية. حيث تكونت عينة الدراسة التي اختيرت عشوائياً من (٥٨) طالباً من طلبة الصف السابع في مدرسة رم الخاصة في عمان - مديرية التعليم الخاص- خلال الفصل الدراسي الثاني من العام الدراسي ٢٠١٧-٢٠١٨. وقد تم توزيع الطلبة على مجموعتين: تجريبية (٣٠) طالباً، وضابطة (٢٨) طالباً. ولتحقيق أهداف الدراسة، صمم الباحث أدوات الدراسة المتمثلة في اختبار القواعد المطبق قبلية وبعدياً على المجموعتين، واختبار المفردات المطبق قبلية وبعدياً على المجموعتين. وقد أظهرت النتائج وجود فروق ذات دلالة إحصائية بين المجموعتين لصالح المجموعة التجريبية التي درست باستخدام الألعاب الإلكترونية المحوسبة.

الكلمات المفتاحية: الألعاب الإلكترونية المحوسبة، القواعد، المفردات، تدريس اللغة الإنجليزية كلغة أجنبية.

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The Effect of Using Computer Games on EFL 7th Graders' Achievement in Grammar and Vocabulary

Abstract

This study aims at investigating the effect of utilizing computer games on EFL 7th graders' achievement in grammar and vocabulary. The sample of the study comprised 58 seventh graders from Rum Private School in Amman. The students were assigned randomly to two groups, experimental and control. To achieve the purpose of the study, the researcher designed pre/post grammar and vocabulary tests. The validity and reliability of the instruments were guaranteed through implementing scientific approaches. The results of the study showed significant statistical differences at ($\alpha \leq 0.05$) between the two groups in the post-grammar and vocabulary tests in favor of the experimental group that was taught by using computer games.

Keywords: computer games, grammar, vocabulary, EFL

1-Introduction:

Technology development in human being's life has brought so many changes around. In the traditional view of learning, undoubtedly, the whole teaching and learning activity was carried out both by the teacher and the learners employing the face-to-face technique without any sort of effective interaction between the learner and teacher and without using meaningful tools that would assist in the whole learning process ⁽¹⁾ (Qassemzadeh and Soleimani, 2016).

In this sense, technological advancements would provide a platform through which students can grab knowledge in a more independent and decentralized fashion while maintaining the required interest in the curricula. However, not only can technology integration save precious class time, but it can also help instructors create interactive and collaborative opportunities to engage learners and improve learning. In other words, web-based resources untiringly disseminate information to

learners at their own pace and convenience to achieve comprehension, competence, or mastery. Learning a foreign language has always been a big challenge for most of the learners in their educational background (Farrington 1999, as quoted in Bataineh and Mayyas 2017) ⁽²⁾.

The influence of technology on English as a Foreign Language (EFL) teaching and learning has brought many positive effects. Using technological tools in the learning process creates better communication for the learners. ⁽³⁾ (Rodinadze & Zarbazoia, 2012).

You Tube, video games, speaking avatar and interactive stories are more attractive technology tools for students that they use in their lifetime. Therefore, using these educational technology tools to improve students' achievement and attitudes towards learning EFL is essential. Applying this new method of teaching vocabulary through online tools might motivate students and attract their attention towards learning vocabulary or any other language components and skills which might lead hopefully to a better learning ⁽⁴⁾ (Jitsupa; Nilsook; and Piriyaawong, 2012 as quoted in Baniabdelrahman, 2013). ⁽⁵⁾

Any computer game either designed by language teachers as members within a team, or adopted from varied websites and implemented in classes as they are, should meet the basic educational guidelines. In both cases, English language teachers should be stick to the fundamental educational guidelines that should be available in computer games used by language teachers. Sorensen (2012) and Gee (2006) stated that across their digital-based play activities, children prefer games that are characterized by action, challenge, performance, enjoyment and interactivity.

The use of technology could be used effectively to address various language areas, including grammar and vocabulary, which are considered to be key elements in EFL field. Richards and Renandya (2002) indicated that grammar is perhaps one of the most controversial issues in language teaching. Traditionally speaking, grammar was taught by the teachers in these circumstances, learners have not become involved in learning and the ends of the curriculum were not fulfilled then. Grammar has been regarded as crucial to the ability to use English as foreign or second language. It has gained a vital role in language instruction. The reason for this is that mastering grammar is the foundation of proficiency in English language. Acquisition of grammatical structure probably helps EFL learners to expand the linguistic competence needed to communicate and to explore complex links such as those between grammatical structures and genres ⁽⁶⁾

With regards to vocabulary in foreign language learning process, Schmitt (2000) argues that the basic role of vocabulary knowledge in second or foreign language learning has been recently recognized by theorists and researchers in the field. Accordingly, some types of approaches, techniques, exercises and practice have been suggested into the field to teach vocabulary.

Through significant command of grammar and vocabulary, learners can be confidently engaged in truly communicative activities in both the formal and informal levels. Hence, the researcher believes that the traditional way of teaching all English language skills proved its fallacy to a great extent. This necessitates the adoption of newly-invented and interactive computer games that are supposed to bring about a drastic change in the students' level. Consequently, this study targets two English language sub-skills; grammar and vocabulary, which play a crucial role in shaping the learners' linguistic competence.

2. Statement of the problem:

Teaching English at schools and then at universities for more than a decade, the researcher has become almost convinced that the widely-used teaching technique which relied mainly on lecturing and face-to-face interaction is not sustainable and cannot yield the desired learning outcome and may slow the learning process. Therefore, it's of a paramount importance to abandon the rigid traditional ways of teaching English language skills and employ more innovative and technology-based techniques to improve students' level in English.

Moreover, most EFL teachers raise so many complaints about students' inability to master the main grammar basics of the target language with a very small number of vocabulary repertoires in relation to the many years they spend learning English. Consequently, weakness in all skills including grammar and vocabulary reflects their apparent failure in successfully communicating with people using English language.

Furthermore, the results of a number of studies conducted in the EFL field show that despite efforts exerted by the Ministry of Education in Jordan to improve students' level in English, EFL learners still show apparent weakness in both grammar and vocabulary (Al Masri and Al Najar ,2014⁽⁷⁾; Baniabdelrahman ,2013; Abu Naba'h, 2012⁽⁸⁾; and Bataineh and Mayyas ,2017)⁽⁹⁾.

Thus, the researcher believes that the utilization of technological advancements especially in the area of computer games becomes of a highest demand. So, this study tends to test the effectiveness of using

computer games in EFL learners' achievement in grammar and vocabulary.

3-Questions of the study:

The current study attempts to answer the following questions:

1-What is the effect of using computer games on improving EFL 7th graders' achievement in grammar?

2-What is the effect of using computer games on improving EFL 7th graders' achievement in vocabulary?

4-Objectives of the Study:

This study is conducted to meet varied objectives that can be summarized as follows:

1-Investigating the effect of using computer games on improving EFL 7th graders' achievement in grammar.

2-Investigating the effect of using computer games on improving EFL 7th graders' achievement in vocabulary.

5-Significance of the Study:

The importance of the current study arises from the fact it targets the effectiveness of utilizing games as one of the technological advancements in the field of education. The more these games are used in classes, the farther we will be from the traditional ways of teaching. These ways proved, throughout the last decades, substantial weakness in English language at schools. This may help teachers, principals and even decision makers reconsider the methods of teaching applied at schools nowadays. Therefore, while designing EFL curricula, syllabi designers may adopt new methods, techniques and strategies by successfully exploit E-learning platforms and some other computer and internet applications. Other researchers may also be inspired to pursue further research using other applications or games that focus on other language skills. Furthermore, the researcher believes that this study would help the Jordanian EFL learners overcome their incompetence of grammar and vocabulary. Finally, the main foci of this study are on autonomy learning that targets the student-centered approach rather than teacher-centered approach.

6.Delimitations of the study:

The study, which was conducted during the second semester of 2017-2018 scholastic years in Rum Private School in Amman, investigates the effect of using computer games on improving EFL 7th graders' achievement in two English language sub-skills; grammar & vocabulary. The grammar aspects included in this study were chosen in light of the table of contents of the seventh grade textbook. These topics included: past

simple, present continuous, countable/uncountable nouns, and comparative and superlative adjectives.

7. Literature Review and Related Studies:

7.1. Theoretical framework

In traditional language teaching, EFL learners are passive participants within a very boring physical environment. Thus, there would not be left any interest for the learners to actively take part in the teaching and learning process. Regarding the various developments taken place in the human life, nowadays, the way of learning is something away from the traditional pinpoint in which technology has entered the human life to make everything easier than before (Ellis, 2003 as quoted in Qassemzadeh and Soleimani, 2016) ⁽¹⁰⁾. Roblyer and Edwards (2000: 84) ⁽¹¹⁾ states that "Computer-based practice may motivate students to do the practice they need. Computers don't get patient or give disgusted look when students give wrong answers".

According to Al Masri & Al Najar (2014)⁽¹²⁾, electronic games have proven effectiveness in the teaching and learning process in various ways:

1-Games bring in relaxation and fun for students, thus help them learn and retain new words more easily.

2-Games usually involve friendly competition and they keep learners interested.

3-Vocabulary games bring real world context into the classroom and enhance students' use of English in a flexible, communicative way.

4-Games are highly motivating and they give students more opportunity to express their opinions and feelings.

5-Games add diversion to the regular classroom activities," break the ice", but they are also used to introduce new ideas.

Baniabdelrahman (2013) ⁽¹³⁾ indicated that online tools can provide background pictures, objects, characters, sound effects and even music to be integrated into activities, noting that teachers can use You Tube and games as online tools to enhance language teaching situation. He added that online tools can provide creative classroom activities that can attract the learners and help them involved in the learning process. The online tools also allow students to use them again and again for reviewing purposes.

Derakhshan and Khatir (2015) ⁽¹⁴⁾ indicated that computer games are beneficial in vocabulary learning because they enhance students' ability to memorize words, encourage student's interaction, improve their communicative skills and enhance students' motivation. They added that

games can help the teachers to create contexts in which the language is useful and meaningful, indicating that educational games attract more attention and could be applied in the classroom in order to learn and teach new vocabulary more effectively.

As for the importance of grammar in language learning, it is believed that grammar is one of the key elements that learners need to master while learning a foreign language. Grammar provides the learners with the structure to build complete and meaningful sentences. In foreign language acquisition accurate understanding of the language structures is the key part so teaching grammar is an essential aspect of foreign language instruction. There has always been a debate about the most effective way of teaching grammar⁽¹⁵⁾ (Mart, 2013).

With regard to vocabulary, researchers in TEFL field believe that vocabulary is one of the most difficult aspects of learning a foreign language, particularly in an EFL context, is the retention of vocabulary. Al Masri and Al Najjar (2014)⁽¹⁶⁾ indicated that vocabulary learning plays a major role in English language learners' success, adding that vocabulary is considered to be one of the crucial components to master English as a Foreign Language (EFL).

Zahedi & Abdi (2012)⁽¹⁷⁾ pointed out that knowing vocabulary items doesn't only mean memorizing long lists of words by heart, but also acquiring the ability to use these items in meaningful sentences to communicate with others. The greater vocabulary students master, the better they perform their language. They added that with limited vocabulary repertoire, students will face huge difficulties while trying to convey messages to others.

7.2. Related Studies:

The researcher outlined a number of studies conducted in various contexts concerning the application of technology in foreign language teaching and learning with special emphasis on the role of computer games on EFL learners' achievement in grammar and vocabulary in particular.

Bataineh and Mayyas (2017)⁽¹⁸⁾ examined the effect of Moodle-enhanced instruction on Jordanian EFL students' reading comprehension and grammar performance. The study used a quasi-experimental, pre-/post-test design. A purposeful sample of 32 students, enrolled in a language requirement course at a Jordanian state university, was randomly divided into an experimental group (n=17) and a control group (n=15). The former used blended learning in which Moodle supplemented in-class instruction whereas the latter used in-class instruction only. Using means, standard

deviations, ANCOVA and MANCOVA, the analysis revealed that the experimental group outperformed the control group (at $\alpha = 0.05$) in both reading comprehension and grammar.

Klimova & Kacet (2017)⁽¹⁹⁾ examined the effect of computer games on language learning. The purpose of this study was to explore the impact of computer games on language learning and list its benefits and limitations for foreign language learning. The findings showed that computer games, especially the educational ones, are effective in the vocabulary acquisition in foreign language learning. In addition, the results indicated other benefits of using computer games in classrooms such as exposure to the target language, increased engagement, or enhancement of learners' involvement in communication. On the contrary, the findings revealed certain limitations of computer games' use in language learning such as the fact that high interactivity may hinder the vocabulary acquisition and learning, not all games are useful for language learning, or a lack of knowledge about computer games among language teachers and institutions hinders their proper use.

Silsupur (2017)⁽²⁰⁾ investigated the extent to which language games affect vocabulary learning in EFL classes. The study attempted to test the role of using word games in L2 vocabulary acquisition. 12 female participants from Uludag University were selected for control and experimental groups. Additionally, 35 participants from different universities in Turkey were invited to attend the study. First, an online questionnaire about the effect of games on vocabulary learning was administered to 35 participants. Secondly, 12 female participants were divided into two groups as control group and experimental group. Both groups were taught certain words, however, a word game known as "Bingo" were utilized for the experimental group. Finally, a vocabulary quiz was administered to both groups to determine the differences between them. The scores obtained from vocabulary quiz showed that the experimental group outperformed the control group in vocabulary quiz. Even so, there was no significant difference between the results of the quiz. Similarly, the findings of the questionnaire indicated that the participants preferred learning through vocabulary games rather than traditional way. Also, the findings revealed that games reduced negative feelings during the learning process. It was suggested that teachers should reconsider the role of games and appreciate their educational value.

Benoit (2017)⁽²¹⁾ conducted a study to explore the effect of game-based learning on vocabulary acquisition of middle school English language

learners. The study revealed no statistically significant difference in academic vocabulary scores when a game-based curriculum was introduced compared to traditional workbook lessons. The researcher recommended bringing computer games into EFL class to increase academic learning and success.

Ebrahimzadeh and Alavi (2017⁽²²⁾) examined the effect of digital video games on high school students' language learning motivation. Participants were 241 male students randomly assigned to one of the following three treatments: Readers, who intensively read the game's story; Players, who played the digital video game; and Watchers, who watched two classmates play the digital video game. A language learning motivation scale was given to the participants as a pre- and post-test. Also, field notes were taken. Results indicated a significant language learning motivation increase over time. Only the Watchers, however, showed significantly higher motivation than the Readers in the end.

Jerome (2016)⁽²³⁾ investigated the impact of classroom games on the acquisition of second language grammar. The sample of the study consisted of 34 Turkish learners of English as a second language. The experimental group was exposed to three class period of games, while the control group had three class periods of traditional instruction (e.g. worksheets and whiteboard explanations). A pre-test, a post-test, and a delayed post-test were given. T-tests were performed on the scores from each test and a mixed (with-subject and between group) ANOVA was conducted. Additionally a survey was conducted to determine the experience of the students. Results of the statistical analyses were not significant, but the students reported being motivated by the games. It is recommended that teachers use games in their grammar classrooms about once a week.

(2015)⁽²⁴⁾ investigated the comparative effectiveness of teaching English grammar by using deductive and inductive teaching models. The study also attempted to examine which of these two methods has a positive effect on the grammar academic achievement of the university students and elementary school students in Jordan. The achieve purpose of the study; the researcher prepared two programs based on inductive and deductive methods for each level. The participants of the study consisted of four assigned sections. Firstly, at the university level, two colleges were randomly selected out of the eighteen faculties of Al balqa' Applied University; two sections were randomly selected; one group was randomly assigned as the 1st experimental group (by using inductive method) and the

second experimental group (by using deductive method). Similar process was adopted in the case of school students at the elementary stage. The relevant pre-tests were administered to the students of both groups at each stage (university and school) to make sure that the groups were equivalent at the time of starting the experiment. The researcher designed two grammar achievement tests as the instruments of this study (one for the elementary stage and one for university level). The instrument of each stage consisted of two achievement tests (pre- test and post-test). At the end of the treatment period, relevant post-tests were administered to the students of both the groups. The results of the study revealed that there were significant statistical differences at ($\alpha \leq 0.09$) among the grammar performance means of both groups at both levels due to inductive method.

Ashraf, Ghanei & Salami (2014)⁽²⁵⁾ conducted a study to test the impact of online games on learning English vocabulary by Iranian (Low-intermediate) EFL learners. The participants, (24) low-intermediate EFL learners, were randomly assigned to experimental and control groups. The experimental group learnt some new words via online computer games in 15 weeks. A vocabulary-based test, acting as pre-test and posttest, was conducted in the first and 15th weeks. The findings of the analyzed data indicated that the experimental group outperformed the control group statistically significant in the post-test.

Al Masri and Al Najar (2014)⁽²⁶⁾ investigated the effect of using word games on primary stage students' achievement in English vocabulary in Marj Al Hamam Primary school for girls and Al Baraa' School for boys in Amman in Jordan. To achieve the purpose of the study, apre/ post-test was constructed to measure students' level in English vocabulary. The subjects of the study were distributed into four groups (two female groups experimental and control, and two male groups; experimental and control). The experimental groups were taught English vocabulary using games while the control groups were taught using the traditional way of teaching using pictures and memorization. Findings of the study indicated that there were statistically significant differences in the post-test results between the control and the experimental groups in favor of the experimental group, and there was no statistically significant difference in the students' achievement due to gender.

Khonmohammad & Akbar (2014)⁽²⁷⁾ conducted a study that focused on the effect of using games on English grammar among young learners of English language in Iranian context. The design of this study was based on quasi-experimental method. The study consisted of two groups, namely an

experimental and a control group. The participants took a pre-test on grammar at the beginning of the course. The experimental group experienced 24 sessions of grammar treatment via game-based instruction controlled by the researchers and performed by the members of the group and the learners in the control group dealt with the traditional program of learning grammar through explanation. Finally, both groups sat for a post-test and data were collected and analyzed through Independent Samples t-test analysis. The results showed that the participants in the experimental group outperformed the control group significantly.

Zu'bi and Sabha (2013)⁽²⁸⁾ investigated the role of Mobile-based Email in improving Ajloun College English students' achievement in writing and vocabulary acquisition. The researchers carried out a project based on Mobile-based Email for the experimental groups. Thirty students were purposefully chosen from two universities (Al-Balqa Applied University and Jerash University) in the first semester of the academic year 2011. The instrument of the study was a survey. To establish the validity for the instrument, the method of content validity was used by giving it to a jury of specialists. Means scores and standard deviations of the participants' responses on writing and vocabulary were used to examine the significance of the treatment on the dependent variables. The results revealed that the writing skills and vocabulary of the students in the experimental groups significantly improved.

Abu Naba'h (2012)⁽²⁹⁾ investigated the impact of using computer assisted grammar teaching on the performance of Jordanian pupils studying English as a foreign language. The sample of the study consisted of (212) secondary pupils distributed randomly on four experimental groups and four control groups.

To find out the impact of a software program on students' performance in grammar, the researcher designed an achievement test and used it as a pre-test and a post-test for the experimental and the control groups. An Analysis of Covariance (ANCOVA) was used to find out the effect of the instructional program on the pupils' achievement in the passive voice. The findings of the study showed no statistically significant differences ($\alpha \leq 0.05$) between the pupils' achievement mean scores in grammar attributed to the instructional method of teaching. This difference is in favor of the students in the experimental group. On the other hand, there were statistically significant differences ($\alpha \leq 0.05$) between the pupils' achievement mean scores in grammar attributed to stream of study in favor of the scientific stream students.

Qteefan (2012) ⁽³⁰⁾ conducted a study that aimed to investigate the effectiveness of educational computer games on the fifth graders' achievement in English language in Gaza Western Governorates. 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). 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.

Through what has been reviewed in previous studies, it is clearly observed that the outlined studies were conducted in various contexts at the local, Arab and international levels addressing different language skills. Some studies used different technology-based techniques to develop the learners' language skills, including listening, speaking, reading and writing. The findings of many studies indicated that technology could play an effective role in developing the learners' language skills, such as Bataineh and Mayyas (2017) ⁽³¹⁾, Benoit (2017) ⁽³²⁾, Jerome (2016) ⁽³³⁾, Ashraf, Al Masri and Al Najjar (2014) ⁽³⁴⁾, Khonmohammad and Akbar (2014) ⁽³⁵⁾, Abu Naba'h (2012) and Qteefan (2012) ⁽³⁶⁾.

It is worth mentioning that the current study is different from the previous studies in some points. The current study addresses key language components, which were neglected over the past period, English grammar and vocabulary. To the researcher's best knowledge; a few studies were carried out at the Jordanian level on using computer activities to teach grammar and vocabulary. Thus, the current study is an attempt to bridge the gap by investigating the effect of using computer games on Jordanian EFL seventh graders' grammar and vocabulary achievement.

8. Methodology

8.1. Design of the Study

The study followed the quasi-experimental design; two seventh graders' groups from Rum Private School in Amman were randomly chosen. The students were assigned to two groups (control and experimental).

The experimental group received instruction in grammar classes through computer games while the control group was instructed through traditional

strategies. A pre/post grammar and vocabulary tests were administered to both groups before and after the treatment (the use of computer games) which was applied to the experimental group over 5 weeks, 10 meetings, 45 minutes each. Once the data for the pre/ post-tests was collected, t-test was conducted to examine whether there are significant statistical differences in mean scores of the two groups in the post grammar and vocabulary tests.

8.2. Participants

The sample of the study comprised 58 male seventh grade students from Rum Private School, Amman Directorate of Private Education. The participants were assigned randomly to two groups, control and experimental. There were 30 students in the experimental group and 28 students in the control group. The students, aged 13 years old, were of similar levels according to their scores on the pre- grammar and vocabulary tests. They study the same textbook (Action Pack 7 Seventh Grade (New Edition), which was assigned by the Ministry of Education in Jordan. They also live in nearly similar economic and social circumstances.

8.3. Instruments:

To achieve the purpose of the current study, the researcher developed a pre/ post grammar test to measure the effect of using computer games on developing EFL seventh grade students' achievement in grammar. Another pre/post test was developed to measure the effect of using computer games on EFL 7th graders' achievement in vocabulary.

8.3.1. The grammar pre/post- test

The initial form of the grammar test consisted of 28 items. The test aimed at measuring the level of both groups in grammar in EFL before and after the introduction of the computer games, which were applied to the experimental group during grammar classes.

8.3.2. The vocabulary pre/post- test

The initial form of the test consisted of 30 multiple-choice questions. The test aimed at measuring the level of both groups in vocabulary in EFL context before and after the implementation of computer games.

8.3.3. Validity of the pre-post tests

To ensure the validity of both tests, they were submitted to eight English language specialists, including university instructors, teachers and supervisors, who were asked to validate the tests with regard to their instructions and suitability to the current research purpose.

The remarks and suggestions of the experts were taken into consideration by the researcher before applying the test. The final form of

the grammar test consisted of 25 items, 20 multiple choice and 5 find-the-mistake items. The test included questions about the following topics: past simple, present continuous, countable and uncountable nouns, and comparative and superlative adjectives.

The final form of the vocabulary test included 25 items. The students were asked to select one answer only from four options for each question. The time allocated to each test was 40 minutes with a 50-point total score for each (Appendix 1 and Appendix 2).

8.3.4. Reliability of the pre-post tests

The researcher administered the tests to a pilot sample of 18 students other than the sample of the study; the students were retested after 15 days. By using Pearson Correlation Formula, the reliability coefficient stability was computed. The grammar test value scored (0.83) while the vocabulary test value scored (0.81).

8.4. Treatment:

The material consisted of four grammar topics based on the table of contents of the seventh grade English textbook (Action Pack 7 Seventh Grade / New Edition), which was adopted by the Ministry of Education for Jordanian schools in its decision No. 4/2011.

The grammar topics used in this study included the following aspects: past simple, present continuous, countable and uncountable nouns, and comparative and superlative adjectives.

During the treatment, the experimental group's students were taught the assigned grammar lessons at school computer lab through using computer games based on the British Council website (learn English Kids): <https://learnenglishkids.britishcouncil.org/ar/grammar-practice>.

The website includes many grammar games that provide fun activities to practice English with "word order" and "gap fill" games.

In addition, another online language building website, with both vocabulary and grammar activities for ESL students, was used: <https://www.mes-games.com/>. This website, entitled (Games and Activities to Learn English) consists of free online ESL games, grammar games, question and answer activities, vocabulary, spelling and reading activities.

The teacher was briefed by the researcher on how to use the website appropriately and implement the experiment. The teacher was also provided with the principle guidelines needed in this blended-learning environment. The experimental group studied one grammar topic each week in accordance with a timetable prepared by the teacher. On the other hand, the control group studied the same grammar topics in traditional

ways through which the teacher explained the rule and gave some examples, then asking the students to do homework activities. Both the control and experimental groups were taught by the same teacher.

8.5. Procedures:

The study was carried out by sticking to the following procedures:

1-Reviewing the related literature in the field of grammar and vocabulary in EFL and the use of computer games in the educational field.

2-Using the English textbook adopted by the Ministry of Education for Jordanian seventh grade students and selecting some grammar topics.

3-Designing the tools of the study and checking their validity and reliability and then selecting a random sample.

4-Administering the grammar & vocabulary pre-tests to both experimental and control groups.

5-Initiating the intervention of the computer games on the experimental group.

6-Administering the grammar & vocabulary post-tests to both experimental and control groups.

7-Analyzing data and presenting the results and recommendations.

9. Results & Discussion:

This section addresses the questions of the study to verify the effectiveness of using computer games on improving students' level in grammar and vocabulary. The results will be shown in line with the order of the questions of the study.

Question One: "What is the effect of using computer games on developing 7th graders' grammar performance?"

The researcher used the Statistical Package for the Social Sciences (SPSS) to analyze data; mean scores and standard deviations of the pre/post-test scores of both groups were calculated as shown in table (1).

Table 1: Means and Standard Deviations of grammar pre-post test

Group	M	SD	N
Experimental	Pre: 30.8333	6.73172	30
	Post: 35.5333	7.56003	
Control	Pre: 32.0714	5.76020	28
	Post: 34.2143	5.52005	

Table (1) shows a difference between the mean scores of both groups. Means of the pre-test scores of the control group is 32.07 while the mean of the post-test scores is 34.21. The table also shows that the mean of the pre-test scores of the experimental group is 30.83 while the mean of the post-test scores is 35.53.

To ascertain whether these differences between mean scores are statistically significant, a T-test was used as seen in (table 2).

The figures in table 2 indicate that there is a statistical difference at ($\alpha \leq 0.05$) between the two groups in the post test in favor of the experimental group. T-value is (-5.347), which is significant at ($\alpha \leq 0.05$). Such results could be attributed to the positive effect of using computer games on developing grammar performance of the experimental group's students in EFL.

Table 2: Results of T-test Independent Samples

Group	N	M	SD	T-value	Df	Sig.
Control	28	34.21	5.520	-5.347	27	.000
	43		05			
Experimental	30	35.53	7.560	-5.347	27	.000
	33		03			

Question Two: *"What is the effect of using computer games on developing 7th graders' vocabulary performance?"*

Mean scores and standard deviations of the pre/post-test scores of both groups were calculated as shown in table (3):

Table 3: Means and Standard Deviations of vocabulary pre-post test

Group	M	SD	N
Experimental	Pre: 31.3333	6.26613	30
	Post: 36.3000	6.44419	
Control	Pre: 32.2857	6.07275	28
	Post: 33.8929	6.56218	

Table (3) shows that there is a difference between the mean scores of both groups. The mean of the pre-test scores of the control group is (32.28) while the mean of the post-test scores is (33.89).

The table also shows that the mean of the pre-test scores of the experimental group is (31.33) while the mean of the post-test scores is (36.30). Further statistical analysis, as shown in table (4), indicates that there is a statistical difference at ($\alpha \leq 0.05$) between the two groups in the post test in favor of the experimental group.

T-value is (-8.62), which is significant at ($\alpha \leq 0.05$). Such results could be attributed to the positive effect of the computer game on developing vocabulary acquisition of the experimental group's students in EFL.

Table 4: Results of T-test Independent Samples

Group	N	M	SD	T-value	DF	Sig.
Control	28	33.8929	6.56218	-8.626	29	.000
Experimental	30	36.3000	6.44419			

The results from the data analysis show that, on an average, the performance of the students in grammar and vocabulary improved for both groups.

However, the progress of the experimental group, where the computer games were used to teach grammar and vocabulary, was higher than that of the control group where the traditional method was used. The findings of the current study agree with that of the previous studies. The results were in line with findings in the studies of Klimova & Kacet(2017⁽³⁷⁾), Silsupur (2017)⁽³⁸⁾, Benoit (2017)⁽³⁹⁾, Jerome (2016)⁽⁴⁰⁾, Ashraf, Ghanei & Salami (2014)⁽⁴¹⁾, Al Masri and Al Najar (2014)⁽⁴²⁾, Khonmohammad & Akbar (2014)⁽⁴³⁾, Abu Naba'h (2012)⁽⁴⁴⁾ and Qteefan (2012)⁽⁴⁵⁾. All these studies affirmed the effectiveness of using games in improving students' level in grammar and vocabulary.

This study reassured the findings of many previous studies which proved the effectiveness of using computer games in the process of teaching and learning in general and teaching grammar and vocabulary in particular. The researcher may attribute this significant progress in both sub-skills (grammar & vocabulary) to many factors as follows: First, students are disappointed with the rigid, demotivated and boring methods that are being used in most schools. These unfavorable ways of teaching are accompanied with a non-relaxing physical environment with overcrowded classes. Second, using computer games in computer labs provided students with plethora of facilities and advantages that can't be seen in ordinary classrooms. One of the main advantages is that students use most of their senses (hearing, seeing, touching) through the interaction with the games and the computer sets. In this new rich environment, all students enjoy playing while unconsciously achieve the objectives of lessons identified by teachers. Third and most importantly, this new environment enhances autonomy learning as it gives the students the chance to try more than once until they get the correct answer, and they also can practice at their home in accordance with their pace in a non-threatening atmosphere without being afraid of punishment when mistakes

occur. This accelerates the process of creating autonomous learners who can take responsibility over their learning even when teachers are not around. Finally, the new trend in the world nowadays emphasizes the shift from teacher-centered approach to student-centered approach.

The researcher believes that the use of computer games in EFL class in general and in teaching grammar and vocabulary in particular, contributed to creating an attractive and motivating learning environment. The strategy also provided the students with an opportunity to play an effective role in the learning process and shift instruction to a learner-centered approach, which is in line with the current trends in TEFL field.

Furthermore, the researcher does believe that the use of computers in the process of teaching and learning is supposed to enhance the presence of independent learners equipped with life skills that may enable them to face the difficulties of life, away from the help of teachers or parents.

The researcher believes that the wider the margin the students have, the better learners we will get, and this can be achieved by maximizing the student's talking time and minimizing the teacher's talking time. Such shift could be achieved by many ways, one of which is the use of computer games in our schools. To sum up, the researcher believes that the outperformance of the experimental can be due to, but not exclusively, the aforementioned factors.

On the other hand, the researcher believes that the following educational characteristics should be available in computer games dedicated to EFL learners:

1-Pedagogical dimensions: Any games designed or adopted to be used in teaching and learning should be based on the theoretical foundation for the educational design. It is worth mentioning that any game should enhance collaboration, problem solving, autonomous learning, fantasy, reasonable focus on colors, effective interaction and interactivity, varied feedback modes etc.

2-Communication and Multimodality: The use of computer games should enhance effective and fruitful interaction between the learner and the games. To get the optimal interaction and interactivity, games should include animation, videos, audios, attractive colors, pictures, symbols, favorable sounds and as many icons as possible that may compensate the absence of face to face meetings such as smiling face, frown face, thumbs up or down, nodding heads etc.

3-Autonomous learning: Games should help students to depend on themselves rather than keep depending on their teachers. Therefore,

computer games should offer the chance for students to use games formally and informally. They should also be designed to strengthen learners' contribution to knowledge formation or creation. Here students felt that they have some knowledge to share others and they become active learners not passive ones.

4-Skill-oriented: Games should equip learners with educational, personal, societal and other life skills rather than passing knowledge to be memorized and confined to in-class purposes only.

10. Conclusion:

The current study aimed at examining the effect of using computer games on developing 7th graders' achievement in grammar and vocabulary in EFL. The results indicated that there were significant statistical differences at ($\alpha \leq 0.05$) between the control and experimental groups in the post-grammar and vocabulary tests in favor of the experimental group, which received instruction through computer games. Based on the statistical analysis, it could be concluded that the use of computer games had a positive effect on the 7th graders' achievement in grammar and vocabulary in EFL.

11. Recommendations:

Based on the findings, the researcher recommends using technology applications in TEFL field in general and in teaching grammar and vocabulary in particular. Using computer games to teach language skills should be taken seriously by decision makers in the Jordanian Ministry of Education. Teachers and principals at schools need to do their best to exploit technological advancements at schools in cooperation with the local community and non-governmental organizations, especially when the official institutions fail to bridge the gap. Researchers are invited to conduct further studies that target other English language skills.

The Grammar Test

Student's Name:

Number:

Date:

Time: 40 minutes

Q.1: Choose the appropriate word to fill in the blank in each of the following sentences:

- 1- Who is _____ tennis player in this class?
a-the better b-the good c-the best d-better than
- 2- The phone _____, can you answer it, please?

- a-rings b- ring c- rang d-is ringing
 3-Excuse me, I need _____ information about the trains to London.
 a-many b-a few c-some d-few
 4- How _____ rice do we have left?
 a-much b- does c-do d-many
 5-I am busy right now. I _____ my homework.
 a -am do b- do c-doing d-am doing
 6-Your watch is _____ than mine.
 a -the most cheap b- cheaper c-more cheap d-the more cheaper
 7-February is _____ month in many countries.
 a -the coldest b- more colder c- colder d- cold than
 8- I _____ an e-mail to the company two weeks ago.
 a- am sending b-send c-sent d- sends
 9-The window was open and a bird _____ into the room.
 a-fly b-flew c-was flew d- flies
 10-The bed was very uncomfortable. I _____ sleep very well.
 a-didn't b-did c-wasn't d- not
 11-To make a pancake, you need _____ eggs and flour.
 a-an b-much c-some d-little
 12- _____ you waiting for a bus?
 a-do b- are c- does d- is
 13- My brother _____ studying English at Yarmouk University.
 a-is b- does c- do d- not
 14- It's cold, don't open _____ windows.
 a-some b-little c- any d- much
 15-I met _____ students yesterday in the school.
 a-much b- little c- a little d- some
 16- Don't make so much noise. Ali _____ to study for his English test now!
 a- try b-tries c-tried d-is trying
 17-Gold isn't _____ as platinum.
 a-more expensive b- most expensive c-the more expensive d- as expensive
 18-The plane is _____ way to travel.
 a-fast b- faster c-the fastest d- more faster
 19-It was cold, so I _____ the window.

a-shut b-was shut c-am shut d- shutted
 20-The police _____ me on my way home last night.
 a-was stop b-stopped c-stops d-stopping

Q.2: Correct the mistakes (underlined and bold) in each of the following sentences:

1- My best friend has upset yesterday.

2- Tom works at the moment.

3- There are no more water in the pond.

4- I need to find some informations about this topic.

5-My house is largest than hers.

Good Luck,,,

Appendix 2 The Vocabulary Test

Student's Name:

Number:

Date:

Time: 40 minutes

Q.1: Choose the appropriate word to fill in the blank in each of the following sentences:

- 1- I'm _____. I didn't want to throw your toys away.
 a-sorry b-happy c-going d-thirsty
- 2- Can you please _____ the music a little bit? It is very loud.
 a-go down b- turn on c- turn down d- turn up
- 3-Ibn Battuta is a very _____ traveler.
 a-tourist b- merchant c- popular d- adventure
- 1-The rainbow is so beautiful! The word beautiful means _____.
 a- without beauty b-full of pain c- dark and gloomy d- full of beauty
- 2-The word (replay) means _____.
 a-to play again b-to play fast c- to play a long time d- to play after
- 3-Visiting places for fun is called _____.
 a-adventure b- tourism c- education d- trade
- 4-I _____ with you, this movie is really boring! Let's change the channel.
 a- accord b- meet c- agree d- join
- 5-Ahmed comes from Egypt so his first language is _____.

- a-Arabian b-Arab c- Arabia d-Arabic
- 6-Don't _____ to post the letters tomorrow.
- a-forget b- remember c- mind d- matter
- 10-Can I _____ your pen?
- a-lend b- borrow c- give d-start
- 11-They were all _____ so they went to a restaurant to eat something.
- a-hungry b-angry c- thirsty d- fat
- 12-We are going to _____ the football match on TV next week.
- a-look b- see c- watch d- listen
- 13-How much do these tomatoes _____?
- a-price b- charge c- pay d-cost
- 14-Can you _____ French?
- a-talk b- tell c- say d-speak
- 15-My video recorder isn't _____ , could you repair it for me?
- a- making b-doing c-going d-working
- 16-My favorite subject at school was _____ because I love learning about numbers.
- a-history b- science c- mathematics d- art
- 17-All the children at that school have to _____ a uniform.
- a-wear b-carry c- put d- use
- 18-My father's brother is my _____ .
- a-uncle b-cousin c- nephew d-aunt
- 19-For dinner we had _____ and rice.
- a-chicken b- cow c- pig d-sheep
- 20Ali _____ his bicycle to work every day.
- a-drives b-goes c- gets d-rides

Q.2: Identify the opposite of the word (underlined and bold) in each of the following sentences:

- 1-Ahmad is **rich**. Everybody in Amman knows that he owns a company.
- a-servant b-smart c- poor d-owner
- 2-Hassan **likes** the sunbath on the sunny beach.
- a-unlike b-loves c- hates d- to shine
- 3-Ahmad bin Majid is a very **well-known** traveler.
- a-famous b-unknown c- disknwon d- inknwon
- 4-The film was **interesting**. I enjoyed it very much.
- a-fantastic b- boring c- exciting d-short
- 5-This box is too **heavy**. I can't lift it so high.
- a-small b- light c- big d- clean

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