THE EFFECTIVENESS OF INTERACTIVE SOFTWARE IN THE ACQUISITION OF SKILLS OF READING AND SPEAKING IN ENGLISH LANGUAGE COURSE FOR SIXTH PRIMARY GRADE STUDENTS

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ABSTRACT

This quasi-experimental study aimed to determine the effectiveness of interactive software to acquire the skills of reading and speaking in English language for students of sixth grade.

The study findings indicated the following:

1. There are statistically significant differences at the level (0.05) between the mean of posttest marks of the reading skill for students of the experimental group and that of the control group students attributed to the use of an interactive computer program.

2. There are statistically significant differences at the level (0.05) between the mean of posttest marks of the speaking skill for the students of the experimental group and that of the control group students 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 an interactive computer programs for Teaching English in public schools, especially primary schools.

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. 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 computer has an important feature that the student is the focus of the educational process (Okonkwo, 2011).

Some studies (Hubbard, 2009) indicate that the computer assisted language learning is useful in several elements include:

- 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 also addressed the impact of Computer Assisted Language Learning (CALL) to learn the four language skills: reading, writing, speaking and listening. Most reports 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 the skills of speaking and writing, the computer programs are still deficient in the ability to evaluate properly. (Domingo, 2007).

Some studies 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” (Ismail & et al, 2012).

Another study conducted in one of the institutions of higher education (Yusof, 2012), indicated that the use of computerized materials have 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 teacher.

In Undergraduate stage Also, a study (FAJARDO,.2014), explained the interactive computer programs have a significant role in the development of the 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 stage, another study (AL-Hammadi, 2013) revealed 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 search trends on the subject of the present study was to focus on the grades above elementary school and this study come to focus on the subject in the primary school in the kingdom of Saudi Arabia, especially teaching of the English language at this stage last no more than ten years old, so there is a need to discuss the development areas because of primary stage is the foundation stage of teaching English to the following stages. We ask Allah to help and guide.

The problem of the study and its questions:

The Ministry of Education has done a major effort in the development of English language teaching in Saudi schools, where it recently experimenting several types of courses designed from internal and external educational organizations in order to elevate the level of the students in English language skills. These efforts indicate the existence of short comings 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 questions of the study is:

What is the effectiveness of interactive software to acquire the skills of reading and speaking English to students sixth grade?

Branched out from the main question, the following two questions?
- What is the effectiveness of interactive software in raising achievement level in English reading skill for students of sixth grade?
- What is the effectiveness of interactive software in raising degrees in the achievement of speak English skill for students of sixth grade?
Importance of the study:

A number of studies recommended to ensure the effectiveness of the software in the teaching of English in various stages of education (Ghamdi, 2011) and (Zalaa, 2009), also other studies recommended by to ensure the effectiveness of the software in the acquisition of the four English skills (AlMasri, 2012). The significance of the current study can include the following:

- The need to know the effectiveness of the use of interactive computer programs in Teaching English to primary school in Saudi Arabia.
- The need to guide the development of the acquisition of English in primary education through scientific study efforts.
- The need to know the effectiveness of the interactive computer software in acquisition of English language skills for students of the upper grades of elementary school.

Objectives of the study:

The present study aims to:

1. Determine the effectiveness of an interactive computer program to acquire reading skills in English for students of sixth grade.
2. Determine the effectiveness of an interactive computer program to acquire English skill for students of sixth grade.

Hypotheses of the study:

1. There are no statistically significant differences at the level of 0.05 between the means of test marks in acquisition of reading skills for students of the experimental group who studied by assistance of an interactive program and the means marks of the control group students who have studied in the traditional way by the help of teacher only.
2. There are no statistically significant differences at the level of 0.05 between the means of test marks in acquisition of speaking skills for students of the experimental group who studied by assistance of an interactive program and the means marks of the control group students who have studied in the traditional way by the help of teacher only.

The limits of the study:

The current study spatial, temporal, and objective limits can be shown as follows:
-Spatial boundaries of the study:
The study was conducted in Bara bin Azib (may Allah bless him) Elementary School in Al-Madinah Al-Munawwarah.

-Temporal limits:
The study was conducted during the second semester of the year 1434/1435AH

-Objective limits:
The study was conducted on the English language course for sixth-grade primary and included specifically 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 (Al-Muneif,1983) 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 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." (Maddah0.1419: p. 13).
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 provide opportunities for self-evaluation to determine the amount of progress in the acquisition of English language skills.
Methodology of the study:

The current study used the quasi-experimental approach (Quasi-Experiment). This approach provides the researcher "measure of control over extraneous factors" (Sadiq and Abu Hatab, 1991, p. 96) 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 post tests design (Pretest and post-test Control group design), which requires the presence of two groups of the study sample: an experimental group and a control group (Gall && Borg, 2007: p405)

Community of the study:

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

The study sample:

This study applied to a sample of 60 students from the sixth primary grade, were randomly divided into a control group (30 students), and the experimental group included 30 students.

<table>
<thead>
<tr>
<th>No</th>
<th>Group</th>
<th>N</th>
<th>Treatment</th>
<th>pretest</th>
<th>The interactive pc software</th>
<th>posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>control</td>
<td>30</td>
<td></td>
<td>✓  ✔</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Experimental</td>
<td>30</td>
<td></td>
<td>✓  ✔</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

The homogeneity of 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 talk skill (0.102) and they were purely higher than (0.05) which shows no differences between the two groups, which is also seen in the marks mean of students as they close in both groups, but they are identical in reading skill test (5.1) for both groups.

<table>
<thead>
<tr>
<th>Group</th>
<th>reading skill</th>
<th>speaking skill</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>no</td>
<td>mean</td>
</tr>
<tr>
<td>control</td>
<td>30</td>
<td>5.1</td>
</tr>
<tr>
<td>experimental</td>
<td>30</td>
<td>5.1</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>10.2</td>
</tr>
</tbody>
</table>
Variables of the study:
1. Independent variable: the interactive computer software.
2. The associated variable: grades students in the experimental and control Groups in the achievement pre-test.
3. The dependent variable: marks of students in the experimental and control groups in the achievement of the post-test for the skills of reading and speaking.

Tools of the study:
The test is designed to achieve the objectives of the study, it was adjusted in the outer validity through consulting several specialists, and adjusted in the internal validity and reliability through Alpha Cronbach coefficient using software statistical (SPSS, where the test reliability was 75%) which was a convincing ratio for the application of the study on the targets.
The test consisted of two parts: a written part to determine the impact of interactive computer program on the acquisition of reading skill, and oral part to determine the impact of the program on the acquisition of speaking skill.

Statistical treatment of the data of the study:
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.

Discussion of the results of the study:
The current study used the program (SPSS) to analyze the results in order to answer the questions of the study and validate the hypothesis:
A. Results for the study with questions:
   - What is the effectiveness of interactive software to acquire the English skills of reading and speaking for students of sixth grade?
   - What is the effectiveness of interactive software in raising achievement marks of reading skill in the English language for students of sixth grade?
   - What is the effectiveness of interactive software in raising achievement marks of English speaking skill for students of sixth grade?
To answer these questions the means and standard deviations were counted by researcher. The marks of the experimental and control groups on academic achievement test (pre-And post) and through the application oft-test for independent samples. The results were as shown in tables (3) and (4) below.

Table (3) the difference in student achievement in reading skill

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-test</th>
<th>Posttest</th>
<th>sig</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>mean</td>
<td>standard deviation</td>
</tr>
<tr>
<td>experimental</td>
<td>30</td>
<td>5.1</td>
<td>2.029</td>
</tr>
<tr>
<td>control</td>
<td>30</td>
<td>5.1</td>
<td>2.49</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>10.2</td>
<td>4.52</td>
</tr>
</tbody>
</table>

It can be seen from Table 3 that the marks mean of the experimental group students in post-test more than the marks mean in the pre-test to the skill of reading, (6.3), it is a clear sign appeared on a difference in grades value (0.015) for the post test. On the contrary, for the control group, where did not show significant (.614) on the existence of a difference between pretest and post test for the skill of reading the results, where we also find that the little difference between the arithmetic mean of the marks of students in pretest (5.1) and in the post-test(5.9).

Table (4) The difference between the results of students in speaking skill

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-test</th>
<th>Posttest</th>
<th>sig</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>mean</td>
<td>standard deviation</td>
</tr>
<tr>
<td>experimental</td>
<td>30</td>
<td>1.6</td>
<td>1.66</td>
</tr>
<tr>
<td>control</td>
<td>30</td>
<td>1</td>
<td>1.20</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>2.6</td>
<td>2.86</td>
</tr>
</tbody>
</table>

In respect of speaking skill, it appeared through T-test results for independent samples, which was applied to the students' test results in this skill that there is a significant (0.000) on the improvement of the results of the two students groups in the post-test, although the improvement in the mean for the experimental group because the marks mean reached in the post-test(4.96), while the marks mean of the control group students in the post-test was (3.23).
To test the validity of hypotheses of the study; the analysis of covariance (ANCOVA) was applied for achievement posttest marks for reading and speaking English skills. The marks of students of the experimental group who studied English (in the course of the experiment) using interactive software in addition to the teacher. And the marks of achievement post-test for the control group students who studied English (in the course of the experiment) only with the help of the teacher. In order to detect the effectiveness of using an interactive computer program in acquiring the skills of reading and speaking and to make sure of the impact of the pre-test on the experimental treatment.

Table (5) Results of covariance analysis with the sign of the differences between the mean marks of experimental and control group in the post-test analysis of the skill of reading

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>Sum of squares</th>
<th>Degrees of freedom</th>
<th>Squares mean</th>
<th>F</th>
<th>( \beta ) sig</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>corrected model</td>
<td>5.593</td>
<td>10</td>
<td>.559</td>
<td>2.914</td>
<td>.006</td>
<td>.373</td>
</tr>
<tr>
<td>intercept</td>
<td>66.558</td>
<td>1</td>
<td>66.558</td>
<td>346.712</td>
<td>.000</td>
<td>.876</td>
</tr>
<tr>
<td>Within groups</td>
<td>5.593</td>
<td>10</td>
<td>.559</td>
<td>2.914</td>
<td>.006</td>
<td>.373</td>
</tr>
<tr>
<td>error</td>
<td>9.407</td>
<td>49</td>
<td>.192</td>
<td>2.914</td>
<td>.006</td>
<td>.373</td>
</tr>
<tr>
<td>Total</td>
<td>150.000</td>
<td>60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As it can be seen from Table(5) 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).I is statistically significant at 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.

The table(5) 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 is appeared in the table for the analysis of variance of corrected model.
Table (6) the results of covariance with the sign of the differences between the mean marks of experimental and control group in the post-test analysis of the speaking skill

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>Sum of squares</th>
<th>Degrees of freedom</th>
<th>Squares mean</th>
<th>F</th>
<th>.sig</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>corrected model</td>
<td>6.321</td>
<td>9</td>
<td>.702</td>
<td>4.047</td>
<td>.001</td>
<td>.421</td>
</tr>
<tr>
<td>intercept</td>
<td>53.871</td>
<td>1</td>
<td>53.871</td>
<td>310.368</td>
<td>.000</td>
<td>.861</td>
</tr>
<tr>
<td>Within groups</td>
<td>6.321</td>
<td>9</td>
<td>.702</td>
<td>4.047</td>
<td>.001</td>
<td>.421</td>
</tr>
<tr>
<td>error</td>
<td>8.679</td>
<td>50</td>
<td>.174</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>150.000</td>
<td>60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is clear from Table (6) 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 to talk 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 (6) that there is statistically significant between the scores mean 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 illustrate 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.

Through the above the study hypotheses can be rejected and results are summarized as follows:

1. There are statistically significant differences at the level(0.05) between the test scores mean in acquisition of reading skill for students of the experimental group who studied computer-assisted interactive program 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.

2. There are statistically significant differences at the level(0.05) between the test scores
mean in acquisition of speaking skill for students of the experimental group who studied computer-assisted interactive program 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.

3. 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.

Recommendations of the study:

1. In light of the results previously mentioned, the study recommended that:
   - There is a need to design computer interactive programs for teaching English language courses in general education schools, especially in 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.

Suggestions of the study:

The study proposed the following:

1. Doing further studies on the effectiveness of the use of interactive computer programs in teaching English at primary level.
2. Conduct similar studies of the current study include other language skills and take longer on the effectiveness of interactive computer programs in teaching English in primary schools.

References

1. Al-Ghamdi, Ahmed Bender (2011), the impact of the use of e-learning in teaching English grammar to collect first-grade secondary students (Master), Umm Al Qura University Makkah.
3. Almasri, Nesreen Mohammed (2012), the effectiveness of the use of the built-in e-learning teaching unit in the English language, second grade secondary in Makkah, (Master), Umm Al Qura University: Makkah.

9. Maddah, Samia (2001), the effectiveness of the use of cooperative learning and mathlab in the development of some of the mathematical concepts to the pupils the sixth grade in public schools in the city of Mecca “quasi-experimental study”, (Ph.D. thesis), Faculty of Education: Umm Al Qura University.


12. Sadiq, Amaal and Abu Hatab, Fouad (1991), the research and methods of statistical analysis methods in psychological, educational and social sciences, the Anglo Egyptian Library: Cairo.


14. Zeilae, Riad Ahmed (2009), the impact of the use of computer programs in learning English grammar for students of first year secondary school in Jeddah, (Master), Umm Al Qura University: Makkah.