The Effect of Computer Assisted Language Learning (CALL) on EFL High School Students’ Writing Achievement

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Abstract
Using computer in writing classrooms has been common at least for the last three decades. Applying computer in educational settings has accompanied with some inevitable problems. This study investigated the effect of Computer Assisted Language Learning (CALL) on EFL students’ writing achievement. Forty students in a high school in Iran were selected and divided into experimental and control groups (20 and 20 respectively). An independent sample t-test was run to find if there were any significant differences between the results of the experimental and control groups in the writing test. CALL users’ achievement in EFL were significantly higher than nonusers (df = 38, p≤.05). This significant difference between the two groups favoring CALL users was an indication of the effect of CALL on improving students’ knowledge and competency in EFL.

Keywords: Technology, CALL, Learning, Writing, Learner, Learning materials

1. Introduction
It is for some decades that computers have found their ways in educational settings and millions of dollars are spending on their acquisition and maintenance. The combination of text, audio and video “make multimedia an excellent format for learning materials and have led to the birth of an industry in computer-assisted language learning (CALL)” (Ayres, 2002, p. 256). CALL is a language learning and teaching approach in which the computer is used as a tool for presentation, assisting students, and evaluating material, and has an interactional element. As cited in Davies (2002), Levy (1997) emphasized that CALL is more extensively defined as the search for computer applications in language teaching and learning. CALL accepts the research finding of second language acquisition, sociology, linguistics, psychology, cognitive sciences, culture examinations, and natural language processing to
second language pedagogy and relates them to investigation into information processing, artificial intelligence, and telecommunication (CALICO, 2001). Thus, the progress of language teaching and learning processes is achieved.

From past to now, CALL developed in parallel with the facilities provided by computer technology. Many studies worldwide have been conducted to investigate the effect of CALL on learning languages. Computer-based instruction has been challenging traditional teaching and learning processes Jones (2001) expresses the importance of computer technologies in foreign language learning and teaching has been established by many people. Language teachers and administrators realize the aptness toward CALL; also, students demand computers through the facilities provided for language learning. CALL has been taking advantage of advanced technological facilities to create the highest interactive learning environments for activities that develop listening, speaking, reading, and writing skills. In the developed world, all language centres agree that it is not possible to make progress without high technology and computers.

From the beginning till today, the effectiveness of various CALL materials has been depended on pedagogical designs and the way teachers’ use these materials. When computers are appropriately used, they will improve the learning process in a different way (Warschauer and Healey, 1998). In parallel to advances in technology, computer and instructional technologies are becoming an indispensable part of the learning and teaching processes. The role assigned to instructional technologies in foreign language instruction has also changed with these advances. It seems that the role of computer in education and pedagogical practices will become more and more significant and inevitable in the twenty-first century. English language pedagogy benefits from using computers at every level of instruction.

Computer-assisted writing instruction, proposes an alternative method to the traditional ones. This approach may overcome some shortcomings of traditional methods of writing to some extent by providing feedback about students’ mistake/errors, along with some explanations and suggestions. The feedback is a mechanical, grammatical and other formal language elements inaccuracies, which are assumed to affect one’s writing. It is noticeable that Coder (1967) introduces distinction between errors and mistakes. He describes mistake the result of performance factors such as fatigue, memory limitations, emotional strain, etc. The learner can readily correct mistakes as soon as his/her attention is drawn to them. But errors are systematic, consistent deviances representative of the learner’s linguistic system and evidence of his/her proficiency level. Such teaching and learning practices containing features such as self-discovery, invention and multiple drafting with feedback between drafts and a variety of feedback options from peers, small group, and/or teacher or through other formative evaluation can bring about a more process oriented approach in writing as illustrated by Grabe and Kaplan (1996).

Using computer in writing classes allows learners to receive feedback both from the teacher and computer. Computer provides the correct form of the erroneous word and structures that students have produced. Consequently, it seems writing is more error-free and cohesive sentences and texts can be produced by using computers. The learners will also become aware of the mistakes/errors they have made just as they type the sentences.

As much of the earlier studies have focused on the effectiveness of CALL, studies on the effect of CALL on the students’ writing achievement seems inadequate. Hence, to fill the gap in this area the purpose of this study is based on a main research question as follows:

1) Is there any significant difference in students’ writing achievements in EFL context between CALL users and nonusers due to treatment of regardless of instructor?

2. Literature Review

With regard to the use of computers in language teaching and learning, teachers and researchers have been testing and developing ways to implement computers in their teaching context since the 1960s
when computers were first introduced as part of language teaching. However, many language teachers continue to be uncertain about the manner in which they can effectively use computers in the educational context. In the late 1970s, CALL programs were quite “primitive” because they consisted mainly of question-answer sequences, and were not widely used at the tertiary level to limited hardware and software support (Davies, 2001:30). In the 1980s, there was an improvement in the use of CALL. Based on the observation and working experience in the National Center For CALL, Davies (2001) estimated that about 20% of lecturers at tertiary level had used CALL in classroom teaching. TESTMATER, GAPMASTER, CLOZEMASTERERE were some of the CALL packages used in the UK in the 1980s. The question type in those packages was changed to multiple-choice or gap-filling (Wolff, 1991).

In the early 1990s, in addition to the existing CALL packages, some language teachers at tertiary level shifted to use what Wolff called language-related programs. They were the programs which “processed language but which had no language learning purpose”. Word-processors, database systems, concordance programs were some examples (1991:318). Heap (1993) reported that in the past, he and his colleagues focused on the use of those commercial CALL programs such as “STORYBOARD” and “TEXTPLAY” to enhance language learning opportunities e.g. recycling vocabulary and helping students to see collocation and syntactic relationship within a text. Later on, they used the word processor, WORD PERFECT 5.1, in teaching writing because they believed that it can, unlike most CALL programs, give the students a tool which facilities their use and manipulation of the language.

It does not mean that the traditional CALL programs are useless. The CALL packages, CHOICEMASTER (for reading comprehension and listening skills), MATCHMASTER (for building vocabulary), and STORYBOARD (for writing skills) were used in addition to those existing teaching materials by Bayliss (1995) in her 14-week academic English program at Bond University because she believed that using the computer as a learning tool would add variety, speed and interest to the student learning process. Davis (2001) conducted a research on comparing two approaches to computer-assisted writing at University of Hawaii at Manoa. One group of students used word processing together with an additional text analysis program called CRITIQUE in essay writing while the other group just solely used word processing without CRITIQUE. The use of concordance program can be seen in the research done by Coleman in 1996. Coleman developed her CALL materials using the program called FUN WITH TEXTS. The third part of the program, “the teacher selection” provided the concordance program with which students were able to learn word collocation.

It seems that most of the research focused on facilitating integrated language learning or teaching a particular language skill (e.g. writing). In other word, research on CALL is inadequate as what Cheung & Harrison (1992) asserted that CALL is still a relatively new area in education, and research literature on CALL methodology and software evaluation is scarce. They made use of an interactive text-only adventure game, COLOSSAL ADVENTURE, to help a group of students studying at the Hong Kong Polytechnic master the three areas of the target language prepositions of place, program-specific lexical items and conditionals. Therefore, there is a research niche in the use of CALL in teaching oral and written skills especially in EFL contexts.

CALL research has been ongoing for decades investigating CALL use in different contexts and with different language worldwide. Its potential for language and teaching in the field of foreign languages has been discussed and documented by many researches (Crosby, 1997; Peterson, 1998; Vrtacnik et al., 2000). Charischak (2000) stated that for long time, basic drill and practice software programs dominated the market in CALL. Supporting this claim, Robert (2002) pointed out that the use of computers to assist learners in their language studies has increased phenomenally over the past decade. Cushoin and Dominique (2002) described how recent technological developments have provided the possibility of overcoming technical problems in conjunction with the Java programming language and Unicode character numbering system. Schwienhorst (2002) discussed Call and focused in the benefits of virtual reality environments, particularly foreign language contexts.
For many years, foreign language teachers have used the computer to provide supplemental exercises. Recently, due to technology advancement, teachers started to consider the use of computers as an essential part of daily foreign language teaching and learning. Technology has the potential to play a major role in foreign language teaching and learning. A lot of attention has been paid to the use of CALL in foreign language teaching and learning. In other words, CALL gained considerable attention from different entities including researchers and writers. Peterson (1998) stated that CALL has developed from small beginnings into a major element in many university language programs in Japan. The number of individual educators incorporating CALL materials into their classes has increased markedly. This increase of interest in CALL, and educational technology in general, has also been manifested in the increase in the number of CALL facilities created within universities and schools.

Some writers devoted whole books for the discussion of CALL. For example, Kulik (1991) stated that a meta-analysis of findings from 254 controlled evaluation studies showed that computer-based instruction (CBI) usually produces positive effects on students. The studies covered learners of all age levels from kindergarten pupils to adult students. In the year 1997, The Computer Assisted Language Learning Journal devoted a special issue, “The virtual learning environment” revived by Crossby (1997) for CALL environment and effect on learning and teaching. Following the same path, Levy (1997) reviewed wrote CALL projects from the 1960s to the1990s.

Conrad (1996) noted that there had been a meager output of CALL effectiveness research published by the recognized second language acquisition journals, and that the 19 empirical studies he did uncover represent almost as many different specific areas of CALL applications. Research conducted in this area has documented many positive effects on students’ achievement and learning. Recently, Jung (2002) presented a bibliography on CALL. Most citations were post-1997 journal articles and book publications.

In a similar vein, Bayraktar (2002) conducted a meta-analysis of effectiveness of computer assisted instruction (CAI) on student achievement in secondary and college science education compared to traditional instruction. Results showed a small positive effect for CAI use when used in simulation or tutorial models, with individual computer use, and when used as a supplement to traditional instruction. Following the same path, Noriko (2000) developed a language tutor program to develop learners’ grammatical and sentences production skills in Japanese language. The study revealed that students’ achievement improved tremendously. Likewise, Chikamatsu (2003) pointed out that CALL gains popularity and is becoming standard in foreign language classrooms. The researcher examined the effects of computers on writing efficiency and quality among intermediate learner of Japanese. One of the finding was that accuracy rates and number of Kanji characters used were significantly different, indicating that learners benefited from computer writing.

New technology offers the writers an excellent package of tools with which to prepare, organize and present documents. Computers can help writers in editing and setting layout and checking word such as spell checking and thesaurus. They can provide specialist tools such as grammar and reliability checkers (Seely, 1998). Sharples (1999) asserts “the computer as a tool for writing is just beginning to move out of its period of imitation”. It has a keyboard that was invented in the nineteenth century and a display that mimics paper in a manual typewriter.

Because word-processing program allows a wide range of formatting possibilities and make editing and revising much easier, they are of obvious use in teaching writing. Word-processors give writers the freedom to experiment with a text without making a mess. It means that one can make either major or minor changes in the text without retyping or rewriting the entire text (Brookes and Grundy, 2000). Barrass (1995) argues that word-processing can help one’s writing in all four stages of composition: thinking, planning, writing, and revising. He believes that they are used before and after writing as well as when one write. Before writing it allows the writer to prepare a topic outline, on the screen, and then add material under relevant heading and s/he can rearrange them if necessary as s/he decides how to organize his or her work. As one writes a word-processor will perform the following ;"
automatically format text; may provide a choice of fonts; inserts running heading and page numbers; may enable one to check spelling, syntax, and grammar; may provide advice on the choice of words and on the use of words, and may provide a thesaurus" (p.97). After writing one can check, correct, and if necessary revise his or her work, without the alternatives being apparent to the reader, and without his or her having to retype whole pages of text, and s/he can produce an attractive printout (Barrass, 1995). Typing a text word by word may help students to remember words or syntactic structures, spelling may improve and, it is probably more fun than copying a text using pen and paper (Sergeant, 2001).

3. Research Method

3.1. Participants

To determine the school where the research would be carried out, the most appropriate intensive foreign language high school for computer assisted instruction was selected using the stratified random sampling method. According to Young (1997), there may often be factors which divided up the population into sub-populations and we may expect the measurement if interest to vary among the different sub-populations. This has to be accounted for when we select a sample from the population in order that we obtain a sample that is representative of the population.

Participants in this study were 47 male and female EFL students in high school but 7 students were not found to be qualified for the study due to either low writing proficiency based on the results of the scores of their writing compositions or because they failed to attend CALL classes regularly. So, altogether just 40 participants remained for the final considerations. The age of the participants ranged from 17 to 19 with an average of 18. These students were randomly chosen from this high school grade one. The Participants were at intermediate level of proficiency as determined by language tests conducted by their teachers who cooperated in the data collection. All students at the time of the experiment were taking the “Advanced writing” classes on two different groups. “Advanced Writing” is the writing course in the curriculum which is offered with one and half an hour credit per week and only those students who successfully pass the pre-writing courses are permitted to take it. Although the students had already passed pre-writing English, they were supposed to be intermediate learners of English.

As the study was conducted in a model school, technology infrastructure and access was granted for all students. The school had a computer lab with a multimedia capability, a videoconferencing unit, a technology coordinator, and a computer engineer. This school pays special attention to technology into the curriculum. Computer is taught to all students as a subject. Students study computer application and learn different computer skills regularly. They spent at least two class periods weekly at the computer lab using numerous software application and productivity tools such as interactive multimedia CD-ROM s. Second, the majority of students in this study, as reported by the teachers, own their computers at home. Therefore, subjects experience with computers is sufficient enough to enable them to use CALL successfully.

Participants’ selection was random regardless of the classes. The final number of participants yielded 20 students in the experimental group and 20 students in the control group; a total of four classes. All subjects had the same learning situations such as the size of classroom, same text of English, same amount of exposure, and same availability of teaching aids. Two instructors were involved in the study with similar educational background holding master’s degrees in English, and having more than five years of teaching experience. Both instructors were English teachers, were proficient in English as measured by tests and interviews were conducted by the educational zone as part of the requirements to work in high school. Each instructor had one control group and one experimental group.
3.2. Instrumentations

In order to answer the questions of the study, the researchers used instructional software and material, achievement test and an attitude questionnaire.

3.2.1. Traditional Material

The traditional material consisted of one book called “Communication through Writing” edited by Margaret Pogemiller Coffey (1987). It was intended for intermediate learners. The teacher selected patterns to be taught in the traditional class. These patterns included: narration, explanation (including explaining graph, tables and diagrams), definition, description, argumentation, cause and effect, giving directions and problem-solving. Then the learners were required to write a free composition, to be submitted at the next session.

Both the control and experimental group had the same traditional materials as well as teacher’s feedback which was provided on their compositions. The feedback included underlining grammatical and mechanical mistake / errors and comments about the unity and organization of the text as well as marking vague sentences. Altogether, the learners of both the control and experimental groups received feedback from their teachers on the 15 papers which they submitted to their instructors during 15 sessions.

3.2.2. Call Material

In addition, group 2(experimental group ) attended CALL classes that were exposed to “WordPerfect, Office 2003, and Professional” has claimed that “WordPerfect has been and remains the clear choice for anyone who wants flexibility, control, sophistication, and up to date design elegance in word-processing software ” (advertised on the CD package). The software provided students with feedback about their mistake/errors such as spelling, capitalization, subject-verb agreement, adjective-noun agreement, etc. That is, the most important criterion for choosing a program for our CALL class was its qualitative and quantitative feedback value.

The main feature of “WordPerfect” was that it provided feedback while students were typing their previously written composition. The mistakes/ errors were underlined in red and the learners could either make corrections at once or postpone it to after typing the whole text. Every time a learner repeated the error s/he was provided with a feedback.

It also supplied the correct language forms for substituting the mistakes. The suggested correct alternatives were mostly from the same root or grammatical category as the mistake. The learner could make use of the suggestions or just ignore them. The software also contained an Oxford Learners Dictionary that could be used both while and after typing the text. There was no linear order for employing these parts by the learner and they were all available to him or her whenever needed.

While the learner made a mistake or typed something incorrectly according to the information supplied in the software, the erroneous form became underlined and the learner knew that it was wrong with that part of the text.

The first and the last composition written by the participants were regarded as a pretest and posttest. That is, the learner of both groups was first required to write a free composition during the first session. The last composition, the topic of which was again assigned by the instructors, was treated as a posttest. The second part of posttest was a questionnaires to evaluate scales to determine attitude toward CALL, perceived utility of using CALL , perceived knowledge gain of FEL before and after the use of CALL ,and intention to use CALL in future.

Two questionnaires were used as supplementary data elicitation instruments of the study. The first questionnaire designed for the control group had sixteen items on the five point Likert Scale. The second questionnaire which was designed for the experimental group had twenty eight items and like the first one was prepared on the five point Likert Scale. The format of the questionnaires was adapted from Harwood and Giles (1993). The copies of the questionnaires appear in appendices I and II.
Each questionnaire consisted of three parts. The first part of both questionnaires was devoted to questions about characteristics of each learner including students’ writing background and the factors which might influence one’s language proficiency such as teaching experience, being around and the learner’s mother tongue. It also included items which were intended to elicit demographic information of the subjects such as age, sex, etc. The two remaining parts of each questionnaire contained items which were supposed to elicit information about some other categories. The categories for control group questionnaire included items on self-assessment and teacher-feedback assessment. The questionnaire items for experimental group could be categorized as self-assessment and computer-feedback assessment. These items were arranged in two parts. According to the type of answer they demanded. The second part of the control group’s questionnaire included five items on a five point Likert Scale ranging from “agree” to “disagree”. The third part of the same questionnaire was devoted to eleven items again on a five point Likert Scale ranging from always (high frequency of occurrence) to never (no occurrence). The advantage of using such questionnaires is that they are less-consuming than some other data elicitation techniques such as interviews.

3.3. Procedure

First, a meeting with the instructors was held to demonstrate the EFL software and to discuss the procedures of the study. Both teachers became proficient in the use of the software and knowledgeable about the relationship between the content covered by the software as correlated with the textbook curriculum.

First, a pretest was given to all students. The first composition written at the first not only was used to select the learners for two proficiency groups, but also was considered as a criterion for determining the English writing achievement level of the students. After the pretest, each participant in the experimental group was given the CALL CD, with a set of instructions on use, roles and responsibilities, and expectations to study independently according to a plan set by the instructor. Each student in the control group was given the corresponding material to study independently according to the same timeline provided to the experimental group.

Both groups of learners attended the traditional writing classes once a week, and every session they were supposed to write a composition based on the guidelines provided by the teacher and the topic assigned by him/her. Of course, the second and the third sessions were denoted to encouraging students to start writing and providing them with general guidelines. During these sessions they just wrote two or three short paragraphs and were provided with teacher-feedback. They received teacher-feedback on their paper and were encouraged revising their compositions paying attention to the teacher’s feedback. Meanwhile the learners of the experimental group became familiar to the keyboards and using the program effectively as well as typing short paragraphs for practice. The learners received computer-feedback, which was presented to them via “WordPerfect” software. In addition, the teacher did not leave the students on their own and was always around to help them whenever they faced a problem in using each part of the program or working with computer. At their last writing class session, both groups of students were required to write a free composition as a posttest which could be used as a determinant if their final English writing achievement level was considered as evidence of their writing development. Before writing such a composition, each learner was presented with a questionnaire, the type of which depended on whether s/he belonged to the experimental or the control group.

4. Results

The aim of the research was to evaluate the students’ writing achievement as the effect of CALL. In order to obtain a more reliable index of the writing achievement of the participants, two raters were asked to score the compositions written by the experimental and control groups analytically and holistically based on already specified criteria. The paper was also based on specification of
grammatical/mechanical accuracy table consisting of even categories including: subject-verb agreement, determiner-noun agreement, determiner usage, verbs-agreement, pronoun-noun agreement, adjective-noun agreement, verb forms, incomplete sentences, capitalization, word choice and spelling. Consistency of inter and intra raters’ scoring was examined. In order to accomplish the inter–rater reliability, i.e. the consistency across the raters’ scoring, the correlations between the first and second rater for each topic were computed. The results are presented in the table 1.

Table 1: Correlation across raters

<table>
<thead>
<tr>
<th>Correlation between rater 1 and rater 2</th>
<th>Topic 1</th>
<th>Topic 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Analytic</td>
<td>Holistic</td>
</tr>
<tr>
<td></td>
<td>0.77</td>
<td>0.58</td>
</tr>
</tbody>
</table>

To examine intra-rater reliability, i.e. the internal consistency of the raters, correlation coefficient between the first and the last topic for each rater were compared. The result is pretested in Table 2.

Table 2: Intra-rater reliability

<table>
<thead>
<tr>
<th>First rater</th>
<th>Holistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytic</td>
<td>0.35</td>
</tr>
<tr>
<td>Second rater</td>
<td>0.51</td>
</tr>
</tbody>
</table>

The correlation coefficients include in table 4.1 & 4.2 vary across topics, type of scoring produce, i.e. Analytic and holistic, and within the raters. This lack of consistency suggests that there were differences among the raters either in terms if their understanding of the scoring criteria in analytic scoring or in the consistency with which they applied these criteria. Therefore, to obtain a more reliable scoring the mean scores of the subjects were used in the further analyses.

To answer the research question (Is there any significant difference in students writing achievements in EFL context between CALL users and nonusers due to treatment of regardless of instructor?) an independent sample t-test was run to find if there were any significant differences between the results of the experimental and control groups in the writing test. The analysis of covariance rejected the null hypothesis revealing a significant difference between CALL users and nonusers. CALL users’ achievement in EFL was significantly higher than nonusers (df = 38, p≤.05). This significant difference between the two groups favoring CALL users was an indication of the effect of CALL on improving students’ knowledge and competency in EFL (table3).

Table 3: Independent t-test analysis

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>T value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean topic 2 analytic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>20</td>
<td>67.61</td>
<td>25.32</td>
<td>2.83</td>
<td>0.1</td>
</tr>
<tr>
<td>Experimental</td>
<td>20</td>
<td>77.50</td>
<td>9.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean topic 2 Holistic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>20</td>
<td>63.75</td>
<td>16.05</td>
<td>0.19</td>
<td>0.66</td>
</tr>
<tr>
<td>Experimental</td>
<td>20</td>
<td>80.00</td>
<td>13.35</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The result of independent t-test analyses implies that feedback provided by computer and the one provided by the instructor had a similar effect on the final writing achievement level of the high school students. In other words, using “WordPerfect” via computers did not make a great difference on the level of writing skills of the learners of these two groups at the end of the course of instruction. However, it is worth mentioning that further pair-wise comparison of the means of the experimental and control groups (Table 3) reveals that subjects in the experimental group attained relatively higher scores than students in the control group. This higher mean score might imply that computers were
slightly more effective means if instruction for making progress in writing skills or to be more accurate, word-processors could bring a little positive change in writing environment. This difference in the scores might be attributed to nature of the immediate feedback that “WordPerfect” made available for the students. While working with the program, any grammatical mistake/error became underlined and the learners/users were provided with alternatives and explanations of which they could get help to correct their error. The explanations could make them more aware of the correct structures of the language and the suggested replacement(s) could be an aid to improve their writing. The role of the dictionary presented by the software should not be ignored. The learners could see the words from the same root just by typing the word in the specific part. It can be said that in this way their repertoire of vocabulary items was increased and this indirectly influenced the score they received in their written compositions. The role of “spell-checker” in helping students to remember the correct spelling and the positive effect might have on the students’ writing should also be considered. Another reason for the slight difference between the means of the two groups can be attributed to the improvement of the learners in the experimental group in handling the formal language elements which “WordPerfect” could provide feedback for (explained in null hypothesis no.2). It means that their grammatical/mechanical accuracy had influenced their writing positively compared with those attending just traditional classes.

As can be seen from the table above, the results of the study indicated that the members of the experimental group achieved better results in the writing test than their counterparts in the control group did. This is in harmony with the previous studies about computer-assisted writing which reported that the computer was an effective tool for teaching language skills like teaching. It is possible to account for this finding in the following way:

1. The participants in the experimental group studied in a relaxed atmosphere, which was motivating for critical thinking, and supportive for using problem-solving strategies.
2. They had an access to extra facilities like grammar and spelling checkers, which were found to be helpful for them.
3. Members of the experimental group became more dependent on themselves when they used.
4. The use of word processor in the classroom opened new prospects for the subjects, which motivated them for doing extra activities outside in the classroom.

5. Discussion
With the rapid development of technology, a number of scholars believe that learners can benefit from employing computers in language classes. For instance, Celce-Murcia (1991) acknowledges that language learning experiences with computer have significant differences with those in traditional language classes. She attributes the difference to the nature of the interaction between the learners has with computer brings about amore learner-centered approach. Many researchers have attempted to familiarize students with computers in order to help them improve their pronunciation, reading skills, grammar knowledge or other language components. An example is the work done by Wood (2001) who tried to enhance vocabulary instruction via computer. Writing has also been paid attention to by some researchers and from different programs made for this reason, Wood (2001) introduce "Native English Writing Assistant" as a successful one. However, the analyses of the results of the experimental and control groups revealed that using computers did not have a major effect on the final writing achievement level of high students, i.e. their writing achievement level at the end of the period of instruction did not show a significant difference. But at the same time, it can be mentioned that students in the experimental group who received higher score had greater ability in their writing skills at the end of the course of instruction. It should be mentioned here that since the two groups were not homogenous and were randomly assigned to the control and experimental groups, the result might have
been affected by such procedure. Perhaps, the same treatment with two homogeneous groups will bring about a significant difference.

But the positive effect of the program cannot be totally rejected. The results of the independent sample t-test illustrated that those in the experimental group were more accurate in their compositions; i.e. they committed fewer errors and paid more attention to factors such as adjective-noun agreement, verb forms, subject–verb agreement. It is suggested that most probably this accuracy is due to the immediate feedback which "WordPerfect" provided for the learners in these eleven areas while typed their previously written compositions. While working with computers and receiving such feedback the students became more aware of the mistakes they committed and in this way they were in a better position to remove them. Moreover, the software provided them with correct forms and alternatives as well as explanations. This is mentioned by James and Garrett (1995) that computers can be used as instruments for heightening the users’ explicit of language. Moreover, using computers for writing may be more fun than writing with pen and pencil as it is claimed by Sergeant (2001) and if students enjoy while writing it probably affects their learning positively.

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The effect of Computer-Assisted Language Learning (CALL) on United Arab Emirates EFL school students’ achievement and attitude. Journal of Interactive Learning Research, 17(2), 121-142. Atkins, N. E., & Vasu, E. S. (2000). Going to school the technological way: Co-constructed classrooms and student perceptions of learning with technology. Journal of Educational Computing Research, 20(4), 365-377. Prosser, M., & Millar, R. (1989). Computer-assisted language learning (CALL) is an approach to language teaching and learning in which computer technology is used as an aid to the presentation, reinforcement and assessment of material to be learned, usually including a substantial interactive element. Computer-assisted language learning (CALL) is an approach to teaching and learning in which the computer and computer-based resources such as the Internet are used to present, reinforce and assess material to be learned and usually