The Effectiveness of Using Computer Edutainment Activities to Develop Preparatory Stage Pupils' EFL Speaking Skills

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Abstract
The present study was conducted to determine the effectiveness of using computer edutainment activities on developing the EFL speaking skills for preparatory stage pupils. The participants of this quasi experimental study consisted of 60 pupils in the first year preparatory stage at El Boughdadi preparatory school. They were assigned to an experimental group and a control group. There were three different instruments used in this study; namely an EFL speaking skills checklist to determine the speaking skills appropriate for the participants, an EFL speaking test to measure the participants' speaking skills and an EFL speaking skills rubric to score the participants' performance in speaking. Results of the study revealed that the experimental group outperformed the control group on the post administration of the speaking test. Thus it was concluded that using computer edutainment activities had positive effects on developing the speaking skills of the target sample. A number of recommendations and suggestions for further research were presented.

Key words: computer Edutainment Activities, Speaking Skills, Egypt.

Introduction:
Language is the most common medium by which people show their emotions, feelings, wishes, and desires. It is a normal way for people to interact with one another; a living being with its own system that grows within its rules; a nation's most significant national institution; a perfect framework made of sounds; and a web of secret agreements. English is the most important international language. Like other languages, English has four modes of communication or skills; listening, speaking, reading and writing. Speaking is one of these four language skills.

Making vocal sounds constitutes the act of speaking. It refers to the act of conversing or sharing one's feelings and thoughts through spoken language. The act of speaking frequently involves the transmitting of data. It may range from a casual comment to a formal address. Speaking abilities are those that allow us to effectively communicate. These abilities allow the speaker to passionately express his message.

Teaching speaking enhances the way pupils express their feelings, communicate their desires, engage with others in any situation, and
influence others. As a consequence, it is important to have a good understanding of speech while teaching speaking skills. They are in a dire need to be engaged in learning and have positive roles in the educational process. It can be achieved by using various edutainment activities. Consistently, Asakereh and Dehghannezhad (2015) stated that Students who expressed high satisfaction with speaking classes got high speaking skills scores, while students who expressed low satisfaction received low speaking skills scores. As a consequence, a friendly classroom atmosphere will inspire students to develop their speaking abilities. Accordingly, computer edutainment activities are recommended for enhancing a satisfactory speaking classroom environment.

Edutainment is a hybrid genre that heavily relies on visual content, narrative or game-like formats, and less structured, less didactic modes of presentation (Buckingham and Scanlon, 2000). The aim of edutainment is to engage learners' emotions through a computer monitor full of brightly coloured animations in order to attract and retain their attention. It is based on an interactive pedagogy.

According to (Raheem, 2011), Computer edutainment is a form of learning that is both fun and educational. It's the best way to start teaching kids how to write at this age. It helps you to practise your communication skills in a real-world environment. Pour (2006) assures that children learn best while they are playing. Computer edutainment software blends fun and learning in one kit. Children learn better in a fun learning atmosphere, and the best learning environment is one that helps them to enjoy themselves.

Cornbleet & Carter (2001) stated that speaking can often be difficult. We can have false starts, repeat ourselves, and forget what we wanted to say. Speaking English inside classroom is a challenge for most pupils. Outside classroom, students have few chances to hear English spoken. However, generally, speaking is much easier to learn than other skills. This means that the teacher must provide the students with all of their previous spoken English experiences. As a result, it is important to supply students with as many opportunities to listen to and speak English as possible in the classroom. Of course, they need some activities that break the barrier of the pupils' loss of confidence while speaking.

Nemec & Trna (2007) clarify that edutainment is a form of entertainment that allows participants to learn while having fun. They concentrate on the nuances of the pedagogical concept of play while also illustrating the areas of intersection with entertaining education. They make use of edutainment to develop speaking skills through a number of activities.
like; edutainment, game / play, experimenting, meaning of life, social role, simulation, cognition and self-cognition.

Based on the above discussion, Preparatory school teachers should integrate computer edutainment into their regular classroom activities to enhance their pupils' speaking. If this is incorporated into the language setting of the student, he or she will be able to learn new concepts and experiences that may otherwise be difficult to comprehend. In other words, computer edutainment can be used in a number of school settings to teach English as a foreign language. The present study used computer edutainment as an instrument to develop EFL preparatory stage pupils' speaking skills.

**Background of the problem**

Speaking is a challenging skill (Torky 2006, El-Basel 2008, Daif-Allah & Khan 2016, El Sakka 2019). As a teacher of English for 13 years, the researcher noticed that speaking is difficult for pupils; some pupils even avoid sharing in speaking tasks. This situation has become more challenging since there is no oral exam for pupils.

Nowadays, there has been an increasing demand for using computer in teaching. Upon the world demand for applying modern advances in education, computers have become one of the most powerful tools for learning and teaching. Computer edutainment is proposed as an approach for improving pupils' speaking skills (Diyyab, Abdel-Haq & Aly 2013 & Raheem 2011).

In addition to the researcher's observation and the results of the pilot study, reviewing literature indicated that pupils need to improve their speaking skills (Al Khuli, 2000 & Abdullah, 2008). Therefore, the present study investigated the effectiveness of using computer edutainment activities on developing preparatoty stage pupils' EFL speaking skills.

**Review of Literature**

**Following is a review of studies related to the dependent variable.**

Daif-Allah & Khan (2016) conducted a study to determine the needs of English language majors in terms of speaking skills, and investigated the impact of using Open Discussion Sessions as extracurricular speaking activities on the development of students' oral communicative abilities. The participants were 35 students and eleven English language teachers. The study's findings revealed a perceived need to improve Saudi EFL students' English speaking skills, as their oral communicative skills continued to rise, and their needs and desires were clearly defined, with more creative approaches for meeting those needs.
Carrero et al. (2017) studied college students at a Colombian university that offers an online English as a Foreign Language program. The study's aim was to learn more about the students' perspectives. Students believed that the practices promoted in e-learning environments helped them expand their vocabulary. Their reading and grammar skills have improved significantly. Students, on the other hand, believed that the amount of time they spent with their teachers should be increased so that they could ask questions and improve their speaking and writing skills.

Dincer (2017) used metaphor analysis to analyze EFL learners' assumptions about speaking English and being a strong English speaker. A phenomenological approach was used, and 60 EFL students completed a questionnaire that included demographic questions as well as two prompts based on the qualities of a good English speaker. Results revealed that learners viewed speaking as a skill that required a lot of effort but also provided enjoyment. A good English speaker is someone who is fluent in speaking, universal, pacifying, intelligent, fortunate, and hardworking.

Afrin (2018) conducted a case study to find out the importance of student participation in developing students' language skill in a real-world setting. It focuses on the improvement of speaking skills as a result of teachers' proper use of classroom interaction. Classroom interaction has always been common among teachers, but it is becoming less so due to a lack of adherence to a proper classroom interaction framework, which interrupts speaking skills. Both students and teachers are conscious of classroom contact, but real classroom interaction is reduced due to teachers monopolizing talk time and learners receiving fewer talk time with supervised activities. This case study indicates that teachers should pay close attention to students' interactions and provide extra talk time for students to improve their speaking skills.

El Sakka (2019) investigated the impact of explicit affective strategy training on the speaking performance of Freshmen English majors at Suez University, Egypt's Faculty of Education. The researcher designed the instrument, which was a pre/post speaking performance test. Eighty freshmen English majors were randomly assigned to one of two classes. Results revealed that there was a significant improvement on the participants' level of speaking skills after receiving the explicit affective strategy instruction.

According to previous research, speaking is the most valuable skill. To interact effectively, our students must be able to speak English with confidence. Since the aim of teaching speaking in the preparatory stage is to
allow students to express them without fear, they should be exposed to and imitate good models of English language on a regular basis. They should also be given numerous opportunities to speak the language openly in order to share their own ideas and communicate with the teacher and other students in the classroom. That can be done by applying some appropriate communicative activities in the multimedia rooms.

**Following is a review of studies related to the independent variable.**

Kazanci and Okan (2009) conducted research to provide a critical assessment of educational software developed specifically for children. Educators and parents have been adopting computer programs that combine education and entertainment on a wide scale since the early 1990s. It is assumed that learning will become more colorful and enjoyable as a result of edutainment software, and that learners will be able to acquire knowledge without the need for hard work or serious research.

Raheem (2011) investigated the impact of computer edutainment on the development of writing skills in thirty second graders. Thirty-two year primary school students from Minia governorate's Bani Hamad primary governmental school participated in the report. Findings indicated that the participants had significantly higher levels of writing samples in the areas of content and concepts, organization and type, design, and convention, according to the results. Additionally, the results revealed substantially higher levels of vocabulary acquisition.

Madsa (2012) conducted a study to see whether simulation could be used to motivate students to improve their English speaking skills for particular purposes. The students are highly motivated, and they believe they are getting enough practice as well as theory, Building a company (writing a business plan), holding meetings, negotiating, and giving a presentation are examples of successful simulations in English class. It was also suggested that the instructor provide input to the students, produce resources in the form of hardcopy and slideshows, and incorporate games and/or other activities into the lessons.

Diyyab, Abdel-Haq & Aly (2013) investigated the effectiveness of using a multimedia-based program for developing EFL speaking fluency skills among second year, English section student teachers. The sample consisted of thirty students at Sadat Faculty of Education, Minufiya University, Egypt. The study's findings showed that after using the software, the participants' EFL speaking fluency skills improved. As a result, the multimedia-based curriculum was found to be successful in helping second-year student teachers improve their EFL language proficiency.
In light of current research and literature, Bokiev, Bokiev, Aralas, Ismail, and Othman (2018) presented a paper aimed at analyzing the role and potential of music and songs in English language teaching. Results assured that the effective use of music and songs in language teaching has the ability to enhance multiple intelligences, relieve stress, encourage participation, enhance memory and establish an affectively stimulating learning environment. Additionally, music and songs can be used to assist students in learning nearly every aspect of the target language, and to acquire cultural awareness and inspire innovation. The paper explores theoretical arguments and empirical evidence in favor of using music and songs in language learning, as well as realistic suggestions for integrating music activities into ESL classrooms. The paper includes suggestions for incorporating music programs into ESL classrooms. More ESL teachers are expected to recognize music and songs as useful educational aids that can be used to involve students both affectively and cognitively, leading to more efficient and enjoyable language teaching and learning.

According to the previous literature, the process of pupils' speaking during lessons is a challenging matter to each teacher. Teachers ought to keep pupils alert to learning and engage them to speak new information. Of course, some pupils can not speak English well. Others fear making mistakes. Hence, the teacher becomes in a dire need to attract his pupils' attention speak. Students' speaking skills can be improved by drilling them in argument, question, and response using computer edutainment activities. Their growing average from pre-test to final test demonstrates this. Students became more inspired to learn speaking through computer edutainment exercises, which enhanced their curiosity and encouraged them to think critically.

So, the present study benefited from computer edutainment activities to develop the pupils' EFL speaking skills.

**Pilot Study**

In order to provide evidence for the problem of the study, the researcher conducted a pilot study to determine pupils' speaking level. An EFL speaking skills test was administrated to a sample of 15 first year preparatory pupils in El Baghdadi Preparatory School.
Table (1) Pupils' performance in the speaking skill test of the pilot study

<table>
<thead>
<tr>
<th>Speaking skills</th>
<th>Maximum Score</th>
<th>Mean</th>
<th>Ratio %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluency and coherence</td>
<td>45</td>
<td>19</td>
<td>42%</td>
</tr>
<tr>
<td>Word choice</td>
<td>45</td>
<td>25</td>
<td>55%</td>
</tr>
<tr>
<td>Grammatical accuracy</td>
<td>45</td>
<td>20</td>
<td>44%</td>
</tr>
<tr>
<td>Pronunciation</td>
<td>45</td>
<td>16</td>
<td>35%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>180</strong></td>
<td><strong>80</strong></td>
<td><strong>44%</strong></td>
</tr>
</tbody>
</table>

Table (1) shows that the sample's mean score is 80 (44 %), indicating that the students' level of proficiency in these speaking skills needs to be strengthened.

**Statement of the Problem**

The aim of this study was stated as "the Egyptian preparatory schools pupils need to improve their EFL speaking skills ". Pupils lack some essential speaking sub-skills such as fluency, accuracy, coherence and pronunciation. The lack of theses sub-skills demotivates most pupils and makes them reluctant to speak the English language. Thus, the current study attempted to develop 1st year preparatory pupils' speaking skills through the use of computer edutainment.

**Questions of the Study**

This research was meant to find answers to the following questions:

1- What are the EFL speaking skills required for 1st year preparatory stage pupils?
2- What are the computer edutainment activities necessary for developing 1st year preparatory pupils' EFL speaking skills?
3- What is the effectiveness of computer edutainment activities in developing 1st year preparatory pupils' EFL speaking skills?

**Purpose**

This research was meant to accomplish the following:

"Investigating the effectiveness of using computer edutainment in developing 1st year preparatory stage pupils' EFL speaking skills ".

**Hypotheses**

The following hypotheses were tested in this study:

1. There is a statistically significant difference at 0.05 level between the mean scores of the control group and those of the experimental group in the post administration of the speaking test in favor of the experimental group.
2. There is a statistically significant difference at 0.05 level between the mean scores of the experimental group's pre and post administration of the speaking test in favor of the post-test.

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Significance
The present study is significant as follows:
1. Helping language teachers and practitioners to review the current practices and use of computer edutainment.
2. Including a list of required speaking skills for 1st year preparatory pupils to be considered by English language teachers, instructors, and curriculum planners whether preparing and designing speaking activities appropriate for them, and even while assessing their overall speaking skills.
3. Giving preparatory school teachers a clear understanding of the importance of computer edutainment and speaking techniques, as well as some practical procedures for teaching speaking to first-year preparatory pupils.
4. Paving the way for conducting similar studies at the university level. This can be done by building upon the results of the proposed study.

Method of the Study
Participants
The participants of the present study were first year preparatory stage sixty pupils. There were selected during the 2nd semester of the academic year 2019-2020. It was five weeks in duration; starting from 9th February to 14th March before lock down due to Corona pandemic. The sample was comprised of two classes; one of them was assigned to the experimental group (n = 30) and the other to the control group (n = 30). The pupils were thirteen years old. They started learning English in the first year in the governmental primary schools and lasted for six years.

Design
The present study is a quasi-experimental one. Two groups of pupils at the 1st year preparatory stage were chosen; one as the experimental group and the other as the control group of the study. The experimental was taught through the proposed program using computer edutainment activities for developing their speaking skills. The control group, on the other hand, received instruction through the regular method. A speaking test was administrated to the two groups before and after the treatment.
Instruments

Three instruments were designed by the researcher and used in this study, namely:
1- An EFL speaking skills checklist to identify the EFL speaking skills required for 1st year preparatory pupils.
2- An EFL speaking test to measure the speaking proficiency of both the experimental and control groups before and after the treatment.
3- An EFL speaking skills rubric to score pupils' speaking responses on the pre and post speaking test.

Instruments were validated and their reliability was established before using them in the study.

The Experimental Treatment

Pre administration

To control variables before starting the treatment, the findings of the pre-test were statistically analyzed to see whether there were statistically relevant variations in speaking between the control and experimental classes. To equate the two groups in terms of overall speaking proficiency and speaking sub-skills, a t-test for independent groups was used.

On the pre-test, no statistically significant differences in overall speaking were found between the control and experimental classes, as shown in the following table.

Equivalence of the two groups on the EFL speaking test (pre-administration)

The speaking test was pre administrated to make sure that the pupils of the two groups were equivalent in their speaking skills.t-test was used to measure equivalence between the experimental group and the control group on the pre-speaking test. (table 2)
Table (2) Comparing the speaking performance of the experimental group on the EFL speaking pre-test

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>Group</th>
<th>N.of cases</th>
<th>Means</th>
<th>S.D</th>
<th>df</th>
<th>T.Value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluency</td>
<td>Control</td>
<td>30</td>
<td>6.27</td>
<td>0.94</td>
<td>58</td>
<td>0.435</td>
<td>0.66 Not Sig.</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>30</td>
<td>6.17</td>
<td>0.83</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>30</td>
<td>5.70</td>
<td>1.15</td>
<td></td>
<td>-0.34</td>
<td>0.73 Not Sig.</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>30</td>
<td>5.80</td>
<td>1.13</td>
<td>58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pronunciation</td>
<td>Control</td>
<td>30</td>
<td>6.10</td>
<td>0.99</td>
<td>58</td>
<td>-0.134</td>
<td>0.89 Not Sig.</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>30</td>
<td>6.13</td>
<td>0.94</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Content</td>
<td>Control</td>
<td>30</td>
<td>6.00</td>
<td>0.83</td>
<td>58</td>
<td>-0.311</td>
<td>0.76 Not Sig.</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>30</td>
<td>6.07</td>
<td>0.83</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocabulary</td>
<td>Control</td>
<td>30</td>
<td>5.90</td>
<td>1.12</td>
<td>58</td>
<td>0.382</td>
<td>0.70 Not Sig.</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>30</td>
<td>5.80</td>
<td>0.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grammar</td>
<td>Control</td>
<td>30</td>
<td>5.47</td>
<td>0.86</td>
<td>58</td>
<td>-0.850</td>
<td>0.40 Not Sig.</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>30</td>
<td>5.67</td>
<td>0.96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body language</td>
<td>Control</td>
<td>30</td>
<td>35.43</td>
<td>4.166</td>
<td>58</td>
<td>-0.20</td>
<td>0.84 Not Sig.</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>30</td>
<td>35.63</td>
<td>3.34</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is clear from the results of the table (2) in the pre-administration of the test, there were no statistically relevant variations between the mean scores of students in the experimental and control groups in all speaking test skills and the overall score of the test. Where all the values of (t) are not statistically significant. This means that the two groups are almost equivalent before administrating the strategy to them (and this indicates the parity that exists between the two groups in the pre application).

**Administration of the program**

This program was implemented on the experimental group during the second academic semester year 2019/2020. The pupils of the experimental group were very enthusiastic as it was their first time to be taught using computer edutainment activities. Having finished the program administration, the study instruments were used for the second time to administer the post-speaking test in order to find out the possible effectiveness of using computer edutainment activities in improving first year preparatory stage pupils’ speaking skills. Pupils' oral performance was scored and rated on the speaking test. Data were collected and analyzed statistically using appropriate statistical methods.

**Procedures and techniques of the program**

Except for the first session in the program (an introductory session), there were three main stages in dealing with each session. These stages are as follows:
1- The preparation stage
   It involves only the teacher. It consists of the following sub steps:
   1- Choosing videos, songs and puzzles that are suitable for the age of the preparatory stage pupils and related to their curriculum.
   2- Designing games that serve the goals of each lesson by a specialist in computer programming.

2- Administration stage
   At this stage, the teacher presents the designed computer edutainment activities to the pupils. In the computer laboratory, pupils sit in front of the computers to watch the videos, songs and respond to puzzles and games. They can replay them as much as they want. Also, they have the opportunity to repeat the difficult words which are confusing in pronunciation. Pupils enjoy the pronunciation of native speakers. Difficult vocabulary is combined with photos and actions to clarify the meaning. In this stage, the teacher moves as a facilitator. The great role is between the pupil and the computer.

3- Evaluation Stage
   In this stage, the teacher assesses the pupils' understanding using edutainment activities and games. The teacher asks them specific questions about the puzzle. These questions indicate the extent to which the session's objectives are achieved. During pupils' response to the questions, the teacher measures the improvement in the pupils' speaking skills.

Post administration of the program
   The researcher administrated the speaking test after conducting the treatment.

Definition of Terms
   1. Computer Edutainment
      Edutainment, according to Ramsey et al. (2006), is the act of heavily learning through a variety of media such as television shows, video games, films, music interactive, websites, and computer applications. The media is entertainment, while the content is education. They also claim that technology, especially computer software, is heavily used. It works well both inside and outside the classroom.
      In this study, edutainment refers to a video game package that allows students to learn while playing and thereby develop their ability to communicate. This could be accomplished by attracting students with brightly colorful animations, sound, and collaborative multimedia. Edutainment often conveys the following messages: Brain Fun, Play, and Learn.
Speaking skills

Hedge (2000) considered speaking as an ability by which people are measured when first impressions are made.

Khadidja (2010) defined speaking skill as a complex process of sending and receiving messages through the use of verbal expressions, but it involves nonverbal symbols such as gestures and facial expressions.

In the present study, Speaking is described as an interactive process in which the speakers express themselves orally, fluently and meaningfully using certain sub-skills (such as using proper grammar, pronunciation and vocabulary).

Results and Discussion

The results of the study are statistically interpreted in terms of the study's hypotheses and presented in light of the theoretical context and relevant research. The following are the findings of the analysis.

Hypothesis # 1: "There is a statistically significant difference between the mean score of the control group and that of the experimental group in the post administration of the speaking test in favor of the experimental group”.

The mean score of the two groups on the post-test was compared using t- tests for independent samples to check the validity of this hypothesis. The t-test findings supported the hypothesis statistically. See table (3).

Table (3): Comparing the control and the experimental group performance on the EFL speaking test

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>The group</th>
<th>N.of cases</th>
<th>Means</th>
<th>S.D</th>
<th>df</th>
<th>t.value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluency</td>
<td>Control</td>
<td>30</td>
<td>6.40</td>
<td>0.89</td>
<td>58</td>
<td>-18.37</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>30</td>
<td>12.63</td>
<td>1.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pronunciation</td>
<td>Control</td>
<td>30</td>
<td>5.83</td>
<td>1.05</td>
<td>58</td>
<td>-17.50</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>30</td>
<td>11.83</td>
<td>1.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Content</td>
<td>Control</td>
<td>30</td>
<td>6.10</td>
<td>0.80</td>
<td>58</td>
<td>-23.78</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>30</td>
<td>13.10</td>
<td>1.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocabulary</td>
<td>Control</td>
<td>30</td>
<td>5.93</td>
<td>0.74</td>
<td>58</td>
<td>-28.58</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>30</td>
<td>13.37</td>
<td>1.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grammar</td>
<td>Control</td>
<td>30</td>
<td>5.77</td>
<td>0.90</td>
<td>58</td>
<td>-22.84</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>30</td>
<td>13.20</td>
<td>1.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body language</td>
<td>Control</td>
<td>30</td>
<td>5.37</td>
<td>0.72</td>
<td>58</td>
<td>-32.73</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>30</td>
<td>13.73</td>
<td>1.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Test</td>
<td>Control</td>
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<td>35.40</td>
<td>3.11</td>
<td>58</td>
<td>-32.69</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>30</td>
<td>77.87</td>
<td>6.40</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Correlation is significant at 0.01

It is clear from the results of the table (3) that the mean score of pupils in the experimental and control groups in all speaking test skills, as well as the overall score of the test, vary statistically significantly. All of the (t) values in the experimental group are statistically significant at the (0.01)
level, indicating that the findings are in favor of the experimental group. These results confirm the validity of the first hypothesis. These differences could be ascribed to the effect of the proposed program.

Results revealed for this hypothesis were in line with the results of Torky (2006) and Matter (2013) who concluded that using communicative tasks can help enhance learners’ speaking skills.

**Hypothesis # 2: “There is a statistically significant difference between the mean score of pupils of the experimental group in the pre and post administration of the speaking test (skills and total score) in favor of the post administration”**

$t$-tests for paired groups were used to assess the relative degree of improvement fostered by the introduction of the proposed computer edutainment practices from the pre-test to the post-test for the experimental community. The experimental group’s mean score on the pre-test and post-test in overall speaking performance was compared using these $t$-measures. (See Table 4)

**Table (4) Comparing the experimental group speaking performance on the pre - and post administration of the EFL speaking test**

<table>
<thead>
<tr>
<th>variables</th>
<th>The practice</th>
<th>N.of cases</th>
<th>Means</th>
<th>S.D</th>
<th>df</th>
<th>t.Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluency</td>
<td>pre – test</td>
<td>30</td>
<td>6.17</td>
<td>0.83</td>
<td>29</td>
<td>-21.13</td>
</tr>
<tr>
<td></td>
<td>post – test</td>
<td>30</td>
<td>12.63</td>
<td>1.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pronunciation</td>
<td>pre – test</td>
<td>30</td>
<td>5.80</td>
<td>1.13</td>
<td>29</td>
<td>-17.37</td>
</tr>
<tr>
<td></td>
<td>post – test</td>
<td>30</td>
<td>11.83</td>
<td>1.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Content</td>
<td>pre – test</td>
<td>30</td>
<td>6.13</td>
<td>0.94</td>
<td>29</td>
<td>-27.22</td>
</tr>
<tr>
<td></td>
<td>post – test</td>
<td>30</td>
<td>13.10</td>
<td>1.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocabulary</td>
<td>pre – test</td>
<td>30</td>
<td>6.07</td>
<td>0.83</td>
<td>29</td>
<td>-30.36</td>
</tr>
<tr>
<td></td>
<td>post – test</td>
<td>30</td>
<td>13.37</td>
<td>1.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grammar</td>
<td>pre – test</td>
<td>30</td>
<td>5.80</td>
<td>0.89</td>
<td>29</td>
<td>-23.65</td>
</tr>
<tr>
<td></td>
<td>post – test</td>
<td>30</td>
<td>13.20</td>
<td>1.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body language</td>
<td>pre – test</td>
<td>30</td>
<td>5.67</td>
<td>0.96</td>
<td>29</td>
<td>-28.07</td>
</tr>
<tr>
<td></td>
<td>post – test</td>
<td>30</td>
<td>13.73</td>
<td>1.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Test</td>
<td>pre – test</td>
<td>30</td>
<td>35.63</td>
<td>3.34</td>
<td>29</td>
<td>-35.13</td>
</tr>
<tr>
<td></td>
<td>post – test</td>
<td>30</td>
<td>77.87</td>
<td>6.40</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Correlation is significant at 0.01

It is clear from the results of the table (4) that there is a statistically significant difference in the mean score of pupils in the experimental group in all sub-skills of the speaking test before and after administration, with the overall score favoring the post administration. where all the values of (t) are statistically significant at the 0.01 level. These results validate the third hypothesis.

Results revealed for this hypothesis were in line with the results by Sen (2016) who concluded that using video self-modeling has positive
fluent speaking as well as other benefits. And Raheem (2011) who showed that computer edutainment activities contributed significantly in enhancing 2nd primary graders' learning of writing skills. This means that the computer edutainment activities were effective in enhancing the pupils' speaking skills.

**Estimating of effect size:**

To determine the effect size of the program on speaking, the researcher used the effect size scale ($\eta^2$) as shown in a table (4). Abu Hatab and Sadiq (1991) mentioned that there is a rule based on experience suggested by (Cohen) to evaluate the effect of the independent variable on the function as following:

A- The effect that explains about 1% of the total variance indicates little effect.

B- The effect that explains about 6% of the total variance indicates an average effect.

C- The effect that explains about 15% of the total variance indicates a significant effect.

1- IF $\eta^2 \geq (15\%)$ then Effect size is High

2- IF $6\% \leq \eta^2 < (15\%)$ then Effect size is Medium

3- IF $\eta^2 < (6\%)$ then Effect size is Low

**Table (5) The Effect Size of the program on enhancing the speaking skills of the experimental group**

<table>
<thead>
<tr>
<th>Effect size</th>
<th>$\eta^2$</th>
<th>Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>0.939</td>
<td>Fluency</td>
</tr>
<tr>
<td>High</td>
<td>0.912</td>
<td>Pronunciation</td>
</tr>
<tr>
<td>High</td>
<td>0.962</td>
<td>Content</td>
</tr>
<tr>
<td>High</td>
<td>0.969</td>
<td>Vocabulary</td>
</tr>
<tr>
<td>High</td>
<td>0.951</td>
<td>Grammar</td>
</tr>
<tr>
<td>High</td>
<td>0.964</td>
<td>Body language</td>
</tr>
<tr>
<td>High</td>
<td>0.977</td>
<td>Total Test</td>
</tr>
</tbody>
</table>

It is clear from table (5) that the edutainment-based program has a strong effect on enhancing the speaking skills of the experimental group pupils. Value of ($\eta^2$) ranges between (0.91 and 0.98). This means that the use of the proposed program activities is responsible for the improvement of the pupils' speaking skill by 91-97%.

Results shown in tables (7, 8) are in line with the results presented in the previous study of Farag (2016), Sen(2015) and Oradee (2012) who
concluded that the use of communicative skills has considerably improved students' speaking skill.

**Conclusion**

Based on the previous analysis of the study results and the discussions, it may be claimed that computer edutainment activities are very important in enabling pupils to improve their speaking skills to English as a foreign language.

**Recommendations of the study**

Based on the results and conclusions of the study, the following recommendations are suggested:

1. EFL teachers should be encouraged to use computer edutainment activities, in order to help their pupils to learn EFL speaking skills more efficiently.
2. EFL teachers should enrich English curricula using computer edutainment activities to motivate pupils to speak English during lessons.
3. School administrators should offer all facilities needed in the classroom and computer lab to make the educational process easier and more interesting.
4. Interaction in the language classroom appears to decrease pupils’ anxiety in learning English speaking skills.
5. Teacher should construct a variation of English-speaking activities which motivate the pupils to learn.
6. It is vital to engage pupils in the learning process through various strategies that address the needs of diverse pupils at different learning levels.

**References**


قائمة المصادر العربية:
