THE EFFECTIVENESS OF INTERACTIVE VISUALIZED SOFTWARE IN THE ACQUISITION OF READING AND SPEAKING SKILLS IN ENGLISH LANGUAGE COURSE FOR EFL STUDENTS IN THE PRIMARY STAGE

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ABSTRACT_ *Modern technologies entered our houses and our daily life. They are used in hospitals, companies, shops and schools. Many teachers use PC programs in their classrooms as an aid of teaching and learning processes. This quasi-experimental study aimed to determine the effectiveness of interactive software to acquire the skills of reading and speaking in the English language for students in sixth grade. The study applied to 60 primary stage male students. Its tool was a test fulfilled in a primary school in Al-Madinah Al-Munawarah, The study findings indicated the following: 1. There are statistically significant differences at the level (0.05) in the mean of post-test marks of the reading skill for students in the favor experimental group attributed to the use of an interactive computer program. 2. There are statistically significant differences at the level (0.05) in the mean of post-test marks of the speaking skill for the students in the favor of experimental group attributed to the use of an interactive computer program. 3. The effectiveness of an interactive computer program to acquire the speaking skill rated of (42.1%) more than the proportion (37.3%) to be effective in the acquisition of reading skills. The study recommended the need to design interactive computer programs for Teaching English in public schools, especially primary schools.*
Keyword*: Effectiveness, EFL students, Interactive software, Primary stage, Reading Visualized software, skill, Speaking Skill.*

I. INTRODUCTION

Theoretical background:

The advent of technology has contributed to the formation of a scientific term in the methods of teaching languages has become known as the "Computer Assisted Language Learning" (CALL). It is a form of Computer-based Learning, which has two advantages: dual direction learning and individual learning [1]. Although many educators do not consider this type of teaching as method, it has used in teaching to facilitate the process of learning the language. Teaching based on the computer has an important feature that the student is the focus of the educational process [2].

Some studies [3] indicated that the computer assisted language learning is useful in several elements including:

• Learning efficiency: Learners are able to capture the linguistic knowledge more quickly and with minimal effort.

• Effective learning: the learner retains the information and language skills for a longer time.

• Easy access: the learner can interact with different

linguistic expertise that some may be impossible to reach unless by using computer.

• Appropriateness: the learner can study and apply across a wide range of time and place.

• Motivation: learners enjoy studying the language through computer programs and thus participate actively in the teaching and learning process.

Institutional efficiency: Learners teacher needs less time and that's where the provision of material costs to the organization, and support for the quality of their output

A number of studies [4] also addressed the impact of Computer Assisted Language Learning (CALL) to learn the four language skills: reading, writing, speaking and listening. Most reports [5] have shown that the greatest impact of this type of learning was awarded to the skills of reading, listening, because of the nature of the programs designed on the computer where that mostly contains exercises on reading and listening. Whereas, in respect of speaking and writing skills; computer programs are deficient in the ability to evaluate properly [6]. Some studies [7] showed that computer programs have not only contributed greatly to the transformation to teach reading, speaking in a foreign language, but also provided opportunities for more effective foreign language learners to improve these skills

A study conducted in one of higher education institutions [8] indicated that the use of computerized materials has a significant impact on student achievement in the skill of listening in English. When computer program used beside the effort of the teacher at the beginning of the lesson, students scored better results at the end of the lesson more than students who received the computerized treatment without the help of a teacher. In university level, the study of Fajardo [9] explained that interactive computer programs have a significant role in the development of English language skills of university students and recommended that the university budget should include specialization covers the design of those programs for the purposes of English language teaching. In a secondary level, AL-Hammadi's [10] revealed that the effectiveness of a software program designed to develop the skill of listening to the students of the English language at the secondary level (grade III secondary) and

proved that it has a high level role in the educational attainment in this skill.

In Saudi Arabia, teaching English is in three stages of public education (elementary, middle, and secondary), also it is taught in the university stage as a requirement of the University and as specialization that can be joined and taken all certificates of higher education.

Through the above studies, it was observed that studies trends on the subject of the current study was to focus on the grades above elementary school, but this study comes to focus on teaching English in the primary schools of the kingdom of Saudi Arabia. It is important because teaching of English language at this stage last no more than ten years old, so there is a need to discuss the development areas because of the primary stage is the foundation stage of teaching English to the following stages.

II.   THE PROBLEM OF THE STUDY

The Ministry of Education has made a major effort in the development of English language teaching in Saudi schools, where it has recently been experimenting with several types of courses designed by internal and external educational organizations in order to elevate the level of the students in English language skills. These efforts indicate the existence of shortcomings in the acquisition of language skills for students targeted in its plans. The current study seeks through this experiment to resolve an important part of the teaching English problems in primary school in Saudi Arabia.

The main question of the study is:

What is the effectiveness of interactive visualized software on acquiring reading and speaking skills in English among sixth grade students?

From that main question, the following two questions are derived:

1. Are there any statistically significant differences at the level of (0.05) in mean of post-test marks in the acquisition of reading skills among students in the experimental group who taught by using the interactive program and the students in the control group who taught by the traditional way (teaching directly from teacher).

2. Are there any statistically significant differences at the level of (0.05) in the mean of post-test marks in the acquisition of speaking skills among students in the experimental group who taught by using the interactive program and the students in the control group who taught by the traditional way (teaching directly from teacher).

Importance of the study:

Number of studies recommended in the field to ensure the effectiveness of utilizing computerized software in teaching English to students [11,12] and to ensure the acquisition of the four major English skills [13].

In light of the above, the significance of the current study appears in the following:

• The need to know the effectiveness of utilizing interactive computer programs in teaching English to

primary school students in Saudi Arabia.

• The need to guide the improvement of the acquisition of English in primary education through scientific study efforts.

• The need for utilizing PC software to enhance learning English language by students.

Study Limitations:

The current study spatial, temporal, and objective limits can be shown as follows:

- Spatial boundaries of the study:

The study was conducted at Al-Bara bin Azib Elementary School in Al-Madinah Al-Munawwarah.

- Temporal limits:

The study was conducted during the second semester of the year 2014/2015

- Objective limits:

The study was conducted in the English language course for sixth-grade primary and included specific lessons from 19-26 (from lesson 19 to lesson 26).

The study terms:

Effectiveness: is the ability to achieve the objectives in light of available resources. Some researchers [14] ensured that effectiveness means: "reaching the objectives and expected results.

It can be defined procedurally: the extent to which the objectives reached".

Curriculum specialists said, "The term effectiveness in the area of curriculum and instruction refers to the impact of the teacher in his students, or wanted a change, which makes them reach the educational goals. Thus, we find that effectiveness refers to the educational outcomes that appear in student performance as the impact of education." [15].

In this study, effectiveness means the amount of improvement that brought by the interactive computer program in acquiring the skills of reading and speaking of the sixth grade primary school students in Saudi Arabia.

Interactive computer software:

Interactive software designed by the researcher using the flash program (Flash Professional 8) called (success to teach English) and contains all the English lessons for primary sixth-grade assessed by the Ministry of Education, Saudi Arabia. It also includes interactive exercises supported by video and audio dictionary to translate the meaning of words in all of the lessons. It also provides opportunities for self-evaluation to determine the amount of progress in the acquisition of English language skills.

III.   METHODOLOGY OF THE STUDY

The current study used the quasi-experimental method (Quasi-Experiment). This method provides the researcher "measure of control over extraneous factors" [16] when studying the effectiveness of the independent variable on the dependent variable. This study has been in accordance with the control group with pre and posttest design (Pretest and posttest Control group design), which requires the

presence of two groups of the study sample: an experimental group and a control group [17].

Community of the study:

The current study population consisted of all sixth grade students in Madinah elementary schools who are studying English language (English in Saudi Arabia) allocated for this year of the primary stage.

The study sample:

The sample of the study consisted of 60 students who are randomly selected and assigned into two groups: experimental (30 students) and control (30 students) groups. All students were in the 6th grade and enrolled in the Al-Bara bin Azib Elementary School in Al-Madinah Al-Munawwarah.

The homogeneity of the groups was adjusted after analyzing the pre-test results as shown in Table (2) where the value of the significance of the analysis of the pre-test for two groups in reading skill (0.232) and in the speaking skill (0.102) and they were clearly higher than (0.05) which shows no differences between the two groups, which is also seen in the mean marks of students as they close in both groups, but they are identical in reading skill test (5.1) for both groups.

Table (2) the homogeneity of the experimental and control groups

Tool of the study:

The researcher regarding the content studied during the period of the experiment to develop a test as a tool for the current study.

Table 1
Reliability and Validity of the tool

	NO	MEAN	READING SKILL STANDARD DEVIATION	SIG	MEAN	SPEAKING SKILL STANDARD DEVIATION	SIG
Control	30	5.1	2.029	O.232	1	1.2	0.102
Experimental	30	5.1	2.49		1.6	1.66	
Total	60	10.2	4.52		2.6	2.86	

• The PC program was uploaded to the internet to be available any time for the experimental group (http://www.draasa.com/lessons/sucess.rar)

• The school to be the place of the study was chosen Al-Bara bin Azib school) and requested officially by the University of the Researcher.

• Two classrooms were chosen randomly to implement the study.

• Pretest was done in both classrooms about the lessons that were chosen to implement the study on.

• The experiment was implemented in two months.

• Post-test was done in the same two classrooms.

IV. RESULTS AND DISCUSSION

To answer the first question, the means and the standard deviations of students' pre-post marks in the reading and speaking skills as measured by the achievement test in both groups were computed and statistically tested by using t.test for independent samples as presented in tables 2 and

The test was distributed to many specialists to make necessary corrections. It applied on 30 students to ensure reliability. Their results analyzed by (SPSS). The reliability of the tool (test) was 75% (alpha).

Data Analysis:

The study used the following statistical tests to analyze the study information:

- Alpha Cronbach coefficient to determine the reliability of study tools

- T test for independent samples.

- Covariance analysis (ANCOVA) to denote the differences between the mean marks of experimental and control groups in the post test results.

Procedures: the following procedures were followed in the study:

• The researcher designed a PC program

• The program reviewed by specialists to make necessary correction before implantation.

Table 2
The Difference In Student Achievement In Reading Skill

		Pre-test		Posttest		
	N	Mean	SD	Mean	SD	sig
Experimental	30	5.1	2.029	6.3	3.41	0.015
Control	30	5.1	2.49	5.9	2.34	0.614

the mean marks for students in the control group post-test (M = 5.9, SD = 2.34) were alost same as those in the pre-test (M = 5.1, SD= 2.49). This indicates clearly the impact of the independent variable.

It can be seen from Table 3 that the mean marks of the students in the experimental group in the post-test (M = 6.3, SD = 3.41) were higher than those in pre-test (M = 5.1, SD = 2.02) for the reading skill with a significant level of statistical differences at level of (0.05). However,

Table 3
The difference between the results of students in speaking skill

		Pre-test		Posttest		
	n	M	SD	M	SD	sig
Experimental	30	1.6	1.66	4.96	2.9	0
Control	30	1	1.2	3.23	2.8	0

pre-test (M = 1, SD = 1.20), but there are statistical differences in the post-test marks in the favour of the experimental group.

Analysis of covariance (ANCOVA) was applied for students' achievement post-test marks for reading and speaking English skills in both groups to test for any significance (Table 4).

It can be seen from Table 4 that the mean marks of the students in the experimental group in the post-test (M = 4.96, SD = 2.90) were higher than those in pre-test (M = 1.6, SD = 1.66) for the speaking skill with a significant level of statistical differences at level of (0.05). However, the mean marks for students in the control group post-test (M = 3.23, SD = 2.80) were also higher than those in the

Table 4
Results of covariance analysis with the significance of the differences between the mean marks of experimental and control group in the post test analysis of the skill of reading

SOURCE OF VARIANCE	SUM OF SQUARES	DF	SQUARES MEAN	F	SIG)	EFFECT SIZE
Corrected model	5.593	10	0.559	2.914	0.006	0.373
Intercept	66.558	1	66.558	346.712	0	0.876
Within groups	5.593	10	0.559	2.914	0.006	0.373
Error	9.407	49	0.192			
Total	150	60				

The table (4) also shows that there are statistically significant differences between the marks mean of the experimental and control groups in the post for the skill of reading test. Because the value of F is (2.914), which is statistically significant at the level of (0.05). The effect size is (0.373). This means that (37.3%) of the variance, which got the grades of students in post-test due to the use of an interactive computer program (experimental treatment), and the result appear in the table for the analysis of variance of correcting model.

As it can be seen from Table (4) There are significant differences between the marks mean of the experimental and control groups in the post test of reading skill due to the associated variable (pre-test) as the value of F (346.712). It is statistically significant at the level (0.05). The effect size was (0.876). This means that 87.6% of the variance, which got the grades of students in post- test due to their knowledge of specific subjects in the experiment, before the post test, regardless of the experimental treatment.

Table 5
the results of covariance with the significance of the differences between the mean marks of experimental and control group in the post test analysis of the speaking skill

Source of variance	Sum of squares	df	Squares mean	F	sig	Effect size
Corrected model	6.321	9	0.702	4.047	0.001	0.421
Intercept	53.871	1	53.871	310.368	0	0.861
Within groups	6.321	9	0.702	4.047	0.001	0.421
Error	8.679	50	0.174			
Total	150	60				

It is clear from Table (5) the presence of statistically significant differences between the marks mean of the experimental and control groups in the post-test of speaking skill due to the associated variable (pre-test) as the value of F is (310.368). It is statistically significant at the level (0.05) and the effect size is (.861), this means that (86.1%) of the variance which received grades of students in post test for the skill of speaking back to their knowledge of specific subjects in the experiment is scheduled before the post test, regardless of the experimental treatment.

It is also seen in the table (5) that there is statistically significant between the mean scores of the experimental and control groups in the post test for the speaking skill. Differences in favor of the experimental group as the value of F is (4.047). It is statistically significant at the level of the value (0.05). The effect size was (0.421), this means that (42.1%) of the variance, which got the grades of students in post test of speaking skill due to the use of an interactive computer program (experimental treatment The same result displayed in the table for the analysis of variance of corrected model, a percentage illustrates the effectiveness of the software in the acquisition of speaking

skill more in its effectiveness than the acquisition of reading skill. This may be due to the presence of sound techniques in the program and its ease of use by students in an interactive manner. It was attractive to students.

V.   RECOMMENDATIONS

Conclusion and Recommendations: In summary, results of the study revealed that:

1. There are statistically significant differences at the level (0.05) between the test scores mean in the acquisition of reading skill for students in the experimental group who studied computer-assisted interactive programs and the control group students who have studied in the traditional way with the help of teacher only. This result is due to the use of interactive software.

2. There are statistically significant differences at the level (0.05) between the test scores mean in acquisition of speaking skill for students in the experimental group who studied computer-assisted interactive programs and the control group students who have studied in the traditional way by the help of teacher only. This result is due to the use of interactive software.

1. Interactive computer program showed effectiveness in acquiring the speaking skill (42.1%) more than the

proportion (37.3%) to be effective in the acquisition of reading skill.

In light of the results previously mentioned, the study recommended that:

1. There is a need to design computer interactive programs for teaching English language courses in general education schools, especially in the primary stage.

2. There is a need to train English teachers on the use of computer programs designed to teach and learn this language in order to ensure the achievement of the desired efficiency.

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فعالية برنامج تفاعلي مرئي في اكتساب مهارتي القراءة والتحدث بمقرر اللغة الإنجليزية لدارسيها كلغة أجنبية من طلاب المرحلة الابتدائية

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المملكة العربية السعودية

الملخص ــ *دخلت التقنيات الحديثة بيوتنا وحياتنا اليومية. وهي تستخدم في المستشفيات والشركات والمحلات التجارية والمدارس والجامعات. ويستخدم العديد من المعلمين برامج الكمبيوتر في صفوفهم كوسيلة تساعد في عمليات التعليم والتعلم . وهذه الدراسة شبه التجريبية تهدف إلى تحديد مدى فعالية برنامج حاسوبي تفاعلي على اكتساب مهارتي القراءة والتحدث باللغة الإنجليزية لطلاب الصف السادس الابتدائي. وقد طبقت أداة الدراسة (اختبار) على 60 طالبا في احدى المدارس الابتدائية بالمدينة المنورة بعد تحكيمها وقياس ثباتها بمقياس ألفا كرونباخ (75%). كما استخدمت الدراسة بعض المعالجات الإحصائية بمساعدة برنامج (SPSS) لتحليل معلومات الدراسة شملت اختبار (ت) وتحليل التباين. وأشارت نتائج الدراسة إلى وجود فروق ذات دلالة إحصائية عند مستوى (0.05) في متوسط درجات الاختبار البعدي لمهارة القراءة لصالح الطلاب في المجموعة التجريبية يعزى لاستخدام برنامج الكمبيوتر التفاعلي. ووجود فروق ذات دلالة إحصائية عند مستوى (0.05) في متوسط درجات الاختبار البعدي لمهارة التحدث لصالح الطلاب في المجموعة التجريبية يعزى لاستخدام برنامج الكمبيوتر التفاعلي. كما أشارت النتائج إلى أن نسبة فعالية برنامج الكمبيوتر التفاعلي لاكتساب مهارة التحدث (42.1٪) أكثر من نسبة فعاليته (37.3٪) في اكتساب مهارات القراءة. وأوصت الدراسة بضرورة تصميم برامج كمبيوتر تفاعلية لتدريس اللغة الإنجليزية في المدارس العامة خصوصا المدارس الابتدائية.*

الكلمات المفتاحية: فعالية، طلاب اللغة الإنجليزية كلغة أجنبية، البرمجيات التفاعلية، المرحلة الابتدائية، البرمجيات المرئية للقراءة، المهارة، مهارة التحدث.