

*Full Length Research Paper*

# **The effect of using word processor in teaching writing skill among secondary students in schools in Jordan**

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**The study aims to identify the effect of using word processor in teaching writing skill among secondary students in private schools in Jordan, clear out the differences in writing skill between the control group taught in the ordinary method and the experimental group taught using word processor. The study follows the descriptive and experimental approach to identify the effect of using word processor in teaching writing skills among secondary students in schools in Jordan. The study sample selected in random way consisted of 30 in Al - Jubaiha secondary school in the second semester (2018/2019). The study found that there are significant positive differences in the achievement of the students (experimental group) in writing skill as a result of using word processor in their teaching. The study also found that there are significant positive differences in the achievement of students (experimental group) in spelling and grammar because of the use of word processor in their teaching. This indicates the effectiveness of the word processor for the ninth grade students in writing skills. In the light of the results, the study recommends the use of word processor for teaching because of its effect on the achievement of the ninth grade students in writing skill.**

**Key words:** Word processor, teaching writing skill, secondary students.

## **INTRODUCTION**

Writing is important in the four language skills. This importance stems from the fact that it reflects the writer's culture and thought, where writing is described as ideas on paper (Khudair, 2016). Writing in this perspective is a very complex mental process and a challenge to the writer when he accomplishes any written work, not an impromptu work. This process requires that before he begins to choose the topic to write on he should consider the public to whom he will write, and the extent of his knowledge and experience with this audience, as well as the subject to write on (Abu and Mokdadi, 2007).

In the process of writing, learners do not move in a straight line. At some stage of the writing process,

students can go back, check their ideas, and review them. So writing process is a repetitive method. The authors can wrap around their texts and make the necessary changes. Learners must organize their ideas in order to create a balanced text (Yilmaz and Erkol, 2015). As the use of word processing in student writing becomes increasingly commonplace, the need to understand its impact on the processes and products of composition is made more pressing. Owston et al. (1992) showed that the positive effects of word processing on students' writing and revision have helped to fuel the use of computers in composition. Some arguments, which are highly credible, have been made to support the claim that

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some features and capabilities of word processing environments can facilitate writing and editing. There is some evidence that the work of rewriting by hand may be a serious impediment to revising. It has been suggested that by eliminating the drudgery of re-composition composition, allowing text modification much easier, the use of text editors can reduce students' resistance to review and encourage more frequent writing style (Owston et al., 1992). Word processing is an application program that allows students to create letters, reports, newsletters, tables, form letters, brochures, and web pages. Using this application program student can add pictures, tables and charts to your documents. Students can also check spelling and grammar (Ryan, 2004).

### Study questions

- (i) What is the effect of using word processor in teaching writing skill among secondary students in private schools in Jordan.
- (ii) Are there differences in writing skill between the control group taught using the ordinary method and the experimental group taught using word processor?

### Significance of the study

The significance of the study is that it focuses on a modern educational strategy that will benefit teachers, students and schools in improving the educational process and raise the level of achievement of the study among the ninth grade students. The current study may benefit English teachers in learning the effectiveness of one of modern education methods to improve the writing skill of the ninth grade students and thus raise the level of their academic achievement.

### Study objectives

The study aims to:

- (i) Identify the effect of using word processor in teaching writing skill among secondary students in private schools in Jordan.
- (ii) Are there any significant differences between control group and experimental group related to spelling and grammar

## THEORETICAL FRAMEWORK

Word processing includes text entry, editing, and formatting. Recently, word processors have become so powerful that the line between them and desktop publishing programs has become unclear (Smith et al.,

2017). Word processing software is the most widely used application in office automation, and most, if not all, management organizations use it in their daily work (Khudair, 2016). By the end of the 20th century, word processors on personal computers replaced most typewriters worldwide, except for places deprived of basic energy infrastructure (Abu and Mokdadi, 2007). The word processor is used to create, control, display, screen, store, retrieve, and print the document electronically (Khudair, 2016).

### What is word processor?

A word processor, or word processing program is what the name implies; it deals with words. It also processes paragraphs, pages and full sheets. Some examples of word processing programs include Microsoft Word, WordPerfect (in Windows only), AppleWorks (Mac only), and OpenOffice.org (Sharpened Productions, 2018). Bani Abdelrahman defined word processor as “a computer program used for editing texts, checking and correcting grammar, style, and spelling errors” (Bani, 2013: 1.5).

Word processor is known as programs designed to write, edit, save and print texts such as documents, memos, speeches, research and so on. It is one of the most common computer programs used by PC users (90% of users). There are multiple word processing programs, including Microsoft Word, Word Perfect, Microsoft Work, and Clarise Works. One of the most popular and easy-to-use programs is Microsoft Word (Abu and Mokdadi, 2007).

In general, word processing is the program used to process a text document, such as a CV or report. Usually you enter text by typing, and the program provides tools for copying, deleting and different types of formatting. Some word processing software functions include: (a) Create, edit, save, and print documents. (b) Copy, paste, move, and delete text within the document. (c) Format text, such as font type, black type, underline, or italic. (d) Create and edit tables. (e) Insert elements from other programs, such as illustrations or photographs. Finally, (f) correct spelling and grammar (Zandbergen, 2018).

### What are the benefits of word processor?

There are many advantages and benefits of word processor programs. Levinson (2016) pointed out that word processor helps in writing and printing reports, letters, articles, pamphlets and books. Word processor programs also save documents to files for reuse or modification as needed in addition to spell checking and grammar of the document or part of it, and suggest correction. It also provides basic file functions such as creating documents, editing, saving, printing, retrieving and deleting them on demand, as well as the possibility

of inserting a letter, word, line, or line between previously typed data (Han et al., 2015).

It also provides basic file functions such as creating documents, editing, saving, printing, retrieving and deleting them on demand, as well as the possibility of inserting a letter, word, line, or line between previously typed data. The program also allows move or copy a word, line, paragraph, or section from one place to another within a document or other document (Levinson, 2016). Riyadi and Wulandari (2017) showed that word processor helps control the display of the document on the screen by moving inside the document page up or down and folding the screen up or down one line or a full page and the possibility of changing the font on the screen. In addition, it helps in searching for a word or text within the file or document and the possibility of replacing it with a word or another text. It also helps control the document's shape by selecting the margins, beginning and end of the page, selecting the export and numbering of the page footer, choosing to display the printed page, and the number of lines and spaces between the lines and the print line (Riyadi and Wulandari, 2017).

According to Graham (2008) there are 7 ways word processing helps develop writers, which are:

- (i) Legibility of text
- (ii) Potential for publishing in variety of formats
- (iii) Ease of revision
- (iv) Fluent production of text (while composing, note taking, etc.)
- (v) Likelihood of supporting applications (for spelling, grammar, semantic mapping).
- (vi) Portable, easy-to-replicate electronic text (easy to share and provide feedback; hard to lose)
- (vii) Potential for links to electronic source material

More clearly, word processing programs can be benefited in two areas (business and classroom). Dowdell (2017) indicated that the benefits of word processing in business include:

- (i) Makes it Easier to Create Templates: where in Office Setup, the most common documents are often customized to fit individual scenarios. This is usually done by creating templates using a word processing program.
- (ii) Makes it Easier to Save and Secure Documents: The "Save" or "Save As" characteristic that word processing documents allow users to give memorable names within the same file location or in different file locations.
- (iii) Saves Time and the Environment: When using word processing software features in conjunction with good organizational skills, this saves time for users.

While in classroom, the benefits of word processing are:

- a) Spelling, Word processors involve an electronic

spelling checker, where the student writer has immediate feedback about misspelled words. b) Legibility, Teachers benefited by getting a readable and easy-to-read version. Students with weak handwriting can increase their scores with better research papers. c) Security, Teachers and students have a sense of security about lost assignments. When a student saves her work, she avoids the possibility of losing the job or placing it in its place. d) Mobility, Work on a word processor and online wallet is highly portable and accessible from any computer connected to the Internet (Saylor, 2018).

### **What are the uses of word processor in education?**

There are several uses of word processor in the field of education, which are used by teachers as well as administrators. Khudair (2016) noted that the use of the word processor for teachers includes writing and keeping letters and reports, writing plans and plans of daily lessons, in addition to writing tests and storage and use when needed. Teachers also use the word processor to design and print bulletins, educational aids and certificates of appreciation, preparation of transparent slides, in addition to writing guidance panels. Whereas administrators use word processor in writing letters, reports, tables, designing models and records, as well as writing and designing advertisements for various school events. Administrators use the word processor to write student level reports, design and print cultural publications, and prepare tools and illustrations (Hassan, 2015).

### **RELATED LITERATURE**

Study of Van der Steen et al. (2017) aimed to address the current debate about the beneficial effects of text processing software on students with different working memory during the process of academic writing, especially with regard to the ability to display higher-level conceptual thinking. 54 graduate students wrote one essay by hand and one by keyboard. A hierarchical cluster analysis was used to detect distinct performance groups in the sample. The study showed the beneficial effect of text processing software, in terms of qualitative and quantitative writing output.

Study done by Torres (2014) aimed to compare the quality and quantity of student writing using a computer word processor and a pen and paper. This study was conducted during the 2012-2013 school year at a low socio economic high school located in California's Central Valley. Student writing data were analyzed using an independent t-test to determine if a significant difference existed in student writing using a computer word processor compared to a pen and paper. The study showed that there was no significant difference in student

**Table 1.** The means and standard deviations (St.d) of the study sample marks on writing skill's scale.

Teaching Group	No. of group members	Pre- test		Post- test	
		Means	St.d	Means	St.d
The experimental group	22	13.75	3.26	18.81	4.03
The control Group	22	13.60	5.15	15.16	4.83

**Table 2.** One-way ANCOVA analysis of study sample marks on the post- test according to the variable of teaching method.

Source	Total squares	df	Average Squares	F	Significant
Pre- test	662.04	1	662.04	128.17	0.00
Teaching method	125.82	1	125.82	22.09	0.00
Error	230.22	42	5.24		
Total	1018.08	44			

**Table 3.** One way ANOVA differences between control group and experimental group related to spelling and grammar,

ANOVA						
		Sum of squares	df	Mean Square	F	Sig.
Spelling	Between groups	17.818	1	17.818	101.944	0.000
	Within groups	7.341	42	.175		
	Total	25.159	43			
Grammer	Between groups	9.738	1	9.738	44.246	0.000
	Within groups	9.244	42	.220		
	Total	18.983	43			

writing using a computer word processor compared to a pen and paper.

Study of Noël (2013) employed an ecological metaphor to illustrate the impact of using word processing to teach writing. The study compared the effects of planting genetically modified crops to the impacts of using word processors in education. Although their contexts are particularly different, scientists and consumers consider both revolutionary in their fields, but their use has particularly adverse consequences. The study showed that scientists thought genetically modified plants would transform the nature of agriculture by eliminating the need for pesticides and herbicides, increasing harvestsize and providing additional nutrients. After using on a large scale and for an extended time, scientists realized they have significant disadvantages. However, at this point, it is nearly impossible to control their adverse effects. Similar to transgenic crops, word processors offer numerous advantages and have negative consequences. The example of genetically modified plants and their hazardous affects should be taken into consideration when planning the use of word processing software.

Study of Morphy and Graham (2012) aimed to understand the effects of word processing with lower-achieving students. The study attempted to retrieve the full population of studies published in English since 1983 that examined the effectiveness of word processors with struggling writers/ readers. This included all published papers, reports, dissertations, or theses. The year 1983 was selected as the start-point for searches, as it was the date of the earliest word processing study cited in Bangert-Drowns (1993)'s review. The following additional criteria were used to identify potential studies. The study was based on statistical procedures such as calculating effect sizes and maintaining statistical independence of effect sizes for analyses. The study showed that descriptive information for the 27 studies included in this review is presented in Tables 1, 2, and 3. The median year of publication was 1992, and the most common source was a dissertation study (n = 16). Almost all studies had a pencil and-paper control condition (the only exceptions were Franzke et al., 2005; Utay, 1992). Some studies employed both paper and pencil and basic word processor controls.

Study of Cheung (2012) aimed to present a critical review on studies that compared the effects of word processing-assisted writing and pen-and-paper writing on the quality of writing and higher level revisions. The study showed that, the mixed results can be attributed to flaws in the research design, including forcing students who were skilled in writing with computers to compose with pen and paper during the data collection, using thinking-aloud protocols for evaluation, and failing to state the time limit for and the venue of conducting the writing task.

Study of Dalton and Hannafin (1987) aimed to examine the effects of a year-long word processing program on holistic writing skills. Learners in the treatment group used a word processor three times per week to complete writing assignments. Students in the control group used conventional pen- and-paper writing techniques to complete their writing assignments. An analysis of writing samples taken upon completion of this study suggested that word processing alone was of little consequence for able learners, not proportionately most effective for low-achieving students. These effects were found despite logistical problems encountered during the study that probably precluded more results that are dramatic.

## METHODOLOGY

The study follows descriptive approach and experimental approach to identify the effect of using word processor in teaching writing skills among secondary students in schools in Jordan.

### Community and the sample of the study

The study population includes all ninth grade students in Al - Jubaiha secondary school for boys. Ninth grade students were chosen due to the sensitivity of the stage; a stage which requires the introduction of modern technology as the students have enough skills and knowledge to deal with modern programs in education. The study sample consisted of 30 students in the second semester (2018/2019). Students were selected in a simple random way. The students were divided into two groups: experimental group taught using the word processor and the control group taught using the usual methods.

### Study tool

For the purposes of this study, writing skill exam was developed according to the opinion of the teachers of English language in the ninth grade.

### The scale and stability of the scale

Verification of the stability of the scale was carried out by applying the scale on students from study community and outside the sample. The correlation coefficients between the first and second application of the scale were found at a time interval of 14 days; from the first application the stability coefficient of the scale as a whole is 0.938 which is high and appropriate values. It indicates the stability of the scale.

(i) Internal consistency: The equation of Cronbach's Alpha was used to test the arithmetic, where the stability coefficient of the scale as a whole is 0.897, a value indicating the stability of the scale. According to Sekaran and Bougie (2013) it was higher than 0.70.

## Statistical methods used

The following tests were performed:

1. Percentages, frequencies, arithmetic mean values and standard deviations.
2. ANCOVA was conducted to test differences questions.

## RESULTS

What is the effect of using word processor in teaching writing skill among secondary students in schools in Jordan?

To answer this question, the means and standard deviations (St.d) of the study sample marks were calculated on the pre - and post scale of writing skill according to the variable of the teaching method (Table 1).

Table 1 shows that the mean of the experimental group members' marks on writing skill scale in the pre- test was 13.75; while the mean of the control group members' marks on writing skill scale was 13.60. This indicates the convergence of the two groups in writing skills in the pre-test. Table 1 also shows that the mean of the experimental group members' marks who studied by using word processor on writing skill scale in the post-test was 18.81. This is higher than the mean of the control group members' marks who studied using traditional way (15.16).

In order to determine whether the difference between the two averages was statistically significant at ( $\alpha = 0.05$ ), (ANCOVA) analysis of the study sample marks was carried out on post- writing skill scale according to the variable of the teaching method. This was done after taking into account their grades in the pre- test, which was considered as an accompanying variable. Table 2 shows the results of this analysis.

Table 2 shows that there are statistically significant differences at ( $\alpha = 0.05$ ) between the mean of both experimental group's marks, who studied by using word processor, and control group, who studied by traditional methods on writing skill scale in the post- test, where (f) value reached 22.09. This value is statistically significant at 0.00. According to the means of the study sample marks on the post-test, as shown in Table 1, it was found that these differences were in favor of the experimental group (18.81), which is higher than the mean of the experimental group marks that were taught using traditional method (15.16). This result shows that the students who studied writing skill by using word processor have surpassed their counterparts who studied

using traditional method.

### **Are there any significant differences between control group and experimental group related to spelling and grammar?**

This question is divided in two questions as follows:

First question: Are there any significant differences between control group and experimental group related to spelling?

Second question: Are there any significant differences between control group and experimental group related to spelling?

In order to determine whether there is significant differences between control group and experimental group related to spelling and grammar at ( $\alpha = 0.05$ ), ONE WAY ANOVA was carried out on both group. The One-Way ANOVA produces a one-way analysis of variance for a quantitative dependent variable by a factor (independent) variable. This technique is an extension of the two-sample t test. The results are shown in Table 3. Table 3 shows that there are statistically significant differences at ( $\alpha = 0.05$ ) between the mean of both experimental groups in spelling and grammar.

First question: Are there any significant differences between control group and experimental group related to spelling where f value reached 101.994, and which was statistically significant at 0.00?

Second question: Are there any significant differences between control group and experimental group related to spelling, where f value reached (44.246), and which was statistically significant at 0.00?

### **DISCUSSION**

The study found that there are significant positive differences in the writing skill of the experimental group as a result of using word processor in their teaching and the control group taught in the traditional way. This finding is consistent with the findings of Noël (2013) which showed that using word processing offer numerous advantages in teaching writing.

The study found that there are significant positive differences in the achievement of the experimental group in spelling and grammar because of them being taught using word processor. This finding conflicts with the findings of Torres (2014) which showed that there was no significant difference in student writing using a computer word processor compared to pen and paper.

This indicates the effectiveness of the word processor for the ninth grade students in writing skills. This result coincides with Van der Steen et al. (2017) which showed that there is a beneficial effect of text processing

software, in terms of both qualitative and quantitative writing output.

In the light of the results, the study recommends teaching using word processor because of its effect on the achievement of the ninth grade students in writing skills. Further study related to word processor needs to be done due to its effect in improving the level of students' absorption and ability to interact in the school quota.

### **CONFLICT OF INTERESTS**

The author has not declared any conflict of interests.

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