The Impact of Using the Word Processor to Develop EFL Learners' Writing Skill at Al-Imam Mohammad Ibin Saud Islamic University

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Abstract: This study aims at investigating the impact of using the word processor for improving EFL learners’ writing performance at Al-Imam Mohammad Bin Saud Islamic University. It was conducted in the Department of English Language, College of Languages and Translation, Al-Imam Mohammad Bin Saud Islamic University during the second semester of the academic year 2012/2013. The sample of the study consisted of 40 male students enrolled in two sections, which were randomly selected from five sections and were randomly assigned to both experimental and control groups. The experimental group studied writing via the word processor in the E-learning Language Laboratory in the college of languages and translation, and the control group studied the same skill in the traditional method. Several computer based techniques, methods and activities like checking errors were used to achieve the goal of the study. A writing performance pretest was given to both groups at the beginning of the study to make sure that they were equivalent and homogenous. The same test was given as a writing performance posttest at the end of the experiment. The results revealed significant differences between the experimental and control groups in favor of the experimental group. The researcher reached some conclusions and suggested some recommendations.

Key Words: Writing skill, writing achievement, word processor, EFL learners, writing ability.

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المجموعات التجريبية والضابطة عند بدء الدراسة لاستبان قبلي قياس مهارة الكتابة للتأكد من
كونهما متساويتان ومنتجانتان. وبعد الانتهاء من التجربة، خضعت المجموعتان التجريبية و
الضابطة إلى اختبار بعدي باستخدام اختبار المهارة الكتابية نفسه. وتم إحصاء متوسطات علامات
الامتحان اللفظي والبعدي باستخدام اختبار الإحصائي (ت). وقد أظهرت النتائج وجود فروق ذات
دالة إحصائية بين المجموعتين التجريبية والضابطة لصالح المجموعة التجريبية. وقد توصل
لباحث إلى مجموعة من الاستنتاجات واقترح مجموعة من التوصيات.

"كلمات المفتاحية: مهارة الكتابة، تحصيل مهارة الكتابة، معالج الكلمات، متعلم اللغة الإنجليزية".

Introduction

Writing is often referred to as verbal literacy. Verbal literacy remains paramount for success throughout life from the beginnings of education to the future employment of adults. Writing provides the foundation of education and the basic requirements for all academic disciplines (Heffernan, Linclon, & Atwrill, 2001). It is worth mentioning that writing plays an important role in English as a Foreign Language (EFL) learners' personal and professional lives.

Technology has added a new type of literacy which is referred to as computer fluency (Huffaker, 2004). It has opened up new approaches for designing courses in writing (Krout-Helal, 2007). Scholars stressed that computer fluency will be another prerequisite for sociability, lifelong learning and employment opportunities (Resnick, 2002). With the emergence of the computer as a medium for teaching and learning, the word processor has extended its potential and possibilities in assisting language learning. Moreover, the word processor provides new applications which encourages individual expression and consistent community development (Liou, 1997). Thus, educators attempted to improve students' independent use of the word processor as well as students' computer-based communication and interaction skills (Peng, Tsai, & Wu, 2006). Educators are greatly inspired to apply the new technique in the teaching and learning of the English Language in general, and writing in particular.

The word processor is a computer software application used for entering, editing, and formatting text based documents. It is the most useful type of all computer programs. It is characterized by ease of use and rapidity of deployment, making possible powerful information sharing and supporting collaborative writing activities and improving student interaction. Besides, "the word processor could provide unique collaborative opportunities for education combining freely accessible information, and rapid feedback, the
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word processor is being rapidly adopted as an innovative way of constructing knowledge” (Braine, 1997: 1).

As shown in Table 1, several researchers have described various advantages of word processing as an educational tool that helps EFL students write compositions.

<table>
<thead>
<tr>
<th>Functions of Word Processing</th>
<th>Advantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Spell checking</td>
<td>It eases students' fear of making spelling error and help them to produce essays with fewer spelling errors (Warschauer, 1998).</td>
</tr>
<tr>
<td>2. Blocking moving, block deleting, and formatting</td>
<td>They free students from recopying texts and therefore facilitate revising and editing (Bean, 1983; Bernhardt, Wojahn, &amp; Edwards, 1989; Daiute, 1986; Dickenson, 1986; Phinney &amp; Khouri, 1993).</td>
</tr>
<tr>
<td>3. Storage</td>
<td>Students can put down their thoughts in a non-permanent mode, which eases their fear of making mistakes; they can also put their thoughts into a permanent mode so they need not fear losing their ideas nor be blocked by perfectionism (Daiute, 1986).</td>
</tr>
<tr>
<td>4. Highly readable screen display and neatly printed hardcopies</td>
<td>They may heighten students' pleasure and pride in their writing and facilitate students' development of a sense of their audience (Hooper, 1987); encourage more reading of one's own text and so more in-depth and surface-level revision (Rodrigues, 1985).</td>
</tr>
</tbody>
</table>

Beck & Fetherston (2003) described the word processor as the most enabling and beneficial of all the computer software. They indicated seven major applications for the word processor in writing: formatting, cutting and pasting, insertion and deletion, search, editing up, editing down, and editing across. These functions can be performed through the following facilities of Word 2003. The word processor which is used in this study, has: “Edit”, “View”, “F7”, and “Format.” Each of these facilities has other sub-functions which enable the user to do different tasks of editing texts.
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Considering the important role of writing in EFL learners' professional and personal lives and the benefits of using the word processor as a collaborative tool which could be implemented in writing classrooms, the researcher has noticed that EFL English majors face a considerable number of problematic areas of difficulty in learning different aspects of English in general and the writing skill in particular. These areas of difficulties could be resulted from the inappropriate and ineffective teaching methods used by English instructors. Therefore, this study was conducted to investigate the effect of using the word processor to develop EFL students' writing performance.

**Statement of the Problem**

English instructors usually complain that most university students are unable to produce well-organized and coherent writing texts which are free from various types of errors. These texts are usually incomprehensible and incorrect to their instructors. They suffered from weaknesses in their writing performance which are revealed in their inability to use evidence, manage the flow of writing, control the quality and quantity of the language and address appropriate audience in their writing. Most EFL students indicated that the weaknesses in their writing performance could be traced back to the inappropriate techniques and methods employed in teaching writing to them. They also stressed that the writing approaches they received were void of new technologies that could enable them develop their writing performance. As Robinson-Stavely and Cooper (1994) indicated that educators must expand their concept of literacy to include electronic technology as computers are being used to create and revise texts, to send and receive mail electronically, and to present instructional texts on-screen instead of printed books, and to access large databases of texts. They asserted that educators should include writing in their definitions of literacy as well as in their approach to helping students become literate.

Using the word processor is, therefore, suggested to develop EFL learners' writing performance as English instructors wish to improve their EFL students' performance in writing. Therefore, the researcher carried out this study to experiment the impact of the word processor hypothesizing that this technique could be an efficient way to improve EFL students’ performance in writing in comparison with the traditional methods used by most university writing instructors.

**Purpose of the Study**

This study aims at investigating the impact of using the word processor on developing the first level of EFL students' performance in writing in comparison with the traditional method used by most English instructors.
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The researcher hopes to reach conclusions which could be useful and practical for English instructors.

Significance of the study
The results of this study may be significant to the first level of EFL learners as it represents an attempt to overcome the shortcomings in teaching writing in English language by offering a teaching strategy based on using the word processor in writing classrooms. It also provided the experimental group with the overall benefits of peer interaction and collaborative writing via using the word processor. Meanwhile, this study could lead to the verification and testing of new methodologies in writing instruction. It may also be significant to EFL teachers and curriculum developers as it introduces them an easy way to incorporate the microcomputer represented in the use of the word processor into writing classrooms encouraging writing performance and group work among EFL learners.

Question of the Study
This study was conducted on two groups: an experimental group that would be taught by the computerized method, and a control group that would be taught by the traditional method. It was concerned with answering the following question:
What is the difference between the experimental group which studied via computer and the control group which studied in the traditional method?

Definition of Terms
Writing performance: The present study defined writing performance as the production of a writer's ideas on a certain topic in a written form with clear organization of ideas, adequate and relevant content taking the audience into consideration and demonstrating appropriate mechanics.
Writing: writing a text of one paragraph (10-15 sentences) using the macro and micro skills of writing.
Word processor: a computer program used for editing texts, checking and correcting grammar, style, and spelling errors.
Traditional method is the students' use of paper and pencil in writing about a certain topic. The teacher then reads and corrects each student's mistakes. Each student then receives his own composition to rewrite it, incorporating corrections.
EFL: English as a Foreign Language.
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Limitations of the Study
Word 2003 was used in this study for editing texts and checking errors by members of the experimental group. Therefore, the findings of the study were restricted to using Word 2003, and some of the findings may be applicable to the earlier versions of this facility or other word processors. The results cannot be generalized beyond this tool or similar populations.

Review of Literature
This section is divided into two parts. The first part is devoted to the theoretical literature on computerized programs like the word processor and the second part deals with the research studies conducted in this area.

Theoretical Literature
Educators and researchers have expressed several views on the importance of the word processor as a valuable teaching technique for improving students' writing performance contrasted with traditional, teacher-centered course-book methods. They began to recognize the potential for furthering students' writing development by using the word processor in an instructional context which focuses on the process of writing. Much information has been written about computer assisted writing as an instructional method and its importance for improving students' attitudes and motivation and developing their writing performance. According to Bangert-Drowns (1993), using the computer for writing allows students to make changes to text that would have been more cumbersome on paper. He maintains that these changes, which range from addition and deletion to more substantial revision, allow the student to attend to higher order thinking. Therefore, users of the computer can write longer compositions and engage in more revision of their writing than users of paper and pencil. He adds that ease of revision combined with improved appearance of writing products and excitement of using a high technology can collectively contribute to the improvement of students' attitudes towards writing.

Shaw (1987) states that computers allow students to create, organize, experiment and revise without having to rewrite the whole paper. This makes writing and rewriting easier.

Wepner (1987) states that word processing encourages and motivates students to create and experiment with communication and writing without having to worry about the mechanics of writing.

Polin (1991) states that the word processor helps in brainstorming, editing, moving text and deleting while still retaining information. The word processor makes revision fun and easy. It can be used to enhance all stages of the writing process.
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Smith (1991) says that word processing encourages students to take risks with writing. It helps students to formulate ideas and to edit and review their work. It helps students organize ideas and see the structure of the essay before and after the fact.

Kelm (1992) further observes that computer-assisted discussion relieves students from the stress of contributing immediately to the teacher. Hence, the students can determine when to write as they prepare to do so. They can take their time to write freely, revise and edit, and type texts when they are satisfied with their writing.

Berge & Collins (1995) believe that opportunities afforded by the computer can increase the awareness of its capabilities to practice and enhance one’s writing skills. Realizing that they cannot assume the readers know matters specific to their culture or, for that matter, what is on their minds, students will have to clarify and explain better. This encourages them to develop and revise their opinions or ideas and express themselves in a lucid and appealing way. Thus, instead of writing to the teacher merely for assessment purposes, writing now takes on its actual function, to communicate.

Pennington (1996) observes that the ease of keyboarding and the ability of word processing to manipulate texts may further enable L2 writers to write freely and lead to improved attitudes towards writing in the second language. Eliminating mechanical difficulties in L2 writing and the ease of manipulating texts may make L2 writers less resistant to revising their written drafts. As a result, they may write more, write differently, and write better.

Ortega (1997) adds that computer-assisted language learning motivates students to explore and broaden their linguistic resources to meet the requirements of the word processor in a social context. As they attempt to negotiate meaning, their discussions will inadvertently involve expressing their opinions, clarifying and requesting for confirmation. Consequently, the amount of writing will increase as the students weigh other opinions and consider whether to incorporate these ideas with theirs. Such intensive discussions are bound to motivate students to discover self-expression while assessing the substantial amount of input. Frequency in writing and virtual community feedback will encourage them to experiment with language and more complex forms of writing.

Stevens (1999) recommended using the computer for learning/teaching the skill of writing. He believed that the word processor had a positive effect on the development of students’ achievement in writing. He designed several word processor-based exercises and activities, and suggested the following to be used in the computer-writing class:
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- Finding the missing word and writing it.
- The use of search and replace letters in a certain text.
- Double clicking a word, cutting it, and asking a student to paste it in the correct place.
- Editing: the teacher presents a text with errors, and students work individually or cooperatively (in groups or pairs) to revise it.
- Sentence completion: the teacher gives students a number of open-ended sentences or cloze exercise to complete.

Practical Studies
A large number of researchers have investigated the effects of word processing on improving the quality of students’ writing performance. In addition, they stressed that the word processor improves the skill of writing and facilitates communication and interaction between learners than those with pen and paper (Cirello, 1986; Kitchin, 1991; Owston et al., 1992; Pivarnik, 1985; Sommers, 1985; Williamson & Pence, 1989). On the other hand, these research studies differ widely from the current study, due to a variety of factors such as the design of studies, the sample of the study, and the length of time during which students were exposed to the word processor. All these research studies have been conducted on different samples such as middle and upper school students, whereas the current study has been conducted on university EFL students. Besides, few experimental studies on the use of the word processor have addressed the issue of teaching writing skills via the word processor in EFL environments in Saudi Arabia. Accordingly, the present study investigated the effect of using the word processor on improving students’ writing skill, aiming to find out if using the word processor would improve the students’ quality of writing, when training is provided and when the participants were exposed to the computer assisted writing over a period of time.

Kane (1983) investigated how eighth grade students used a computer word processing system for writing. Five students with a range of writing skills used the technology for ten class sessions. Data were gathered through interviews with students, classroom observation, and the finished text that they produced. A conclusion from this study was that students initially used the technology as they would use paper and pencil. Their writing process was basically linear and sequential. Most revisions were in spelling and punctuation. This study concluded that the word processor cannot teach students to be better writers. It only provides a means to write more easily than with pen and paper.
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Jackson (1984) studied the relationship of learning styles to performance on writing using the computers vs. the traditional handwritten method. Subjects for the study consisted of twelfth grade students in a public school in Mississippi. The Canfield Learning Style Inventory was administered to both groups. A Mechanics of Writing Checklist was used to obtain scores for the compositions. Analysis of data indicated no significant differences between the achievement of the two groups.

Fitch (1985) examined the effect of word processing on students' revision of compositions and attitudes toward writing. Sixty seventh-grade students enrolled in a required writing course were randomly assigned to either the experimental or the control group. The experimental group used a word processor for all stages and aspects of writing, while the control group used pen and paper exclusively. All the subjects wrote seven one-paragraph assignments during the nine-week treatment period. No significant difference was found in the students' attitude toward writing measured before and after treatment by survey as a result of word processing. Furthermore, using the Stanford Achievement Test subtests for spelling and language, the study concluded that word processing had no effect on students' spelling and punctuation. Overall, the experimental group made more revisions than did the control group, but when revisions were divided into levels (minor, intermediate, and major), the control group made more minor revisions, the groups did not differ significantly in the number of intermediate revisions they made, and the experimental groups made significantly more major revisions than the control group. The study concluded that though word processing did not affect students' attitudes toward writing or their ability to recognize incorrect punctuation or spelling, it did help students revise more and at a higher level.

Hult (1985) designed a study to determine the effects of word processing on the correctness of students' writing. Hult analyzed the correctness of papers produced using word processing as compared to those produced without word processing. Subjects in the study were randomly placed into sections of freshman English at Texas Tec University. Students were taught word processing through the lab user's guide, but were not given explicit instruction in word processing in class. Also available to students using the computer was a proofreading program, a stylistic analysis program that analyzes features such as vagueness, and a comment program which interprets that data from the analysis program for the students. Hult analyzed the last papers produced by both groups for thirteen features of correctness. The findings were that both groups were nearly alike in all of the correctness features except spelling. This difference was due to the
The Impact of Using the Word Processor to Develop computer-using group's access to the spell checker. The computer group had few editing errors which could be accounted for by the ease of proofreading that comes from a printed copy as compared to a handwritten copy. Hult concluded that the grammatical and usage errors made by students of the computer group do not disappear when they use computers with the exception of spelling, the errors students made were the same in the hand written group and the computer group.

Robinson-Stavely and Cooper (1994) conducted a study with community college English composition students. Some students did their writing on computers and some with paper and pencil. Essays were scored holistically as well as with a computer program called Writer's Workbench. The analysis showed that in the areas of readability, spelling, grammar, number of sentences, number of words, number of complex sentences, and average sentence length, the essays of students who worked on the computer were rated significantly higher than those of non-computer using peers.

Cunningham (2000) investigated the usefulness of word processor for learners. Analysis of the data showed that students found the computer-based writing class to be challenging and comfortable. The students believed that word processing helped them to improve their performance in writing. They also reported that using the word processor benefited them in concentrating their attention on certain aspects of their writing such as grammar, word choice and organization. The results that were reported by Cunningham indicated that the word processor was positive and contributed to improve writing abilities by increasing willingness to write and revise, and sharing ideas with others.

AbuSeileek (2006) explored the effect of using word processor on the development of EFL learners’ performance in writing and investigating their attitude towards computer-aided writing. The sample of the study was divided into two groups: the experimental group which studied writing via word processor in the E-learning Language Laboratory, and the control group which studied the same skill in the traditional method. A test was made to find the effect of the experiment. Moreover, a survey was conducted to investigate the students’ attitude towards computer-mediated writing. The results of the study indicated that the experimental group achieved better results in the writing test than the control group did. The study also revealed that members of the experimental group had a positive attitude towards using computer-based writing. Finally, the study concluded that the use of word processor was a functional method for teaching the skill of writing.
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Li & Cumming (2009) conducted a study to determine whether word processing might change a second language (L2) learner's writing processes and improve the quality of his essays over a relatively long period of time. They worked from the assumption that research comparing word-processing to pen and paper composing tends to show positive results when studies include lengthy terms of data collection and when appropriate instruction and training are provided. They compared the processes and products of L2 composing displayed by a 29-year-old, male Mandarin learner of English with intermediate proficiency in English while he wrote, over 8 months, 14 compositions grouped into 7 comparable pairs of topics, alternating between uses of a lap-top computer and of pen and paper. All keystrokes were recorded electronically in the computer environment; visual records of all text changes were made for the pen-and-paper writing. Think-aloud protocols were recorded in all sessions. Analyses indicate advantages for the word-processing medium over the pen-and-paper medium in terms of: a greater frequency of revisions made at the discourse level and at the syntactical level; higher scores for content on analytic ratings of the completed compositions; and more extensive evaluation of written texts in think-aloud verbal reports.

As indicated from the previous review of related literature (theoretical and practical) has obviously assured the importance of applying the word processor on improving students' writing achievement. The researcher found out that many studies have been conducted at the international level, while few studies (to the best knowledge of the researcher) have been carried out at the local level to investigate the use of the word processor to develop EFL learners' writing achievement. Some of these studies revealed that the word processor improved the writing performance of EFL students Bangert-Drowns (1985), Robinson-Stavely and Cooper (1994), Cunningham (2000), Abu Seileek (2006), Li and Cumming (2009), while other studies showed that the word processor had no effect on students' writing abilities Kane (1983), Jackson (1984), Fitch (1985), and Hult (1985). Furthermore, some of these studies indicated that the word processor improved students' attitudes towards using computer-based writing (AbuSeileek, 2006; and Smith, 1991) and built their motivation to write in L1 and L2 (Wepner, 1987; Cunningham, 2000; and Ortega, 1996). In addition, the previously mentioned review of the literature on computer-mediated writing also revealed a lack of research on this method in Saudi Arabia. Therefore, this study aimed at filling this gap.
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Methodology
This section discusses the methodology which the researcher followed in the present study. It includes setting and context, subjects, research design, variables, instruments, materials and procedures of the study.

Setting and context
This study was conducted in the Department of English Language, College of Languages and Translation, Al-Imam Muhammad Bin Saud Islamic University during the second semester of the academic year 2012/2013. The experimental group studied in the E-learning Language Laboratory which has 35 PCs connected with local and global networks. The PCs in the laboratory are provided with the most up-to-date CALL software packages, such as Word 2003.

Subjects of the Study
The participants were first year EFL students at the college of languages and translation at Al-Imam Muhammad Bin Saud Islamic University during the second semester of the academic year 2012/2013. The participants were randomly chosen and assigned into two groups, an experimental group (19 students) and a control one (21 students). All of them were males and their ages ranged from 18 to 20 years old. The sample of the study involved students of the paragraph writing course. The experimental group used to write their paragraphs by using the word processor on computer while the control group used to write their paragraphs with pen and paper.

Research design
The present study was a quasi-experimental study. It involved two groups: an experimental group and a control group. The two groups were first level EFL students at the college of languages and translation. They were pre-tested to measure their writing performance before conducting the experiment to be sure that they were equivalent in their writing performance. Then, the experimental group was trained by using the computerized program that is based on using the word processor in writing, and the control group wrote compositions using paper and pencil. The experiment lasted for ten weeks, three hours per week given on two days during the second term of the academic year 2012/2013. The experimental group and the control group were post-tested by using the same writing achievement test. Differences between the mean scores of the pre-and post-test were calculated by using the t-test.

Variables of the study
The present study included the following variables:
1. The independent variables:
a. The computerized program (word processor).
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b. Traditional method (paper and pencil).

2. The dependent variable:
The dependent variable of the study was EFL students' writing performance.

Instruments of the Study
To achieve the aim of the study, the researcher used the following instruments:

A. A writing achievement test
A writing achievement test was developed by the researcher to measure the students’ writing performance before and after conducting the experiment. The test was conducted for the experimental and control groups. It was given to three professors of linguistics in the field to check its suitability to the aims of the study, content, and clarity of instructions. They suggested introducing different types of questions like editing a text, analyzing a paragraph into its components, and rewriting sentences. Their comments and suggestions were taken into consideration. The test was several times field-tested. The internal consistency of Cronbach's alpha reliability for the test instrument was determined to be 0.79 which is statistically accepted. The students’ papers were corrected by two EFL instructors according to the following four criteria: content, organization and mechanics, vocabulary, and language use. To ensure its reliability, the writing achievement test was administrated to a sample out of the sample of the study during the second semester of the academic year 2012/2013 and repeated fourteen days later on the same sample to assess its stability over time.

B. A scale for measuring EFL students' writing
The researcher developed a measuring scale of assessing the students’ writing performance based on the Jordanian Ministry of Education scale for evaluating students' writing performance in the Secondary Certificate Exam as well as its instructions (see Appendix B). This scale consisted of four components which are the major items in the Jordanian Ministry of Education writing scale, they are the following: content, organization and mechanics, vocabulary, and language use.

Functions of the word processor
Advantages of writing by using the word processor on computer are to allow students to write and easily edit their writing by using cut, paste and delete functions. The spell checker on computer underlines and suggests corrections for errors. The word processor was used in presenting several language learning techniques on the low-tech level such as finding the missing word, filling spaces with suitable words, and searching words. The researcher trained the experimental group on using the word processor in writing paragraphs while the control group was taught to write the same

The Instructional Material
Reason to Write: Strategies for Success in Academic Writing by Miller & Cohen (2001) which is taught for the first level of EFL students was used. It is a textbook used for teaching paragraph writing course in the college of languages and translation. The course aims at introducing the basic concepts of paragraph writing, unity, and coherence, and giving practice about the types of paragraphs like the descriptive and narrative paragraphs.

Procedures of the Study
The researcher followed the following procedures to conduct the experiment:
1. In an attempt to determine how serious the problem of writing performance of EFL students is, the researcher conducted a study on a random sample of 40 first year EFL students at the college of languages and translation. The study was conducted at the very beginning of the second semester of the academic year 2012/2013. The researcher discussed with them the problems they had in their writing performance. Most of them indicated that the weaknesses in their writing performance could be traced back to the methods and techniques employed in teaching writing to them.
2. The researcher reviewed the previous studies which were designed to investigate the effect of the word processor on the writing performance of EFL students at the local and international levels. He found out that many studies have been conducted at the international level while few studies have been conducted at the local level. He also found that EFL students suffered from weaknesses in writing in English language. The reason behind these weaknesses could be attributed to the fact that little emphasis was provided to teaching writing as a communicative tool. Moreover, most lecture time was given to oral skills. Therefore, students were deprived of the computer-writing assistance and feedback necessary during writing.
3. To be sure that the control and the experimental groups were equivalent in their writing abilities before conducting the experiment, the researcher
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pre-tested the two groups by using the same test. Then, the t-test was used to test the significance of the differences between the two groups on the pre-test. The results indicated that the mean score of the experimental group was 28.47 with a standard deviation of 4.03, and the mean score of the control group was 26.10 with a standard deviation of 4.86. The results also showed that the difference in the mean scores between the experimental group and control group was not statistically significant (t = 0.000, p = .102). This indicates that the control group and the experimental group were equivalent in their writing performance before the application of the experiment.

4. At the beginning of the course, the instructor gave an introductory lesson about CALL in general and the use of word processor for teaching the skill of writing to the experimental group. Members of the experimental group were trained on using the word processor for learning the skill of writing. They were divided into small heterogeneous groups or pairs to enable the weak students benefit from their classmates. Members of the experimental group used the word processor for many applications in writing like exercises, checking and correcting errors and getting feedback about them, editing texts, and making electronic linguistic interaction.

5. Members of the control group studied the intended material through the traditional methods found in the Teacher's guide book. They studied the components of the paragraph, and received training on how to write different kinds of paragraphs like the descriptive and narrative paragraphs. They were also provided with a checklist to edit peers' writing. They were asked to analyze paragraphs into their components, and find and correct errors. Moreover, they were trained on how to use punctuation marks correctly. Members of the control group also used different strategies in writing such as freewriting and brainstorming.

6. A post-test was administered to find the effect of using the word processor for teaching the skill of writing between the experimental group and the control group.

7. Analyzing the collected data using the t-test.

Computer-based methods and activities

The word processor was used in presenting several language learning techniques on the low-tech level such as finding the missing word, filling spaces with suitable words, and searching words. Members of the experimental group used the word processor for finding out lexical relations like synonyms. In addition, Word 2003 was used for writing and designing exercises and quizzes followed by feedback. Ready formats and templates
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for preparing tests were employed in this study. For instance, from the site http://iteslj.org/Articles/Cunningham-CALLWriting, the file m-template.txt was downloaded and uploaded into the word processor. The header of information was edited to show the name and the test title, and write the questions. The questions that were dealt with through this program were “true or false,” “fill in the blank,” and “multiple choice.”

The word processor-based facilities were also used as effective tools for evaluating and diagnosing students’ writing. One of these facilities, “Comment”, was utilized by the instructor to mark the subjects’ works. This facility was functional in helping the instructor in diagnosing errors and providing feedback about them. Members of the experimental group also used the word processor in finding as well as correcting grammar, style, and spelling errors. By clicking “F7” button, then “Resume,” a new screen appears. It contains pieces of information about the rule that has been violated, illustrative examples, and suggestions for the user about the correct form. Members of the experimental group also used the non-linear approach in writing. Finally, the subjects in the experimental group utilized the chat facility to discuss different topics and exchange viewpoints about them. The word processor helped them to create an atmosphere of interaction and collaboration, and become more self-reliant, depending on the electronic instruments.

Findings of the Study

This study aimed at investigating the effect of the word processor on improving the writing performance of the first-level English majors at Al-Imam Muhammad Bin Saud Islamic University. To be more specific, this study tried to find out whether the word processor could improve the students’ writing performance or not.

The researcher administered a writing achievement pretest for the experimental and control groups, to measure their writing performance before conducting the experiment. The results of the analysis of the pre-test scores are shown in table (2).

<table>
<thead>
<tr>
<th>GROUP</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>19</td>
<td>28.47</td>
<td>4.03</td>
<td>1.675</td>
<td>38</td>
<td>.102</td>
</tr>
<tr>
<td>Control</td>
<td>21</td>
<td>26.10</td>
<td>4.86</td>
<td>0</td>
<td>0</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 2 shows that the mean score of the experimental group was 28.47 with a standard deviation of 4.03, and the mean score of the control group was 26.10 with a standard deviation of 4.86. It also indicates that there were
The Impact of Using the Word Processor to Develop

no significant differences between the mean scores of the students’ grades on the writing performance pretest. Therefore, it can be assumed that the experimental and control groups were homogeneous and equivalent before conducting the experiment, and that the change in the students’ writing performance would be attributed to the effect of using the word processor. After conducting the experiment, a posttest was administered to the two groups of the study to measure their writing performance. The results of the analysis of the post-test scores are shown in table 3 below.

<table>
<thead>
<tr>
<th>GROUP</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>19</td>
<td>40.58</td>
<td>3.44</td>
<td>6.939</td>
<td>38</td>
<td>.000</td>
</tr>
<tr>
<td>Control</td>
<td>21</td>
<td>32.71</td>
<td>3.70</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 indicates that the mean score of the experimental group was 40.58 with a standard deviation of 3.44, while the control group's mean score was 32.71 with a standard deviation of 3.70. It also shows that the difference in the mean scores between the experimental group and the control group was statistically significant (t= 6.939, p= 0.00). Table 3 also indicates that the word processor had a significant effect on EFL students' writing performance between the experimental group and the control group and in favor of the experimental group. This means that students in the experimental group, who were instructed by the word processor, achieved better results than those in the control group who were instructed according to the traditional method. This notion is supported by Dudeney (2003) who recognizes the word processor as a potential pedagogical tool to incorporate it into the language classroom, by encouraging critical thinking skills, leading to more communication and interaction through group activities, and eliciting greater learner motivation through interdisciplinary studies as well as “real-life” tasks.

Discussion of the Findings

The findings of the study indicated that there were statistically significant differences between the experimental group and the control group. The mean score of the students of the experimental group on the writing performance posttest was 40.58 which was higher than the mean score of the control group 32.71. The t-test showed significant differences at (α = 0.05) between the mean score of the students of the experimental
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group and the mean score of those of the control group in favor of the experimental group.

The preceding result is in line with the findings of (Cirello, 1986; Kitchin, 1991; Owston et al., 1992; Pivarnik, 1985; Sommers, 1985; Williamson & Pence, 1989; Bangert-Drowns, 1993; Cunningham, 2000; Abu Seileek, 2006 and Li and Cumming, 2009 whose results provided evidence in favor of the subjects of the experimental groups who utilized the word processor in writing. This finding is also in harmony with the several views raised by different writers such as Shaw (1987), Wepner (1987), Polin (1991), Smith (1992), Berge and Collins (1995), Ortega (1997) and Stevens (1999). However, this result is incongruent with the findings of some other studies such as Kane (1983), Jackson (1984), Hult (1985), and Fitch (1985) whose results indicated no significant differences between the achievement of the hand-written group and the computer group.

The disagreement between the last four studies and the current study might have resulted due to a variety of factors such as the design of studies, their duration of data collection, the sample of the study, the length of time during which students were exposed to word processors, as well as the training students received on using word processing-assisted writing. For instance, these studies have been conducted on middle and upper school students, whereas the current study has been conducted on EFL university students. Besides, these studies, however, were written more than 28 years ago, a period during which CALL has improved greatly.

The relatively high mean score of the experimental group was probably due to many reasons.

1. The use of the word processor in the classroom might have improved students' thinking skills which are necessary for writing because writing is putting thoughts on paper. Moreover, this technique might have motivated students to broaden their linguistic competence to meet its requirements. It might also have developed the relationship between the teacher and the students which could in turn make writing an enjoyable activity.

2. The excitement of using technology combined with intimate and genuine communication might have built students' motivation to write in English as a foreign language, which could in turn make EFL writing a motivating activity. The use of computer-assisted writing in this study created an interesting and nonthreatening atmosphere which motivated the student to depend on himself and work with other students to do many computer-based activities like editing his classmates' writing. This also created an atmosphere of cooperation among the subjects who could
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work together via chatting to write about a certain topic. They could also exchange viewpoints and receive new ideas about the subjects they discussed. Cunningham (2000) reported that computer assisted writing enabled students to interact in authentic situations with a variety of audiences, increase their levels of linguistic input and output, and enhance motivation for working and willingness to learn collaboratively.

3. The use of the word processor in teaching writing might contribute a lot to arousing students’ interests, activating their background knowledge and providing them with basic ideas and vocabulary items to compose their compositions. They found it easy to use the computer in learning the skill of writing. Members of the experimental group benefited a lot from computer-mediated learning. This is attributed to the instrument program used in the study which is accessed with a huge amount of linguistic information. It enabled the students to learn different sub-skills of writing, like grammar, spelling, style, and punctuation. Furthermore, the linguistic information in the program is arranged in an easy-to-use manner which allows the user to process it in a straightforward way.

4. The steps implemented in the study while teaching writing via the word processor made it easier for students to write and improve both of their writing quality and quantity. Members of the experimental group worked seriously and reacted positively to the concessive activities lead by the word processor, and they felt happy and proud to have clear progress in their writing performance by the end of the treatment. Thus, the improved performance of the experimental group is logically justified and accepted.

Conclusion
It can be concluded from the present study that using the word processor in writing classrooms proved to be effective in improving the experimental group's writing performance. The word processor provided a collaborative environment that encouraged the experimental group to engage effectively in the writing process and thus they improved their writing performance. Moreover, it enabled the experimental group to effectively participate and contribute in writing their paragraphs as they allowed them to publish content with ease. The easy editing process enabled the experimental group to participate in collaborative work. Therefore, they easily shared and exchanged ideas to develop their writing performance. The computer-assisted writing proved to be ideal for collaborative writing assignments as they enabled the experimental group to review rough drafts, post comments, and publish a final essay. This reveals that the word processor enhanced the participants of the experimental group to collaborate with each other as well.
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as learn from each others' work and helped them develop their writing
performance. The research results agreed with previous studies which
revealed that the word processor could provide a flexible user friendly
atmosphere for collaboration, knowledge creation and interaction in writing
classrooms. Finally, it can be concluded that EFL learners’ performance in
writing improves a lot through using word processors compared with the
traditional procedures, techniques, activities, and methods used by EFL
teachers. Using the word processor was very effective in helping EFL
learners improve their writing performance. This research study indicated
that the computer-assisted writing simply provides an additional tool that
teachers can use to get students motivated to do their best and to become
better writers.

Recommendations
1. EFL instructors need to provide a lengthy period of exposure to
computer-assisted writing so as to give students enough time to adapt to
the new writing medium (Pennington, 1993, 1996; Phinney & Khouri,
1993).
2. EFL writing instructors should motivate their students to utilize
computers and their technical capacities, there is more chance for them to
benefit from the new writing tool than for students who are not so
motivated.
3. Instructors should encourage their students to use computers to write and
when they provide adequate training to empower their students with the
essential skills and knowledge of computer-assisted writing, students are
more likely to yield better outcomes in their computer-assisted writing.
That is, if students have not been trained (or learned) how to use the
computer, then simply putting them on a computer cannot help them to
become better writers. They will tend to confine themselves to only
surface-level revisions.
4. Computers alone cannot bring about positive changes to developing
writers. Only when they are combined with adequate training and
learning opportunities in computer-assisted writing can students benefit
in their writing.
5. Formal training of EFL writing instructors should introduce programs that
based on using the word processor in writing classrooms to develop their
students' writing performance.
6. Published materials about using the word processor in computer-assisted
writing should be available to teachers and students.

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7. Curriculum designers, teacher-trainers and textbook writers should provide strategies based on using the word processor in teaching writing to EFL learners at all stages.

Suggestions for further research

- A study is needed to investigate the effect of using techniques like individual and cooperative learning in computer-aided writing in EFL classrooms.
- Future research needs to be conducted in other university EFL levels to determine whether similar results would occur in other levels. I would like to see a longitudinal study conducted on a set of students as they progress through the other levels.
- A study is needed to investigate the effectiveness of using computer-aided writing in helping EFL students improve collaboration and reflection.
- A study is needed to investigate the influence of different types of word processors on students’ writing achievement.
- A study is needed to investigate writing processes in detail instead of focusing only on written text products. Such research may be able to explain how computers influence the thinking and writing processes of student writers.

Works Cited


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Appendix A: The Writing Achievement Test

I. Write a paragraph of about 150 words on a party you attended. Say when it happened, what happened during it, which people you met and how you felt during the party and when it ended.

II. Read the following paragraph. It contains mistakes in spelling, grammar, capitalization, and punctuation. Find the mistakes and correct them. Which sentence does not belong to topic sentence. Then rewrite the corrected paragraph.

The students in the class comes from many different part of the world. Some are from european countries, such as france, spain and Italy. Others are from middle eastern countries like Saudi Arabia and Jordan. Still other students was born in asian contires including japan and Korea. Korean food are delicious. The largest number of students are from latin American
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countries like Mexico, Venezuela, and Peru. The class is an interesting mix of people from many different countries.

III. Read the following model paragraph and answer the questions.
There are several ways to learn a new language. One way is to spend a lot of time watching television and listening to the radio. Another way is to take classes at a language school or university. The best way to learn a new language is to talk to native speakers.

1. What is the topic sentence?
2. What three ways to learn a new language does the author mention?
3. What is the concluding sentence?

IV. Read the topic sentence. Then read the sentences below it. Together they tell a story. The sentences are not in the correct order. Number them so they follow a logical time order. Put a 1 in front of the sentence that should come first, and so on. Then use all the sentences to write the paragraph.
Sami saved his money and spent two months travelling around the world.

________ He spent a week in New York and then flew to London and enjoyed several weeks in Europe.

________ When he had seen the sights in Europe, Sami took a train to Istanbul and visited many places in Asia.

________ First, he flew from his home in Mexico City to New York City.

________ After travelling through Asia, he went to South America and finally back home to Mexico.

V. Rearrange the following sentences.
1. There/to/see/and/in/are/do/San Francisco/many/things.
2. cold/too/or/hot/never/it/is.
3. The/mild/snows/it/rarely/winters/are.
4. The/is/pleasant/weather/San Francisco/very/in.
5. The/has/tourist/many/attractions/city/interesting
Appendix B: Writing Performance Evaluation Criteria

<table>
<thead>
<tr>
<th>CRITERION LEVEL</th>
<th>CONTENT</th>
<th>ORGANIZATION AND MECHANICS</th>
<th>VOCABULARY</th>
<th>LANGUAGE USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>VERY GOOD</td>
<td>- complete realization of the task. - relevant. - communicative.</td>
<td>- well-organized. - clear, coherent. - mechanics of writing are well-observed</td>
<td>- demonstrate a wide range of vocabulary. - effective use of word choice, idioms... etc.</td>
<td>- mostly accurate. - few mistakes - Communication isn’t impeded.</td>
</tr>
<tr>
<td>GOOD</td>
<td>- noticeable fluency. - mostly relevant. - message can be understood</td>
<td>- organized. - ideas are partially clear and coherent. - shows a reasonable use of writing mechanics.</td>
<td>- reasonable use of vocabulary to convey a message.</td>
<td>- occasional errors. - no global errors. - a good use of sentence construction.</td>
</tr>
<tr>
<td>ACCEPTABLE</td>
<td>- no complete realization of task. - lack of ideas. - not communicative but meaning is conveyed</td>
<td>- loosely organized. - no noticeable coherence. - frequent errors in the mechanics.</td>
<td>- limited range of vocabulary. - no effective use of vocabulary to convey message.</td>
<td>- frequent grammatical errors. - use of one straight pattern.</td>
</tr>
<tr>
<td>POOR (+FAIL)</td>
<td>- irrelevant ideas. - not communicative. - no conveyed message.</td>
<td>- disconnected ideas. - not organized. - no use of writing mechanics.</td>
<td>- little use of vocabulary. - vocabulary is insufficient to convey meaning.</td>
<td>- global grammatical errors. - no mastery of sentence structure.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>CRITERION</th>
<th>CONTENT</th>
<th>ORGANIZATION AND MECHANICS</th>
<th>VOCABULARY</th>
<th>LANGUAGE USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>VERY GOOD</td>
<td>9-10</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2-3</td>
</tr>
<tr>
<td>GOOD</td>
<td>7-8</td>
<td>2</td>
<td>1-2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>ACCEPTABLE</td>
<td>6-7</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1-2</td>
</tr>
<tr>
<td>Relatively acceptable</td>
<td>5-6</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1-2</td>
</tr>
<tr>
<td>POOR (+FAIL)</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Very poor</td>
<td>3-4</td>
<td>1-2</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Very poor but with some relevant ideas</td>
<td>2-3</td>
<td>1</td>
<td>0</td>
<td>0-1</td>
<td>1</td>
</tr>
<tr>
<td>Irrelevant</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>