The effect of CALL proposed Program on University Students' Achievement in English

Ali Sabah Jameel Al-Khayyat
Department of English Language
Faculty of Education
University of Anbar, Iraq

Abstract
The study aimed at investigating the impact of CALL program on the Iraqi students' achievement in English. The participants of the study were 38 students from the Second stage at the English Department who were purposefully chosen from Cihan University in Sulaymaniyah province in the Kurdistan of Iraq. They were assigned to an treatment group and to a control group. Seventeen students (who had laptop computers) were assigned to the experimental (treatment) group, and 21 students to the control group. The instruments of the study is a CALL program (JavaScript), and pre-post achievement test. The findings of the study indicated that using CALL had a positive effect on the experimental group students' achievement. Based on the results of the current study, the researcher presented some recommendations in this paper.

Keywords: CALL program, E-learning, TEFL via technology , UNECEF computer program, computerized text.
Background of the Study
In August 1990, the United Nations Security Council imposed economic sanctions on Iraq, with Resolution 661 of August 6, 1990. These sanctions ended in May 2003. Ever since that same month, in which the war which was launched by Coalition Forces against Iraq ended, the country has been under occupation. UNESCO reports that prior to the first Gulf War in 1991 Iraq had one of the best educational performances in the region. Primary school Gross Enrollment Rate was 100% and literacy levels were high. Since that time education has suffered as a result of war, sanctions, and instability; it has been seriously affected by both the sanctions and the war (De Santisteban, 2005; UNESCO, 2008).

The occupation and subsequent events, most notably the armed conflict currently taking place between resistance guerrillas and occupation soldiers, inhibit the reconstruction of the education system. Ongoing instability has dramatically hindered the normal operation of schools and educational activities. The system has suffered as a result of widespread violence, power cuts and lack of appropriate teaching conditions in many education centers. Thus, the education system in Iraq has been affected by these policies in two ways. First, it has been one of the targets of both military action and the sanctions. Second, the sanctions have had the gravest consequences not only for current, but also for future generations.

Introduction
As information and communication technology (ICT) has quickly become one of the basic building blocks of modern society; many countries now regard understanding ICT and mastering its basic skills and concepts as a part of the core of education, alongside reading, writing and numeracy (UNESCO, 2007). Iraq, like many other nations, faces many challenges in installing and integrating ICT into the learning process in schools. Improving education quality to Iraqi students is a primary focus for UNESCO Iraq Office to be able to bring Iraq into the 21st Century and strengthen its human capital. Implementing the International Computer Driving License (ICDL) program will offer excellent opportunities to improving education and government employee performance/ UNESCO, UNESCWA and Iraq's Ministry of Education endorse ICDL for ministry teachers and staff (UNESCO, 2009).

The UN’s responses to the education needs of all parts of Iraqi society are extensive and varied. To support education sector governance, an education management information system has been set up with support from UNESCO and UNICEF to assist the Ministry and Directorates of Education in monitoring progress in education (UNICEF, 2006). UNESCO, in partnership with UNESCWA, is developing e-learning resources and training courses to ensure a better educational system in Iraq. Their goals are to build an educational project. The ICT in Education for Iraq project is designed to build sustainable capacity in Iraqi Ministry of Education for the continuing quality improvement of teaching and learning, focusing on the use of ICT. In order to improve ICT literacy and skills of the Ministry of Education staff, teachers, and students, the institutional capacity of the Ministry of Education will be enhanced to design, develop, and distribute a variety of e-learning resources, accompanied by programs of teacher professional development to implement such resources (Stensgaard, 2007).

As part of Iraq Development Project UNESCO - Iraq Office recently signed a contract with ICDL GCC Foundation to implement the ICDL digital literacy global standard in the Iraqi educational system under the umbrella of the existing national project called 'ICT in Education for Iraq. ICT in Education for Iraq is a project currently implemented (2007-2011) by both UNESCO and UNESCWA, and is designed to build sustainable capacity in Iraqi MOE for the...
continuing quality improvement of teaching and learning, focusing on the use of ICT. In order to improve the ICT literacy and skills of the MOE staff, teachers, and students, the institutional capacity of the MOE will be enhanced through this project to design, develop, and distribute a variety of e-Learning resources, and accompanying programs of teacher professional development to implement such resources. It will also strengthen the capacity of Iraqi educational system to use digital tools effectively for teaching and learning through the establishment of six ICT Development Centers, two in Baghdad and the rest in four different governorates in Iraq (Erbil, Ninawa, Basra, and Najaf) to train school teachers and other educators. The ICDL program implementation, as part of UNESCO and UNESCWA "ICT in Education for Iraq" project will support the Iraqi MOE efforts to use ICT to improve educational outcomes and to prepare Iraqi young people to compete in a global economy. The ICDL program implementation in Iraq MOE relies on ICDL GCC Foundation's expertise in supporting primary and secondary school teachers to integrate ICT in education and improve learning outcomes (Stensgaard, 2007).

The researchers believe that the United Nation (UN) with the Government of Iraq and its partners will continue to provide its full support and commitment to increase access to quality education as a lifelong experience in accordance with Iraq’s development goals.

Computer Assisted Language Learning (CALL) Program

It is worth noting here Beatty’s (2003) notion that it is difficult to describe CALL as a single idea because it has a broad range of activities and covers many issues such as materials design, technologies, pedagogical theories, and modes of instruction.

The field of language teaching has witnessed some changes and developments recently. One of the most significant recent developments influencing the teachers and the learners in language education programs is the pedagogical educational technology, in particular the use of computers in the language classroom (Chapelle, 2009). As Warschauer and Healey (1998) point out, CALL is not a new development in language teaching, as it has been used since 1960s. Behaviourist CALL was implemented in the 1960s and 1970s, when the Audio-lingual method was mostly used, and provided students with drills and practice. This model used the computer as a tutor, presenting drills and non-judgmental feedback. Based on the communicative approach, communicative CALL focuses more on using forms rather than on the forms themselves. The communicative CALL programmes provide skill practice in a non-drill format, through language games, reading and text reconstruction. This approach still uses the computer as a tutor, although it gives students choices, control and interaction. Another CALL model used for communicative activities involves the computer as stimulus, as in programmes that stimulate writing or discussions, and which may not be specifically designed for language learners.

Finally, communicative CALL also uses the computer as a tool, in programmes that do not provide language material, but enable the learner to understand and use the language, such as word processors, desk-top publishing, spelling and grammar checks programmes, as used for instance in process writing. The new modern language learning methodology has integrative CALL, which is based on multimedia computers and the Internet. These technological developments have brought text, graphics, sound, animation and video to be accessed on a single inexpensive computer.

The scope of CALL includes a wide variety of instructional functions. These have to be realized in terms of a limited number of CALL modes. The CALL functions to be performed and a selection of the CALL modes available for their implementation are: management of learning,
The effect of CALL proposed Program on University Students' Al-Khayyat

testing, tutoring, exercising, use of a computer as laboratory, use of a computer for producing teaching materials, dissemination of material, archival of material, and medium of expression. While the CALL modes are: problem solving; drill and practice; inquiry mode; simulation; gaming; tutorial mode; and dialogue mode. Each of those functions and modes is applicable to all levels of education and training (Barker and Yeates, 1985).

The big question now is "should CALL be utilized in the Iraqi context or not?" To give a clear “Yes, of course!” or “No, of course not!” The researcher will try to answer this question throughout investigating the effect of using CALL in teaching the English language and also will derive the answers from the students' perceptions of using CALL in their teaching of the English language.

Currently in Iraq, it is notable that the UNICEF, UNESCO, and the Ministry of Education have adopted certain plans to improve the teaching of English in the public schools. The use of computers and technology products has become a priority. To attain this goal, the Ministry of Education encourages teachers to be enrolled in computer courses like ICDL, word links, and Internet. It is expected that this study will add a foundation stone to the efforts that aim to construct a reasonable and flexible CALL, which may help in developing learners' achievement integrating the four language skills when learning and teaching English.

Statement of the Problem
The researchers noticed that in spite of the efforts made by the Iraqi Ministry of Education, UNESCO, and UNECEF to develop the educational system in Iraq, Iraqi students were still suffering from low achievement in English. It seems that the current methodology employed in the Iraqi schools, especially at primary stages does not enhance the students' abilities to develop their achievement level in English. The researchers think that the use of technology in general and CALL in specific may help in changing this situation. Therefore, this study is designed to measure the effectiveness of a computerized language learning program on the achievement of the primary children in English.

Purpose of the Study
This study aims at investigating how CALL can be effectively integrated into English teaching in the Iraqi context to develop the level of competence and performance of the university students. Moreover, it considers some of the advantages and disadvantages of using CALL problems that go with the use of CALL in learning English are also be detected.

Question of the Study
This study aims to answer the following question:
Are there any statistically significant differences at (α= 0.05) between the mean scores of the experimental and control groups on the achievement test in English of the Iraqi university students' using computerized materials and those using conventional materials?

Significance of the Study
Integrative CALL started from the 1990s and tried to integrate the teaching of language skills into tasks or projects to provide direction and coherence. Integration of computers to support the learning environment in teaching language is still in its infancy in Iraq. Its implementation may change both the instructional strategy and also the teaching and learning environment.
The effect of CALL proposed Program on University Students' 

Al-Khayyat

To the best of the researcher's knowledge, no studies have been carried out on using computer to integrate the four language skills when teaching English to the University students in general, and English department in particular in Kurdistan of Iraq. The researcher; therefore, has designed a CALL program to be at teachers' and students' disposal, which they can use when teaching and learning English in the classroom. The students and their parents can use this program easily at home to speed up their learning skills according to their learning abilities.

The Ministry of Education and teachers of English may benefit from the present study. The Ministry of Education could benefit from the results of the study, which may be a good indicator of utilizing CALL in the public and private universities. Moreover, the teachers may benefit from the program to utilize new techniques for teaching English via computer. They may also benefit from this study in designing new computer programs to teach the other language skills and aspects. The UNESCO and UNICEF may benefit from the study to find out if their efforts and objectives have been achieved since they started the program to improve the educational system in Iraq.

Limitations of the Study
There are several limitations of this study. The researcher may summarize these limitations in the following points:

1- The sample of this study is limited to the second stage at English department at Cihan University.

2- The results of the study are limited by the time for the period in which the study was conducted as technology and its applications may change dramatically in the near future.

3- The material of the study is derived from the "Real Listening and Speaking" textbook.

4- The time of the study is limited for the period of the first semester 2014.

Review of Related Literature
To reveal the effect of multimedia, Raphan (1996) developed a multimedia CALL program used to determine how EFL students would handle the multimedia screen with simultaneous audio, visual, and note taking. The result showed that students adapted to the multimedia information quickly. Additionally, students interacted positively with the system, practiced grammar and vocabulary in context and commented on the usefulness of the individualized instruction. Furthermore, students’ listening comprehension and vocabulary improved. There was also an improvement in their reading ability.

AbuSeileek (2004) designed a CALL program and tested its effect on student's writing ability in English. He concluded that students using computers in learning writing skills achieved higher scores than those who studied the same skills in the conventional method.

In order to improve spoken language competency, Jiang and Ramsay (2005) believed that CALL applications must reproduce the social interaction that lies at the heart of language learning and language use. They utilized CALL in the learning of second language to explore whether CALL can be used to extend opportunities for rapport building in language teaching beyond the face-to-face interaction of the classroom (rapport's importance lies in its potential to enhance learning, motivate learners, and reduce learner anxiety). The results suggested that CALL may help foster learner-teacher rapport and that scaffolding, such as strategically composing rapport-fostering questions in sound-files, was conducive to this outcome.

CALL also can improve students' reading abilities as shown in Huang (2007) who pointed out that adult L2 learners were often encouraged to acquire new words through reading.
in order to promote language proficiency. The results showed that learners improved their vocabulary scores after using the reading program. The online extensive reading syllabus demonstrated that such a design for a reading program is technically feasible and pedagogically beneficial and provides value in both vocabulary gains and learner satisfaction.

Shdaifat (2006) investigated the effect of using computerized instructional games on EFL second-grade pupils' learning of vocabulary. The major findings of the study indicated that using the computerized instructional games has a positive effect on students' learning of vocabulary. Murphy (2007) described an ongoing project to create an online version of a reading programme, a custom-designed English language proficiency course at a university in Japan. Students were randomly selected from upper and lower levels of English proficiency. Some students worked in pairs and some alone. The results showed that the interaction between type of feedback and manner of study (individual or pair work) was statistically significant; students performed best on a follow-up comprehension exercise when in pairs and having been provided with Elaborative feedback. Furthermore, it was found that elaborative feedback was conducive to quality interaction.

Abdel Halim (2009) investigated the effect of CALL on the first secondary students' reading comprehension achievement in English at public schools in Jordan. Results of analysis showed a significant difference between CALL users and nonusers in favor of the experimental group (computer users). Results of this study have provided evidence for the effect of CALL on learning English.

Participants of the Study
The study was conducted at Cihan University in Sulaymaniyah province in the Kurdistan of Iraq. The total number of participants at second stage was 38 students. The participants were chosen purposefully, because the regulations of the university do not allow to mix the groups and choose randomly sample. The researcher divided the participants into two groups, experimental and control. The control group composed of 17 students who were not using laptop computers. The treatment group consisted of 21 students who were using laptop computers.

Table 1. Distribution of the participants according to the variable of the study (method of teaching).

<table>
<thead>
<tr>
<th>Group</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>17</td>
<td>64.3</td>
</tr>
<tr>
<td>Treatment</td>
<td>21</td>
<td>35.7</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The Instructional Program
The researcher developed an instructional program taken from Real Listening and Speaking 3 textbook, by Miles Craven. The units taken were: How's it going, I need to see a doctor, What's the problem?, and I'd appreciate it. These units were analyzed and redesigned in a computerized manner where the questions and answers were accessed through this program to facilitate the learning process for the students. The design and development of the program was made with the help of a computer's design expert to fit the level of the students.

The CALL program was organized into four sections, which corresponded to the four main areas of language use. The four sections were: Listening, Speaking, Reading, and Writing. The program was designed to develop these four skills. Texts were designed to help the students...
The effect of CALL proposed Program on University Students' reading skills, photos were included to promote responses and help the students to practice their speaking skills, icons linked to recordings were embedded in the program to help the students to practice their listening skills, and finally, there were model texts which designed to help the students to practice their writing skills. The students could go directly to the activity they wanted to learn by clicking on the icons which were located on the top of the screen.

Validity of the Program
After being designed with the help of a computer expert, the program was reviewed by a panel of three university professors from Baghdad University (Dijlah College), and computer experts. The panel suggested certain changes related to color, structure, and the animation of icons. These changes were made and the program was given back to the panel. They all accepted the modification made to the program.

Variables of the Study
This study consists of the following variables:
1. The independent variable is the method of teaching which has two levels: the computerized instructional program and the traditional method.
2. The dependent variable is the students' achievement scores on the post-test in listening, speaking, reading, and writing.

Results Related to the Question of the Study
To answer the question, "Are there any statistically significant differences at (α= 0.05) between the mean scores of the experimental and control groups on the achievement test in English of the Iraqi university students' using computerized materials and those using conventional materials?"

The means and standard deviations were calculated for students' overall achievement score of pre- and posttest according to the independent variable (teaching method: CALL and conventional). In addition, adjusted means and standard errors of students' scores on the posttest were computed as seen in Table 2.

Table 2. Means and standard deviations of students' scores on overall achievement on pre- and posttest

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Achievement (Covariate)</th>
<th>Posttest Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>Std. Dev.</td>
</tr>
<tr>
<td>Control</td>
<td>17</td>
<td>37.444</td>
<td>4.76</td>
</tr>
<tr>
<td>Treatment</td>
<td>21</td>
<td>39.720</td>
<td>5.81</td>
</tr>
</tbody>
</table>

Table 2 shows that there are observed differences between the two means of the participants' achievement score on posttest due to the level differences of the independent variable of the study (teaching method). To examine the significance of these observed differences, the researcher used ANCOVA to compute participants' overall achievement scores of the posttest according to the study independent variable (teaching method) after neutralizing students' performances on overall achievement scores on pre-test scores as seen in Table 3.


Table 3. Results of ANCOVA for students' overall achievement scores according to the study variable

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement (Covariate)</td>
<td>357.011</td>
<td>1</td>
<td>357.011</td>
<td>2.221</td>
<td>0.141</td>
<td>3.21%</td>
</tr>
<tr>
<td>Group</td>
<td>15019.760</td>
<td>1</td>
<td>15019.760</td>
<td>93.455</td>
<td>0.000</td>
<td>58.24%</td>
</tr>
<tr>
<td>Error</td>
<td>10768.029</td>
<td>67</td>
<td>160.717</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>27871.443</td>
<td>69</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 shows that there are observed differences at (α= 0.05) between adjusted means of the post-test scores for the overall students' achievement scores due to the study independent variable (teaching method) in favor of the experimental group that learned via CALL program in comparison with the control group, that learned by the conventional method. The effect-size of the study variable (teaching method) was 58.24%, which means that there was a great relationship between the variable of the study and the overall students' achievement scores on posttest according to the criteria of Cohen (1988). In addition, means and standard deviations were computed for the pre- and post- test scores of the participants' subscores (that is the sub scores of listening, speaking, reading and writing skills) according to the study independent variable. In addition, the adjusted means and standard errors of the students post- test scores were computed as seen in Table 4.

Table 4. Means and standard deviations for the pre- and post-test scores on students' achievement sub-scores of test

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>Std. Dev</td>
</tr>
<tr>
<td>Reading</td>
<td>Control</td>
<td>10.044</td>
<td>1.54</td>
</tr>
<tr>
<td></td>
<td>Treatment</td>
<td>10.760</td>
<td>3.27</td>
</tr>
<tr>
<td>Writing</td>
<td>Control</td>
<td>9.244</td>
<td>2.04</td>
</tr>
<tr>
<td></td>
<td>Treatment</td>
<td>9.160</td>
<td>1.68</td>
</tr>
<tr>
<td>Speaking</td>
<td>Control</td>
<td>9.022</td>
<td>2.32</td>
</tr>
<tr>
<td></td>
<td>Treatment</td>
<td>10.120</td>
<td>1.74</td>
</tr>
<tr>
<td>Listening</td>
<td>Control</td>
<td>9.133</td>
<td>1.98</td>
</tr>
<tr>
<td></td>
<td>Treatment</td>
<td>9.680</td>
<td>2.12</td>
</tr>
</tbody>
</table>

Table 4 shows that there are observed differences between the means of students' achievement scores on the sub-scores of the pre-test due to the different levels of the independent variable (teaching method). To decide which type of analysis the researcher should use (MANCOVA, or ANCOVA), the researcher used Bartlett's test of Sphericity; the results are presented in Table 5.

Table 5. Correlation coefficient among students' sub-scores of post-test and the results of Bartlett's test

<table>
<thead>
<tr>
<th>Correlation</th>
<th>Reading</th>
<th>Writing</th>
<th>Speaking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing</td>
<td>0.85</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speaking</td>
<td>0.73</td>
<td>0.89</td>
<td></td>
</tr>
</tbody>
</table>
The effect of CALL proposed Program on University Students’

Al-Khayyat

Table 5 shows that there is a significant correlation at ($\alpha = 0.05$) among students subscores posttest according to the independent variable of the study (teaching method). It indicates that MANOVA should be used on students’ achievement scores on the sub-scores of the posttest according to the variable of the study (teaching method) after neutralizing students’ performances effect on the pre-test as seen in Table 6.

Table 6. Students’ achievement sub-scores test according to the study independent variable

<table>
<thead>
<tr>
<th>Effect</th>
<th>MANOVA test</th>
<th>Value</th>
<th>F</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
<th>Partial $\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading (Covariate)</td>
<td>Wilks’ Lambda</td>
<td>0.938</td>
<td>1.002</td>
<td>4</td>
<td>61</td>
<td>0.413</td>
<td>6.17%</td>
</tr>
<tr>
<td>Writing (Covariate)</td>
<td>Wilks’ Lambda</td>
<td>0.931</td>
<td>1.137</td>
<td>4</td>
<td>61</td>
<td>0.348</td>
<td>6.94%</td>
</tr>
<tr>
<td>Speaking (Covariate)</td>
<td>Wilks’ Lambda</td>
<td>0.857</td>
<td>2.547</td>
<td>4</td>
<td>61</td>
<td>0.048</td>
<td>14.31%</td>
</tr>
<tr>
<td>Listening (Covariate)</td>
<td>Wilks’ Lambda</td>
<td>0.975</td>
<td>0.395</td>
<td>4</td>
<td>61</td>
<td>0.811</td>
<td>2.53%</td>
</tr>
<tr>
<td>GROUP</td>
<td>Hotelling’s Trace</td>
<td>1.609</td>
<td>24.530</td>
<td>4</td>
<td>61</td>
<td>0.000</td>
<td>61.66%</td>
</tr>
</tbody>
</table>

Table 6 shows a significant effect of the study independent variable (teaching method) at ($\alpha=0.05$) on the students' achievement sub-scores of the test.

To determine which sub-scores of the posttest have significant effect, ANCOVA was conducted on students’ performances on the sub-scores of the posttest separately according to the independent variable of the study (teaching method) after neutralizing the effect of students' performances on sub-scores pre-test as seen in Table 7.

Table 7. Results of ANCOVA on students’ achievement sub-scores of posttest according to the study independent variable

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Source</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial $\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>Reading (Covariate)</td>
<td>0.450</td>
<td>1</td>
<td>0.450</td>
<td>0.031</td>
<td>0.861</td>
<td>0.05%</td>
</tr>
<tr>
<td></td>
<td>Writing (Covariate)</td>
<td>0.063</td>
<td>1</td>
<td>0.063</td>
<td>0.004</td>
<td>0.948</td>
<td>0.01%</td>
</tr>
<tr>
<td></td>
<td>Speaking (Covariate)</td>
<td>35.223</td>
<td>1</td>
<td>35.223</td>
<td>2.422</td>
<td>0.125</td>
<td>3.65%</td>
</tr>
<tr>
<td></td>
<td>Listening (Covariate)</td>
<td>2.618</td>
<td>1</td>
<td>2.618</td>
<td>0.180</td>
<td>0.673</td>
<td>0.28%</td>
</tr>
<tr>
<td></td>
<td>GROUP</td>
<td>769.062</td>
<td>1</td>
<td>769.062</td>
<td>52.883</td>
<td>0.000</td>
<td>45.24%</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>930.739</td>
<td>64</td>
<td>14.543</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1933.771</td>
<td>69</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing</td>
<td>Reading (Covariate)</td>
<td>2.858</td>
<td>1</td>
<td>2.858</td>
<td>0.172</td>
<td>0.680</td>
<td>0.27%</td>
</tr>
<tr>
<td></td>
<td>Writing (Covariate)</td>
<td>6.235</td>
<td>1</td>
<td>6.235</td>
<td>0.374</td>
<td>0.543</td>
<td>0.58%</td>
</tr>
<tr>
<td></td>
<td>Speaking (Covariate)</td>
<td>9.020</td>
<td>1</td>
<td>9.020</td>
<td>0.542</td>
<td>0.464</td>
<td>0.84%</td>
</tr>
<tr>
<td></td>
<td>Listening (Covariate)</td>
<td>4.189</td>
<td>1</td>
<td>4.189</td>
<td>0.252</td>
<td>0.618</td>
<td>0.39%</td>
</tr>
<tr>
<td></td>
<td>GROUP</td>
<td>1087.836</td>
<td>1</td>
<td>1087.836</td>
<td>65.318</td>
<td>0.000</td>
<td>50.51%</td>
</tr>
</tbody>
</table>
The effect of CALL proposed Program on University Students’ Achievement

### Error
<table>
<thead>
<tr>
<th>Total</th>
<th>1065.885</th>
<th>64</th>
<th>16.654</th>
</tr>
</thead>
</table>

### Speaking
- Reading (Covariate): 9.186, 1, 9.186, 0.917, 0.342, 1.41%
- Writing (Covariate): 3.971, 1, 3.971, 0.396, 0.531, 0.62%
- Speaking (Covariate): 27.178, 1, 27.178, 2.713, 0.104, 4.07%
- Listening (Covariate): 0.040, 1, 0.040, 0.004, 0.950, 0.01%

### GROUP
- 930.493, 1, 930.493, 92.901, 0.000, 59.21%

### Error
| Total | 641.020 | 64 | 10.016 |

### Listening
- Reading (Covariate): 0.284, 1, 0.284, 0.026, 0.873, 0.04%
- Writing (Covariate): 33.975, 1, 33.975, 3.099, 0.083, 4.62%
- Speaking (Covariate): 31.795, 1, 31.795, 2.900, 0.093, 4.33%
- Listening (Covariate): 0.521, 1, 0.521, 0.048, 0.828, 0.07%

### GROUP
- 802.240, 1, 802.240, 73.164, 0.000, 53.34%

### Error
| Total | 701.759 | 64 | 10.965 |

### Total
|         | 1739.943 | 69 |

Table 7 shows that there are significant statistical differences at ($\alpha = 0.05$) between the adjusted means of the posttest scores of the students’ achievement sub-degrees of the test in Listening, Speaking, Reading, and Writing skills, due to the teaching method in favor of the students of the experimental group who were taught via CALL in comparison with the students of the control group who were taught via the conventional method. The effect size of the independent variable in post-test was as follows: (45.24% for reading proficiency, 50.51% for writing proficiency, 59.21 for speaking proficiency, and 53.34% for listening proficiency); which means that the relationship between the independent variable and students' achievement subscores is great (according to the criteria of Cohen, 1988).

**Discussion, Implementations and Recommendations**

*Discussion of the Results of the Question of the study*

The finding of the present study showed that there were statistically significant differences between the adjusted mean scores of the post response of the overall students' achievement test. This is due to the difference in the teaching methods: the computerized program versus the conventional method.

The results also revealed that there was a significant correlation among the four skills (listening, speaking, reading, and writing). The highest correlation was between speaking and writing (0.89), and the lowest correlation was between reading and listening (0.50). The above results revealed that the CALL program has been designed in an integrative way which Brown (2001), Omaggio (2001), Krashen (1997), and Ausubel (1968) focused on. The presentation of the materials in an integrative way via CALL has helped students to develop their proficiency in the four skills.

The researcher believes that the CALL program was designed to go with Krashen's Monitor Model Hypothesis. He suggested the "input hypothesis" which stated that input should be: comprehensible; interesting and relevant; delivered in safe and calm environment. Thus, students who learned via CALL have scored higher than those who learned via the conventional method, who were not exposed to comprehensible input.
Conclusion
In light of the results of the study, the researcher can say that the use of technology inside and outside the classroom tend to make learning more interesting, especially with adults and this is what Brown (2001) and Omaggio (2000) stressed. They believed that when the materials meet students' interests, learning will last for a long time. CALL has promoted learners' motivation and efforts by locating precisely the information which the learner needs and learns by himself, raises students' confidence, allows students to take calculated risks, and makes learning authentic and meaningful. These features provide the learner with real world context.

Pedagogical Implication
Based on the results of the study, the following implications can be drawn:

- The CALL program remains not an alternative but a complementary tool in reinforcing classroom activities.
- CALL could be a very useful tool in TEFL, provided that it supplements face-to-face language instruction, not replaces it.
- Teaching and learning can change through the use of technology.
- EFL teachers should enroll in specialized courses related to teaching via CALL.
- CALL might be used to facilitate the learning process by providing immediate feedback and clear instruction.

Recommendations
The researcher may put forth the following recommendations:

- The use of technology in language teaching should be investigated further. Researchers should conduct further studies on the effectiveness of CALL method on teaching language skills and other components of the language.
- The Iraqi teachers are advised to vary their methods, techniques and ways of teaching according to their students' needs and interests. They are also advised to use the computerized method more intensively and more frequently.
- The researcher recommend that EFL teachers use the CALL program in their teaching, since it enhances students' achievements as well as their attitudes toward teaching English via CALL.
- Curricula designers are recommended to include CALL in the English textbooks.

About the Author:
Ali Sabah Jameel Al-Khayyat Ph.D (English Language Curriculum and Instruction) Faculty of Education, Yarmouk University – Jordan. Instructor at University of Anbar, faculty of Education, English Language Department, Iraq since January, 2013. Teaching undergraduate and post graduate courses at English Department.

References
The effect of CALL proposed Program on University Students' Writing Ability


