

## *The Effectiveness of Two Writing Workshops — Paper-Based Versus Computer-Based — in Developing Preparatory School Pupils' Writing Performance*

**Dr. Samah Mohammed Fahim El-Sakka**

Faculty of Education- Suez University

### **Abstract**

**T**he present study aimed to compare the effect of applying the paper-based writing workshop to the computer-based one in teaching writing to second-year preparatory school pupils in Suez Governorate. Participants of the study included two 2<sup>nd</sup> year intact classes (n=50), from Old Suez Prep School for Girls divided into two equivalent groups: Experimental one (the paper-based, n=25), and experimental two (the computer-based, n=25). The two groups were tested using the pre and post writing performance tests before and after the experiment. The experiment lasted for three months during the second term of 2014-2015 academic year. During this period, the paper-based group was exposed to the paper-based writing workshop program while the computer-based one was exposed to the computer-based writing workshop program. Differences between the pupils' means of scores on pre-test and post test were calculated for each group separately using Paired Samples T-Test. Significant differences were found between the pre-test and posttest of writing performance of the paper-based group whereas no significant differences were found between the pre-test and posttest of writing performance of the computer-based group. Independent Samples T-Test was used to calculate the differences between the mean gain scores of the paper-based group and that of the computer-based one on the pre test and the post test of writing performance. Significant differences existed between the students' mean gain scores of the paper-based group and those of the computer-based one on the pre and post tests in favor of the paper-based group.

**Key Words:** Paper-based writing workshop, computer-based writing workshop, writing performance.

### **Introduction**

Writing is an integral part of daily life. It is a form of expression that allows ideas, thoughts, feelings, and sense

making of the world to be communicated (Mester, 2011). To Kihara, Graham, and Hawken (2009) it is not an optional skill for students; it is essential. EFL students— Egloff (2013) states— need writing to become successful in school and beyond. It is the medium through which all subjects are assessed as it is considered a required element of standardized testing. Also, Hudson, Lane and Mercer (2005:473) believe that “writing about a topic helps people to understand it better, thus writing is the primary way through which students are asked to display their knowledge in school”. Therefore, Hamp-Lyons (2002) assures that command of good writing is necessary for success in the 21<sup>st</sup> century as “the written word remains a principal medium of communication which can create understanding between people” (p.5).

Writing is not an easy skill to be mastered. It is a means of communication that must be consciously learned. It is an intellectual activity that should be taught according to its complex nature because the more it is studied and practiced, the more perfect it becomes (Herffernan, Linclon, & Atwill, 2001). Consequently, Reid (2002) said that teaching English writing is different from teaching other language skills because writing is used as a support skill in language learning. Despite its importance, writing instruction has been neglected as teachers have sought to meet other curricular demands. The lack of a research-based instructional framework has caused ambiguous and inconsistent writing instruction across the schools. Therefore, both Graham and Perin (2007) assure that little attention was given to writing instruction. Accordingly, writing instruction is an area that needs more attention, specifically in the preparatory grades.

It is clear that computers, mobile technologies, and the Internet are changing the way people write and produce text, and this influence is quickly spreading. Yet writing is a complicated, recursive, and ever-changing process. With the addition of technology, that process changes even more (Hicks, 2006). Ramsay (2011) assures that integrating technology into

writing classrooms often motivates even the most intractable struggling writers. With computers – Yancey (2009) believes – the act of writing becomes more and more an act of composition using text, images, and sound to interact and collaborate with the reader—and this requires us to rethink how we use and create text in our classrooms. However, striking a balance between focusing on the writer and the writing on the one hand and using technology on the other is a challenge that needs to be solved.

Research conducted by Calkins (1986) and Graves (1983) has greatly impacted writing instruction. The strategies introduced by these pioneers shifted writing instruction from a product approach to a process approach similar to that found in the writing workshop that emphasizes on the stages of writing (Knudsen, 1990). Since then, writing workshop has become a respected method for teaching writing to all age groups in general (Eitelgeorge, & Barrett, 2004) and it is one of the dominant strategies of writing instruction in middle school in particular (Harris, Graham, & Mason, 2006). Yet, recently, many paper-based instructional modes – Noyes and Garland (2008) states – have been transferred directly into computers with little regard for any implications. Endres (2012) believes that the creation of electronic text is starting to become a more normalized medium for writing. Accordingly, the debate concerning the equivalence of computer- and paper-based instruction continues, especially with the growing interest in online instruction. Consequently, more researchers and scholars will have to research the complicated implications and effects that would come with the implementation of this significant change in modes of writing workshop. The way in which writing workshop is implemented (either paper-based or computer-based) may have a great impact on pupils' writing performance.

In spite of writing importance for preparatory school pupils and the various modes used in writing instruction in most preparatory schools, the researcher believes that the low levels of writing performance is one of the serious problems facing EFL preparatory school pupils in general and Old Suez Prep School's

Pupils in particular. Surveying a number of studies that investigated writing performance at the preparatory stage (e.g., Abdel-Fattah, 2012; Sahakian, Abdel-Moneim and El Hadidy, 2012; Al-Sagheer, 2013; and Ebrahim, 2015), the researcher revealed that preparatory school pupils encounter different problems in their writing performance. For example, Abdel-Fattah (2012) found that preparatory pupils (either in the first or the second year) have inadequate writing skills. They lack organization as well as mechanics skills. In 2012, Sahakian, Abdel-Moneim and El Hadidy found that students in prep stage encounter several difficulties in their writing performance. They tend to feel frustrated when facing a writing task either a paragraph, or a letter. Also, experimental prep school pupils –Al-Sagheer (2013) found– encounter different problems in their writing performance as they lack writing accuracy. In Suez Governorate, Ebrahim (2015) found that second year preparatory school pupils suffer from many problems in their writing performance such as inability to provide supporting details, inability to write relevant ideas, weak position statements, repetition of lexical and structural items, problems with spelling, grammar, punctuation, and mechanics.

To ensure that EFL preparatory school pupils in Suez encounter similar problems in their writing, the researcher conducted a pilot study on 30 second-year EFL preparatory school pupils at El Sadat Prep School for Girls. She administered a writing performance test. The results of the test revealed that the majority of pupils (80%) encountered difficulties in most writing skills such as: providing supporting details, writing relevant clear ideas, showing poor spelling and punctuation marks, writing conclusion, ..... etc.

To the knowledge of the researcher, several studies have been conducted on the effect of either computer-based writing workshop or paper-based writing workshop. Yet, studies comparing the two kinds of writing workshop are limited. Therefore, the purpose of this study is to investigate the effect of

paper-based versus computer-based writing workshop on the preparatory school pupils' writing performance.

### **Statement of the problem**

The problem of the present study is stated as follows:

There was a low level of writing performance among second- year preparatory stage students at Old Suez Prep School for Girls. In an attempt to find a solution for this problem, the present study would use the writing workshop to develop preparatory school pupils' writing performance. Also, it would investigate the effectiveness of two modes of writing workshops—paper-based versus computer-based—in developing preparatory school pupils' writing performance.

Therefore, the present study will answer the following questions:

1. Which is more effective on developing preparatory school pupils' writing performance: paper-based or computer-based writing workshop?
2. What is the effect of paper-based writing workshop on preparatory school pupils' writing performance?
3. What is the effect of computer-based writing workshop on preparatory school pupils' writing performance

### **Hypotheses of the study**

The present study included three hypotheses as follows:

1. There would be no statistically significant difference in the mean scores of the paper-based group exposed to the paper-based writing workshop, on the pre/post tests of writing performance.
2. There would be no statistically significant difference in the mean scores of the computer-based group exposed to the computer-based writing workshop, on the pre/post tests of writing performance.
3. There would be no statistically significant difference in the mean gain scores of the paper-based group and those of

the computer-based group on the post test of writing performance.

### **Significance of the study**

The significance of this study lies in the following points:

1. It may resolve the debate concerning the effectiveness of computer- and paper-based instruction.
2. EFL teachers would know more about specific practices of computer-based writing workshop as well as the paper-based writing workshop.
3. It would show the feasibility of integrating technology in language teaching, thereby helping EFL teachers teach writing skills effectively.
4. It would add to the growing body of research on the effect of the computer-based as well as the paper-based methods and strategies of teaching on developing various language skills.

### **Delimitations of the Study**

The present study is delimited to:

1. Two 2<sup>nd</sup> year intact classes from Old Suez Prep School for Girls.
2. The second term of 2014-2015 academic year.

### **Definition of Terms**

#### **1-Paper-based writing Workshop**

Paper-based writing workshop is operationally defined as a method of teaching writing using a workshop approach in which pupils write self selected topics. It starts with a mini lesson introducing the writing topic and modeling it by the researcher. Then, paper-based free writing time is given to pupils to write their paragraphs while the researcher is conferring with them, discussing their writing problems and introducing suggestions. Finally, the pupils share their paragraphs with peers or the whole class to receive feedback from the teacher as well as from their peers.

## **2-Computer-based writing workshop**

It is operationally defined as a method of teaching writing using a workshop approach in which pupils write self selected topics. It starts with a mini lesson introducing the writing topic and modeling it by the researcher. Then, in the computer lab pupils are given time to type their paragraphs using Microsoft Word while the researcher is conferring with them, discussing their writing problems and introducing suggestions. Finally, the pupils share their paragraphs with teacher and peers by sending their paragraphs via e-mails. Pupils receive feedback from the teacher as well as the peers via e-mail also.

## **3-Writing performance**

In the present study, writing performance is operationally defined as the ability of second year preparatory school pupils at Old Suez Prep School for Girls to produce written English paragraphs with sufficient content (unity and relevance), accurate language (grammar and word choice) as well as perfect organization and mechanics ((main idea, supporting details, concluding sentence, spelling and punctuation).

## **Review of Related Literature**

Writing Workshop is a method of writing instruction that developed from the early work of Donald Graves, Donald Murray, and other teachers/researchers who found that coaching students to write for a variety of audiences and purposes was more effective than traditional writing instruction (Calkins, 2006). This approach has been popularized by Lucy Calkins and educators involved in the Reading and Writing Project at Columbia University in New York City, New York.

### **Definition**

Mester (2011) defines writing workshop as an interdisciplinary instructional strategy that incorporates the process approach of writing instruction. In other words, both Dorn and Soffos (2001) define it as a method where students learn and practice the processes of how to write effectively. Jasmine and Weiner (2007) and Carroll (2010) agree that writing

workshop is an interactive approach to teaching writing in which students learn and practice rehearsal, drafting/revising, and editing work that is personal to them.

Both Calkins and Mermelstein (2005) define writing workshop as a non-traditional approach to writing where students are developed through a variety of interactive experiences, starting with a mini-lesson that is followed by independent writing, conferring, and group sharing. They agree that writing workshop is an instructional context in which the teacher guides the students through the writing process. Therefore, in writing workshops, students engage in the creation of a variety of written products with instructional assistance from the teacher.

### **Theoretical perspectives of writing workshop**

The theoretical underpinnings of this approach are provided by three related theories of learning, namely, the constructivist theory of Bruner (1981), the social development theory of Vygotsky (1978), and the social learning theory of Bandura (1986).

The constructivist theory is not new. It is derived from the work of Dewey, Bruner, Piaget, and Vygotsky, among others. Constructivism is a theory of learning based on the principle that learners construct meaning from what they experience. Accordingly, learning is an active, meaning-making process, not a passive, receptive process (Cornelius-White, 2007). Thus, the basic premise of the writing workshop strategy is the interaction between teacher and student. Writing workshop emphasizes the teaching-learning relationship of social interaction rather than teaching materials because writing is by nature a social process (Dorn and Soffos, 2001). Therefore, they added that students learn how to become writers through meaningful interactions with knowledgeable adults. According to Bomer and Laman (2004), the interactions among students are equally important to interactions between teacher and students because they allow students to exchange ideas that may impact their learning and achievement.



According to Bandura's (1986) beliefs of observing, modeling, and imitating, learning occurs when individuals observe the desired behavior being modeled by others and then adopt the behavior themselves to achieve a learning goal. In the writing workshop, the mini-lesson focuses on strengthening students' area of need by modeling effective writing techniques. Students not only observe and model the teacher but also can do the same with their peers to acquire the desired behavior. Consequently, this strategy is in line with Bandura's (1986) social learning theory, which emphasizes the importance of observing and modeling behaviors necessary to learning new skills.

Regarding the social development theory of Vygotsky and Vygotsky's concept of the zone of proximal development (ZPD), learning is influenced by learner's development (McCombs, 2003). Learners move through identifiable stages of physical, intellectual, emotional, and social growth that affect what can be learned and in what depth of understanding. Therefore, learners do best when the learning is at their proximal stage of development, challenging enough to require them to stretch, but attainable with effort. Peer and teacher conferencing supports Vygotsky's (1978) ZPD theory, which is supported by the writer's workshop approach. In this model of learning, the "zone" is the difference between what students can write alone and what they can write with assistance. The focus is on acquiring more knowledge, and according to Vygotsky, the ability to achieve higher levels of knowledge depends on the learners' interactions with others. This social interaction is the foundation for cognitive development and growth.

### **Principles of the writing workshop**

Writing workshop relies on a core set of principles that center on students as writers; where teachers teach the writer, not the writing (Calkins 1994). Thus, it is based upon four main principles summarized by Calkins (2006) as follows:

1. **Students will write about their own lives:** students are not given writing prompts but choose their own topic that is meaningful to them.
2. **Students will use the writing process.** They brainstorm, draft, and revise work that is personal to them.
3. **Students write in authentic way.** Instead of spending the majority of class time on spelling tests, grammar drills, handwriting practices and other isolated sub-skills of writing, writer's workshop is designed to emphasize the act of writing itself. Students spend most of their time practice writing, not just learning about it
4. **Students develop as independent writers.** Overtime, students learn to choose their own topics and to autonomously manage their own development as they work through a wide variety of writing tasks.

### **Importance**

Writing workshop incorporates not only the freedom to choose what you write, but it provides the length of time students need in order to get ideas down on paper (Eitelgeorge, & Barrett, 2004). Students notably improve so much because they spend much time on writing and because the workshop atmosphere is more conducive to personal expression and growth than the traditional classroom (Serag, 2011).

Moore (2011) argues that implementing a writing workshop into different educational levels can lead to a notable enhancement of writers' motivational level. Jong and Harper (2005) and Feinberg (2007) agree that writing instruction that is process oriented and student focused, such as writing workshop, will develop students' confidence. They stated that writing workshop allows students' voice to be heard and thus giving them more confidence in their written product. To Mester (2011) writing workshop improves the feelings and attitudes of students about writing, as well as how they feel about themselves. Mester continues that students who learn the writing process through the workshop approach are more comfortable sharing their

writing and taking risks as they write. As a result, the classroom becomes a community where students develop the ability to reflect and grow as writers and people.

Behymer (2003) adds that writing workshop improves the literacy of students. When incorporating writing workshop in students' daily schedule, teachers are working on students' reading skills as well as writing skills. Reading and writing, both of which derive meaning from print, are closely related. The more the students read, the better they become at writing and vice-versa.

In view of above, Hicks (2009) summarizes the importance of writing workshop as it:

1. encourages independence,
2. gives the student writer a high degree of choice,
3. structures the environment to encourage writers to take risks and learn their craft,
4. provides a scaffolding support system to all writers,
5. gives students frequent response to their writing,
6. has a regular and predictable time to write and amount of time, and finally
7. gives students direct instruction in writing by different methods; whole class, small group, individual.

### **Steps of writing workshop**

There is not a general consensus around every single element of what is or is not a part of the writing workshop approach (Hicks, 2009). The basic structure never changes, but there is still a lot of flexibility. For example, all sections except the writing time are optional.

Several educators and researchers (e.g., Calkins, 1994; Peha, 1995-2003; Hicks, 2009; Mester, 2011; Smith, 2012; and Serag, 2014) agree that among the different components of the writing workshop, the following are the most common:

1. **A Mini-Lesson (5-15 minutes):** the mini-lesson is a short, teacher-led discussion focusing on a single topic that

students need help with. The teacher doesn't need to give a mini-lesson each day; 2-3 times a week is usually just fine. There are three guiding principles to the mini-lesson approach: brevity (usually 10-15 minutes, rarely more than 20), authenticity (is related to the real things that real writers really need to know and targeted to address, in a timely way, and the specific challenges writers face as they explore new writing tasks and genres), and focus (covers a single, narrowly defined topic).

2. **Writing Time (20-45 minutes or more).** Students try to write their own paragraphs. During writing time there are two activities: Writing with the students and conferring with them. As soon as the students start to write, the teacher usually starts to write, too. S/he tries to write in front of the students on the overhead or on the board. It is not necessary for the teacher to do that activity every time, but it is recommended doing it at least once a week, if not more often. Writing with students is a wonderful thing as they get so excited when they feel the teacher writes with them, and struggles with the same issues. The teacher usually writes for about 5-10 minutes, after which time s/he begins to conference with individual writers. During conferences, the teacher moves through the classroom helping students who have problems with their writing or witnessing the progress of students while writing. A mini-conference should last about 2-3 minutes, no more than 5. The teacher begins the conference by asking probing, open-ended questions to ascertain the student's current focus in his/her writing work. Conferencing enables students to analyze problems in their writing and discuss ways to solve them. The focus of conferencing must be how to help students to improve as writers rather than how to improve a particular piece of writing. Once the teacher has identified an area of need, the teaching can begin.

3. **Sharing time (5-15 minutes):** Sharing is one of the most instructionally valuable part of the class in a writer's

workshop. Through this stage, students have time to share their written work with their peers and the teacher. Students read what they have written and seek feedback from their peers and the teacher. Therefore, the teacher should teach students how to make constructive comments to their peers by modeling how to make such comments.

## **Kinds of Writing Workshop**

There are two main kinds of writing workshop, paper-based writing workshop and computer-based one.

### **Paper-Based Writing Workshop**

The returning to use the paper-based mode of writing in comparison to computer-based one continues to attract research interest. In this kind of writing workshop (paper-based), the teacher shifts his attention from technology back to the writer (Hicks, 2009). This kind of writing workshop follows the following steps:

1. **The mini-lesson:** It is a short explicit illustration (usually 10-20 minutes) given by the teacher on board. In this step, the teacher starts by activating prior knowledge of students. S/he may show them a model text about a specific topic and try to model how to brainstorm ideas about that topic. The teacher pretends to be thinking, as a student would, about what they were going to write. For example if the teacher finds the first ideas about the topic, then s/he will be modeling how to write this sentence on board.
2. **The Paper-Based Writing Time (20-40 minutes):** This step is the most important step in the paper-based writing workshop. The student is given the chance to apply what the teacher has just illustrated and modeled in writing topics of their own. On their notebooks, students will start to write as much as possible following the process writing steps: pre-writing, drafting, editing, re-writing and publishing.

3. **Conferencing:** during the paper-based writing time, the teacher goes round the class conferencing with students, helping them in their writing problems and trying to introduce suggestions.
4. **Sharing time:** the teacher asks some of the students to share what they have written with the whole class. The teacher gives students feedback forms in order to evaluate their peers' paragraphs. The teacher explains to the class how to give feedback to their peers and how to respond to the feedback they have received either from their teacher or from their peers.

### **Advantage of paper-based writing workshop**

Gayomali (2015) summarized the most important advantages of paper-based writing as follows:

1. **It is better for learning.** One of the most effective ways to study and retain new information is to rewrite your notes by hand. That's because putting ink to paper stimulates a part of the brain called the Reticular Activating System, or the RAS.
2. **It makes students better writers.** Writing on paper makes students more concentrated to the writing conventions and grammar. A 2009 study from the University of Washington seems to support proponents' preference for writing by hand: Elementary school students who wrote essays with a pen not only wrote more than their keyboard-tapping peers, but they also wrote faster and in more complete sentences. Brain imaging studies with adults have shown an advantage for forming letters over selecting or viewing letters.
3. **It will prevent students from being distracted.** Writing longhand is a workout, not necessarily for wrist, but for brain. Writing by hand engages students' motor-skills, memory, and more. Thus, this mode of writing workshop is good cognitive exercise to keep students' minds sharp and concentrated.

## Computer-Based writing workshop

The computer-based writing has significantly altered traditional conceptions of writing. While this change in writing mode may not be new, it is clear that computers, mobile technologies, and the Internet are changing the way people write and produce text, and this influence is quickly spreading. The creation of electronic text is starting to become a more normalized medium for writing (Endres, 2012).

This mode of writing workshop will be held in the school lab. It follows the following procedures:

1. **The Mini lesson** – A brief focused teacher generated lesson, focusing on a particular skill.
2. **Computer-based writing time**–using Microsoft word program, the students are asked to write paragraphs on topics of their choice.
3. **Conferences** – The teacher circulates around the lab and meets individually with students to discuss their writing problems and offer solutions.
4. **Computer-based sharing Time** – students send their paragraphs to their teacher as well as peers via e-mail. Also, they receive feedback from their teacher as well as their peers on their paragraphs

## Advantages of computer-based writing workshop

Ramsay (2011) believes that integrating technology into writing workshops often motivates even most struggling writers. Yancey (2009) believes that using text, images, and sound to interact and collaborate with the reader make the written work of the students more interactive. One thing that teachers appreciate about integrating technology is that it has such potential for engaging students (Scherer, 2011). Additionally, the feature that allows students to copy and paste or cut and paste - Ooastendorp and De Mul (1996) said- is a further advantage of the computer-based writing workshop.

## **Research on writing Workshop**

To the researcher's knowledge, there are three studies that dealt with effect of writing workshop on writing performance. These studies are conducted by Jasmine and Weiner (2007), Mester (2011), and Serag (2014).

Jasmine and Weiner (2007) investigated the effect of the writing workshop model on the writing of the first graders. The participants were 12 boys and 9 girls. They were taught using the writing workshop model. The writing workshop was found to increase enjoyment of writing in first graders. This model has proven to be an effective instructional method to support first graders in learning the writing process by choosing a topic, revising and editing drafts, and sharing their work.

Mester (2011) compared the impact of two types of instructional strategies, namely, writer's workshop and traditional approaches, on the writing achievement of Kindergarten students. Data were collected from 90 students. During the 9-week study, three classroom teachers provided writing instruction to 45 students in the control group by using writing strategies that did not incorporate daily structured writing activities. Over the same period, three classroom teachers implemented writer's workshop strategies daily for 45 minutes to 45 students in the experimental group. The results showed that students in the experimental group, who were taught through writer's workshop achieved higher scores than those students in the control group, who were taught through the county's writing curriculum.

In 2014, Serag examined the effect of writing workshop on enhancing the paraphrasing skills of graduate students. This study was conducted on 57 graduate students. Pre and post paraphrasing writing tests were administered to the study sample. The results revealed that the writing workshop model had a remarkable positive effect on graduate students paraphrasing skills. This finding is consistent with a large body of previous research (Calkins, 2011; and Moore, 2011).



## **Methodology**

### **Design**

The present study is a pre-post quasi-experimental study. The researcher used two experimental groups (paper-based group and computer-based one). The experiment lasted for 3 months during the second term of 2014-2015 academic year. During the experiment the paper-based group was taught using the paper-based writing workshop while the computer-based group was taught using the computer-based writing workshop.

### **Participants**

The participants of this study were two 2<sup>nd</sup> year intact classes (totaling 62) from Old Suez Prep School for Girls. Only 50 pupils participated in the study after excluding those who did not attend regularly or take the pre or the post tests. Those pupils were assigned at random to experimental one group (paper-based, n=25) and experimental two one (computer-based, n=25). All participants spent at least 8 years learning EFL. They also studied computer for 4 years at both the primary stage and the preparatory stage.

### **Instruments**

Two writing performance tests (pre and post) were developed by the researcher to measure the participants' level of writing performance before and after the experiment. Each test consists of a composition-writing task which required students to write two paragraphs on two assigned topics. The topics were chosen to suit what the pupils would practice during the semester. Each paragraph should contain at least eight complete sentences. For each paragraph, pupils were given guiding words to help them in composition writing. To achieve tests' validity, a jury of 8 TEFL experts validated the tests and their suggestions and recommendations were put into consideration.

A writing performance rubric was developed by the researcher to evaluate pupils' paragraphs in the pre and post writing performance tests. In this rubric a total of 15 points was assigned to each paragraph. The 15 points were equally divided among three main components: content (unity and relevance),

language (grammar and word choice), and organization as well as mechanics (main idea, supporting details, concluding sentence, spelling and punctuation). Each component has three levels: strong (5 scores), adequate (3 scores) and weak (1 score). For the validity of the marking scale, six specialists in the field of TEFL were asked to judge it. Reviewers' suggestions and recommendations were taken into consideration.

## Materials of the study

Two proposed teaching guides were designed by the researcher to be used as the main materials of the study. The Paper-based Writing Workshop guide and the Computer-based Writing Workshop guide. The two teaching guides use the writing process and the steps of the writing workshop strategy in order to teach writing to second-year preparatory stage pupils. The programs consist of 22 sessions distributed along eleven weeks, two sessions per week during the second term of 2014-2015 school year.

*Table 1: A sample session of the paper-based writing workshop*

Duration	Activity	Teacher Role	Student Role
5-15 Minutes	Mini-lesson	Direct instruction in whole group about strategies and skills related to EFL writing. Modelling of paragraph writing in front of the class.	Participating in whole group instruction.
5 Minutes	Group rehearsal for writing	Brainstorming and topic discussion	Suggesting writing topics of their own.
15-45 Minutes	Paper-based individual writing and informal peer discussion	Holding conferences with pupils discussing their writing problems and monitoring their writing progress.	Starting new writings or continuing with past work.
5-20 Minutes	Sharing of writing	Allowing pupils to share their work. Giving feedback on pupils' paragraphs and encouraging peers to give feedback.	Sharing work in a predetermined rotation. Reading his/her paragraph in front of the class and the teacher.

As for the computer-based writing workshop's sample session, The first two steps were similar to the paper-based one. While, the third and fourth steps are different in the mode used in performing tasks as they depend on computer. See Table 2 below:

*Table 2: A sample session of the computer-based writing workshop*

Duration	Activity	Teacher Role	Student Role
5-15 Minutes	Mini-lesson	Direct instructions in whole group about strategies and skills related to EFL writing. Modelling of paragraph writing in front of the class.	participating in whole group instruction.
5 Minutes	Group rehearsal for writing	Brainstorming and topic discussion	Suggesting and generating writing topics of their own choice.
15-45 Minutes	Computer-based individual writing and computer-based peer discussion	Going round the lab and holding conferences with pupils discussing their writing problems and monitoring their writing progress.	On computers, starting writing about their self-selected topics. beginning new writings or continuing with past work.
5-20 Minutes	Computer-based Sharing of writing by e-mails	allowing pupils to share. giving feedback on pupils' paragraphs and encouraging peers to give feedback via e-mails .	Sending their paragraphs to the teacher and their peers via e-mails. Reading their peers' written work and sending feedback to each others via-emails.

## Procedures pretesting

Prior to the experimentation of this study, the researcher administered the writing performance pre-test. The independent sample t-test was used to test the differences in the mean scores of the two groups in the pre test. No statistically significant difference existed between the mean scores of the two groups ( $t=0.201$ ,  $P>0.05$ ) as shown in Table 3 below.

*Table 3: Independent samples t-test for the differences between the means of scores of the paper-based and computer-based groups on the pretest of writing performance.*

Group	N	M	S.D.	t-value	Sig.
Paper-based	25	7.568	1.80	0.201	0.675*
Computer-based	25	7.428	1.77		

\* $p > 0.05$  (Not Significant)

## 2. Treatment

After making sure that the two groups were equivalent in writing performance, paper-based pupils were exposed to the Paper-based Writing Workshop while the computer-based pupils were exposed to the computer-based writing workshop. During the period of the study, the researcher met with the participants of the two groups for two sessions weekly. Each session lasted for 90 minutes. As for the paper-based writing workshop program, each session started with a 10-15 minute mini lesson on a particular writing strategy or a writing problem. The researcher explicitly teaches the strategy and models it in front of the class. Then, the teacher gives pupils time to generate topics of their own. After that, pupils are given the time to write about their topics in their notebooks. During that time, the researcher goes round the class and holds conferences with the pupils. Finally, pupils share their writing with the whole class and receive feedback from the researcher as well as peers.

As for the computer-based writing workshop program, it consists of 24 sessions. The first two sessions were allocated to explaining how to write using Microsoft word program, how to make e-mails, how to send and receive messages through e-mails. The sessions of the computer-based writing workshop program is held in school lab. Then, the researcher starts the sessions by explicitly teaching the writing strategy and modeling it in front of the class. They are given the time to write their topics on the Ms Word program. During that time the researcher goes round the lab and holds conferences with the pupils. After that, the participants were asked to share their topics with the

teacher as well as the peers by sending them to their teacher and their peers via e-mail. Finally, pupils receive feedback concerning their paragraphs from their teacher as well as their peers via e-mails.

## Posttesting

Having taught all the instructional sessions, the post test of writing performance was administered to the participants of the two groups. The researcher calculated the differences in the mean scores of the pre and post test of writing performance for each group separately in order to determine whether there was improvement in the dependent variable for each of the two groups. For this purpose, she employed the paired samples t-test. Furthermore, she calculated the effect size for such differences to determine the size of the practical effect caused by the interventions.

Furthermore, in order to determine which program is more effective, the researcher computed the differences in the gain score between the post test of writing performance of the paper-based group and that of the computer-based group. For this purpose, the researcher used independent samples t-test between the two groups, employing a gain score for each of the participants in the study.

## Results and discussion

The paired samples t-test was used to investigate the first hypothesis of the study which stated that "There would be no statistically significant difference in the mean scores of the paper-based group exposed to the paper-based writing workshop, on the pre/post tests of writing performance." The result of the paired samples t-test is shown in the following table:

**Table 4: Paired samples T-test for the differences in the mean of scores of the paper-based group on the pre and post tests of writing performance**

Test	N	M	SD	DF	T-Value	Sig.
Pre	25	6.608	1.301	24	27.628*	0.00*
Post	25	15.171	2.617			

\* $p \leq 0.05$  (Significant)

As shown in table 4, the paired sample t-test revealed that there existed a significant difference in the paper-based group mean scores between the pre and post test of writing performance ( $t=27.628$ ,  $p\leq 0.05$ ). Additionally, using Eta Square, a large effect-size was found ( $d = 8.40$ ,  $d < 0.8$ ). This result reveals that participants in the paper-based group have achieved significant improvement in writing performance during the period of the experiment. Therefore, it was concluded that the paper-based writing workshop significantly improved the writing performance of participants. In light of this statistical result, the first hypothesis was completely rejected.

This significant finding might be due to different reasons. Firstly, the nature of the paper-based writing workshop which suits the nature of the Egyptian pupils might be a possible explanation for this result. Egyptian pupils are accustomed to the paper-based assignments as well as the paper-based assessment and testing. They are not accustomed to performing their tasks especially the written ones on computer. Another explanation may be attributed to the large amount of time allocated to student's writing. The more the students write, the better their performance will be. This finding found empirical support in Mayer's study (2007) as well as Kohler's (2015). They found that providing many opportunities for writing creates a strong writing foundation. They maintained that when the writing opportunities are abundant, writing success is ensured. A more possible explanation is related to the explicit instruction and modeling of writing strategies given by teacher. When pupils see the teacher write and model the writing processes in front of their eyes, this make learning more retainable. Pupils start imitating their teacher's good practices and avoiding mistakes. Consequently, their writing performance improves. The sense of ownership felt by the students who write about topics of their own choice may be a more possible explanation for this finding.

Paired-samples t-test was used to investigate the second hypothesis of the study which stated that "There would be no statistically significant difference in the mean scores of the

computer-based group exposed to the computer-based writing workshop, on the pre/post tests of writing performance.” The findings of the paired-samples t-test was presented in the following table:

**Table 5: Paired samples T-test for the differences in the means of scores of the Computer-based group between the pre and post tests of writing performance**

Test	N	M	SD	DF	T-Value	Sig.
Pre	25	6.608	.901	24	1.628*	0.00*
Post	25	8.171	1.617			

\* $p > 0.05$  (Insignificant)

As shown in table 5, the paired samples t-test revealed that no statistically significant differences existed in the mean scores of the computer-based group pupils between the pre and post tests of writing performance ( $t=1.628$ ,  $p > 0.05$ ). Though there existed differences between the mean scores of the pre test (6.608) and the post test (8.171), yet this difference was statistically insignificant. Therefore, it was concluded that the computer-based writing workshop did not significantly improve the writing performance of the pupils. Accordingly, the second hypothesis was accepted. A possible explanation of this finding may be attributed to the relative brevity of the study. Twenty two sessions may not be enough period to improve the writing performance. Another possible explanation is attributed to the challenges facing the computer-based writing workshop. One of these challenges is the need for computer proficiency and typing skills (Wang and Kolen 2001, Gallagher et al. 2002). As a result, some participants may not feel comfortable with the computer medium; therefore some pupils do often need to have some technological aspects explicitly taught to them. Some pupils do not know how to download pictures from a camera and save them to a computer. Because the researcher wanted them to be able to do that independently, she took time to demonstrate the process. Time given to the explicit instruction on how to use computers and how to send e-mails may have affected the time

allocated to the writing process itself. A third explanation is that the two different modes of writing between what is being taught and how it was assessed may have confused the pupils and thus affecting their writing performance. It is not logical to teach pupils to write on computers and to test them on paper. Nonetheless, Harrington, Shermis, and Rollins (2000) believe that implementation of this type of change requires a great deal of preparation and consideration in order for it to be integrated successfully into programmatic curricula. A fourth explanation is lack of motivation. Some pupils faced problems during writing on computer or even during sharing their work on the internet. These problems make students lack interest and motivation in the writing process as a whole. A further possible explanation is the nature of computer-based tasks. Egyptian students, especially juniors, consider computer time as fun and enjoyment. Thus, they look at computer-based writing time as a time to use computer for enjoyment, and they do not pay much attention to their mechanics of writing and grammar. They write using net language as if they were chatting with friends on the internet or sharing on the facebook. Consequently, they lacked motivation in writing the academic paragraphs. A final possible explanation is plagiarism. Plagiarism is a serious academic concern started to appear as an enduring problem on the internet, especially with the big amount writing tasks. Some learners started to copy and paste their paragraphs from the internet and send them as if the paragraphs are theirs. This problem affected their writing performance because they did not give themselves the chance to write by themselves.

In an attempt to determine whether any change in writing performance from pre to post test was greater for one group rather than the other, the researcher used independent samples t-test between the two groups, employing a gain score in writing performance for each of the participants in the study. The results of the independent samples t-test was shown in the following table.



**Table 6. Independent Samples t-test for the Difference in the Mean Gain Scores of the Paper-based and Computer-based Groups' pupils Between the Pre and Post tests of Writing Performance**

Group	N	Mean Gain Score	S D	DF	t-value	Sig
Paper-based	25	16.820	1.785	48	20.328	0.00*
Computer-based	25	0.8132	1.617			

\* $p \leq 0.05$  (Significant)

As shown in table 6, a statistically significant difference existed between the pupils' mean gain scores in the paper-based group and that of the pupils in the computer-based group ( $t = 20.328$ ,  $p < 0.05$ ) in favor of the paper-based group. Accordingly, the third hypothesis was rejected. This finding indicates that the paper-based writing workshop was more effective than the computer-based writing workshop in developing the writing performance of preparatory stage pupils. This finding is attributed to the beneficial effects of the paper-based writing workshop in the discussion of the result related to the first hypothesis and the challenging nature of the computer-based writing workshop mentioned in the second finding. Such a finding found empirical evidence in a comprehensive review by Ziefle (1998) which reached the conclusion that paper is superior to computer, because of the display screen qualities whereby the eyes tire more quickly. Also, this result agrees with Kohler's study (2015). Kohler found that paper-based writing is more effective than computer-based writing.

Based on the previous statistical analyses performed on the data, the following results were found:

1. A statistically significant difference existed in the mean scores of paper-based group pupils on the pre and post tests of writing performance, in favor of post test.
2. No statistically significant difference existed in the mean scores of the computer-based group pupils on the pre and post tests of writing performance, in favor of post test.
3. A statistically significant difference existed between the mean gain scores of the paper-based and that of the

computer-based groups on the post tests of writing performance, in favor of the paper-based group.

### **Conclusion**

Within the delimitations of the study as well as the findings, the researcher could conclude that:

1. The paper-based writing workshop was effective on developing the writing performance of prep school pupils.
2. The computer-based writing workshop was not effective on developing the writing performance of prep school pupils.
3. The paper-based writing workshop was more effective than the computer-based writing workshop on developing the writing performance of prep school pupils.

### **Recommendations:**

In light of the findings of the study, the following recommendations have been formulated:

1. Preparatory stage instructors should reconsider their methods of teaching writing and should be familiarized with new methods in teaching writing performance.
2. Writing workshops should be used in teaching EFL writing.
3. Enough time should be allocated to developing prep stage pupils' writing.
4. Egyptian EFL pupils should develop their technological skills to be able to use innovative computer-assisted methods.

### **Suggestions for further research**

During the course of the study, the need for further studies in the following areas becomes apparent:

1. The effect of using workshop model on the writing performance of university pupils.
2. A comparative study between the effect of writing workshop and self regulated strategy development on the writing performance of university students is needed.

3. Research is needed on the effect of writing workshop on the critical reading of EFL university students.
4. The effect of using reading-writing workshop on the critical reading of EFL prospective teachers.

## References

- Abd Al-Fattah, E. (2012). The effect of using electronic portfolios on developing the English language writing skills for second grade preparatory students. Unpublished master's thesis, Helwan university, Egypt.
- Al-Sagheer, A. (2013). The effectiveness of sheltered instruction observation protocol in developing reading & writing skills for EFL Preparatory stage experimental language school students. Unpublished doctoral dissertation, Institute of Educational Studies, Cairo University, Egypt.
- Behymer, A. (2003). Kindergarten writing workshop. *Reading Teacher*, 57(1), 85-90.
- Bomer, R., & Laman, T. (2004). Positioning in a primary writing workshop: Joint action in the discursive production of writing subjects. *Research in the Teaching of English*, 38(4), 420-467.
- Calkins, L. M. (1986). *The art of teaching writing*. Portsmouth, NH: Heinemann.
- Calkins, L. (1994). *The art of teaching writing* (new ed.). Portsmouth, NH: Heinemann.
- Calkins, L (2006). *A guide to the writing workshop, Grades 3-5*. Portsmouth, NH: First Hand.
- Calkins, L., & Mermelstein, L (2005). *Firsthand*. Portsmouth, NH: Heinemann.
- Carroll, S. (2010, Spring). *Writer's Workshop vs. Writing Prompts: The Effect on First Graders' Writing Ability and Attitude towards Writing*. Paper presented at the 2010 Annual Conference of Georgia Educational Research Association, Savannah, Georgia.
- Cornelius-White, J. (2007). Learner-centered teacher-student relationships are effective: A meta analysis. *Review of Educational Research*, 77(1), 113-143. Retrieved on January

- 22<sup>nd</sup>, 2014 from <http://rer.sagepub.com/content/77/1/113.full>.
- Coskie, T. & Hornof, M. (2013). E-best principles infusing technology into the writing workshop. *The Reading Teacher* ,67 (1), 54–58.
- De Jong, E. J. & Harper, C. A. (2005). Preparing mainstream teachers for English-language learners: Is being a good teacher good enough? *Teacher Education Quarterly*, 32(2), 101-118.
- Dorn, L., & Soffos, C. (2001) Scaffolding young writers: A writer's workshop approach. Portland, ME: Stenhouse.
- Ebrahim, E.Y. (2015). A Program based on English digital stories to develop the writing performance and reflective thinking of preparatory school pupils. Unpublished master thesis, Faculty of Education, Suez University, Suez.
- Egloff, S. M. (2013). *A Survey of fifth grade writing teachers on their instructional writing practices* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI Number: 3549846).
- Eitelgeorge, J.S., & Barrett, R. (2004). Multiple Continua of Writing Development in a First Grade Classroom. *Reading Research and Instruction*, 43(2), 17-64. Retrieved September 19<sup>th</sup> , 2009 from Research Library. (Document ID: 771893021).
- Endres, H. (2012). A comparability study of computer-based and paper-based writing tests. Cambridge ESOL: Research Notes, 49, 26-32.
- Feinberg, B. (2007). The Lucy Calkins project: Parsing a self-proclaimed literacy. *Education Next*, 7, 26-31.
- Ferris, S. P. (2002). Writing electronically: The effects of computers on traditional writing. *The Journal of Electronic Publishing*, 8 (1). retrieved September 9<sup>th</sup>, 2014 from <http://quod.lib.umich.edu/j/jep/3336451.0008.104?view=text;rgn=main>.
- Gallagher, A., Bridgeman, B., & Cahalan, C. (2002). The effect of computer-based tests on raciaethnic and gender groups. *Journal of Educational Measurement*, 39, 133–147.

- Gayomali, C. (2015). 4 benefits of writing by hand. *Mental Floss* (on-line). Available at: <http://mentalfloss.com/article/33508/4-benefits-writing-hand>
- Gee, J. P. (2003). What video games have to teach us about learning and literacy. *Computers in Entertainment (CIE)*, 1(1), 20-20.
- Graham, S., & Perin, D. (2007). *Writing next: Effective strategies to improve writing of adolescents in middle and high schools – A report to Carnegie Corporation of New York*. Washington, DC: Alliance for Excellent Education.
- Graves, D. H. (1983). *Writing: Teachers and children at work*. Portsmouth, NH: Heinemann.
- Haager, D., & Klingner, J. (2005). *Differentiating instruction in inclusive classrooms*. Boston, MA: Pearson Education.
- Hamp-Lyons, L. (2002). The Scope of Writing Assessment. *Assessing writing*, 8, 5-16.
- Harrington, S., Shermis, M.D., & Rollins, A.L. (2000). The influence of word processing on English placement test results. *Computers and Composition*, 17, 197-210.
- Harris, K. R., Graham, S., & Mason, L. (2006). Improving the writing, knowledge, and motivation of struggling young writers: Effects of self-regulated strategy development with and without peer support. *American Educational Research Journal*, 43, 295–340
- Heffernan, J., Linclon, J. & Atwill, J. (2001). *Writing A college Handbook* (5<sup>th</sup> ed.). New York: W.W.Norton & Company Ltd.
- Hicks, T. (2009). *The digital writing workshop*. United States of America: Heinemann, Portsmouth, NH.
- Hudson, R. F., Lane, H. B., & Mercer, C. D. (2005). Writing prompts: The role of various priming conditions on the compositional fluency of developing writers. *Reading and Writing*, 18(6), 473-495. Retrieved from PDF: <http://vnweb.hwwilsonweb.com/hww/jumpstart.jhtml?recid=0bc05f7a67b1790ebc54cbffa611b2554dcf87ccd74e7d4f4deda691ffc5710c8fb6fcb4b2edb4db&fmt=P>

- Jasmine, J., & Weiner, W. (2007). The effects of writing workshop on abilities of first grade students to become confident and independent writers. *Early Childhood Education Journal*, 35(2), 131-139. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ775798&site=ehost-live>; <http://dx.doi.org/10.1007/s10643-007-0186-3>
- Kajder, S. (2007). Bringing new literacies into the content area literacy methods course. *Contemporary Issues in Technology and Teacher Education*, 7 (2), 92-99.
- Kiuhara, S.A., Graham, S., & Hawken, L.S.(2009). Teaching writing to high school students: A national survey. *Journal of Educational Psychology*, 101(1), 136-160.doi:10.1037/a0013097
- Knudsen, R. (1990). Research and practice: A question for writing teachers: How much help is too much? *English Journal*, 79, 91-93.
- Kohler, B. (2015, spring). Paper-based or computer-based essay writing: differences in performance and perception. *Linguistic Portfolios*, 4 (13), 130-146.
- Kress, G. R. (2003). *Literacy in the new media age*. New York: Routledge.
- Leu, D. J. (2006). New literacies, reading research, and the challenges of change: Adeictic perspective. In J. Hoffman, D. Schallert, C. M. Fairbanks, J. Worthy, & B. Maloch (Eds.), *The 55th Yearbook of the National Reading Conference* (pp.1-20). Milwaukee, WI: National Reading Conference.
- Mandel, S. (2000). Encouraging relevant writers. *Teaching Pre K- 8*, 31(3), 102-103.
- Mester, M. (2011). *The effects of writer's workshop on writing achievement in the kindergarten classroom*. Unpublished doctoral dissertation. College of Education, Walden university.
- Meyers, K., & Pough, J. (2002). Comfort in discomfort: Experimenting with writing workshop in third grade. *Primary Voices K-6*, 1(2), 38-47.
- Moore, M. (2011). *Implementing a workshop approach to literacy as a means of building motivation*. Teaching and Learning

- Department Capstone Project, Vanderbilt University. Retrieved from <http://hdl.handle.net/1803/5020>.
- Noyes, J. M. & Garland, K. J. (2008). Computer-Vs. paper-based tasks: are they equivalent? *Ergonomics*, 51 (9), 1352-1375. DOI: 10.1080/00140130802170387.
- Oostendorp, H.V. & De Mul, S. (1996). *Cognitive aspects of electronic text processing*. Greenwood publishing company.
- Peha, S. (1995-2003). *Teaching that makes sense: welcome to the writer's workshop* (On-Line). Available at: <http://www.ttms.org/PDFs/05%20Writers%20Workshop%20v001%20%28Full%29.pdf>
- Ramsay, J.D. (2011). *Can we skip lunch and keep writing? Collaborating in class and online, grades 3–8*. Portland, ME: Stenhouse.
- Reid, J. (2002). Writing. In R. Carter & D. Nunan (Eds.). *the cambridge guide to teaching English to speakers of other languages* (4<sup>th</sup> ed., pp. 28-33). Cambridge: Cambridge University Press.
- Sahakian, S.K., Abdel-Moneim, A., & El-Hadidy, R.E. (2012). Developing EFL writing skills of preparatory stage by using self-assessment. *Journal of Mansoura Faculty of Education*, 80 (1), 3-32.
- Scherer, M. (2011). Transforming education with technology: An interview with Karen Cator. *Educational Leadership*, 68(5), 17–21.
- Serag, N. H. (2014, April). The effect of a writing workshop model on enhancing graduate Students' paraphrasing skills. *Journal of Mansoura Faculty of Education*, 87(1), 57-77.
- Smith, B.E. (2012). Student engagement with model texts in writing workshop. Teachers college, Columbia University, ProQuest dissertations and theses .(UMI : 3545654)
- Wang, T. & Kolen, M.J. (2001). Evaluating comparability in computerized adaptive testing: Issues, criteria and an example. *Journal of Educational Measurement*, 38, 19–49.

- Yancey, K.B. (2009). 2008 NCTE presidential address: The impulse to compose and the age of composition. *Research in the Teaching of English*, 43(3), 316–338.
- Ziefle, M. (1998). Effects of display resolution on visual performance. *Human Factors*, 40, 554–568.