USING WIKIS TO DEVELOP WRITING PERFORMANCE AMONG PROSPECTIVE ENGLISH AS A FOREIGN LANGUAGE TEACHERS

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ABSTRACT

This study aimed at investigating the effect of using wikis to develop prospective English as a Foreign Language (EFL) teachers’ writing performance. The participants were fourth year prospective EFL teachers at Suez Faculty of Education in Egypt. Thirty prospective EFL teachers participated in each of the experimental and control groups. Both groups were pre-tested by using the Writing Performance Test (WPT) for equivalence in their writing performance. The experiment was conducted at the beginning of the first term of the academic year 2009-2010. The experimental group and the control group were post-tested by using the WPT. Differences between the mean scores of the pre- and post-WPT were calculated by using the t-test. The results showed that statistically significant differences were found between the mean scores of the experimental group and the control group on the post-WPT in favor of the experimental group. The results also revealed that there were statistically significant differences in the mean scores of the experimental group between the pre- and post-WPT in favor of the post-WPT. These results revealed the effectiveness of using wikis in developing prospective EFL teachers’ writing performance. It is recommended that formal training of EFL writing instructors should introduce programs that based on using wikis in writing classrooms to develop their students' writing performance. Suggestions for further research include investigating the effect of using wikis on developing prospective EFL teachers’ collaboration and reflection.

Key Words: wikis, writing performance.

1. 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 [32]. It is worth mentioning that writing plays an important role in prospective English as a Foreign Language (EFL) teachers' personal and professional lives. The possession of writing skills can open up real possibilities in prospective EFL teachers' professional and personal lives [31].

Technology has added a new type of literacy which is referred to as digital fluency [34]. It has opened up new approaches for designing courses in writing [36]. Scholars stressed that digital fluency will be another prerequisite for sociability, lifelong learning and employment opportunities [42]. With the emergence of the Internet, computer technology has extended its potential and possibilities in assisting language learning. Moreover, the Internet provides new applications which encourage individual expression and consistent community development [33]. Thus, educators attempted to improve students’ independent use of the Internet as well as students’ Internet-based communication and interaction skills [41].

Wiki is a major component of Web 2.0, the emergent generation of web tools and applications. 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 [7]. Besides, “Wikis could provide unique collaborative opportunities for education combining freely accessible information, rapid feedback, simplified HTML, and access by multiple editors, wikis are being rapidly adopted as an innovative way of constructing knowledge” [3, p.1]. A wiki could also accumulate users’ opinions and cultivate active online communities on the web [48].

Considering the important role of writing in prospective EFL teachers’ professional and personal lives and the benefits of using wikis as collaborative web tools which could be implemented in writing classrooms, a greater emphasis should be given to using wikis to develop prospective EFL teachers' writing performance. It is also important that prospective EFL teachers should be more concerned about developing their writing performance. Therefore, this study was conducted to investigate the effect of using wikis to develop prospective EFL teachers' writing performance.

2. Context of the study

The researcher worked as a lecturer of Curriculum and Teaching English as a Foreign Language (TEFL) at Suez Faculty of Education. She also supervised some groups of fourth year prospective EFL teachers at Suez Faculty of Education during their practicum at General Secondary Schools in Suez Governorate. It was clear that these prospective EFL teachers suffered from weaknesses in their writing performance.

In an attempt to determine how serious the problem of writing performance of prospective EFL teachers is, the researcher conducted a pilot study on a random sample of 70 fourth year prospective EFL teachers at Suez Faculty of Education. The pilot study was conducted at the very beginning of the first term of the academic year 2009-2010. 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 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.

The researcher conducted a pilot study with 30 EFL supervisors who supervised fourth year prospective EFL teachers during their practicum at General Secondary Schools to discuss the problem of writing performance of fourth year prospective EFL teachers at Suez Faculty of Education. They asserted that fourth year prospective EFL teachers suffer from weaknesses in their writing performance. Besides, she conducted a pilot study with the teaching staff of English Department at Suez Faculty of Education to investigate their opinions regarding how serious
the problem of writing performance of fourth year prospective EFL teachers is. They asserted that fourth year prospective EFL teachers at Suez Faculty of Education suffer from weaknesses in their writing performance.

The researcher reviewed previous studies which were designed to investigate the writing performance of prospective EFL teachers at some Faculties of Education in Egypt. She found out that many studies were conducted because prospective EFL teachers suffered from weaknesses in writing in English language. Examples of these studies were the following studies [1; 2; 19; 25]. 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 instructor's assistance and feedback necessary during writing. Other reasons could be the lack of correction and feedback during teaching writing.

The researcher also conducted a survey on previous studies designed to investigate the use of wikis in teaching writing to EFL learners. She found out that previous studies conducted on using wikis in writing classrooms are relatively rare [12], although many researchers pointed out that wikis could assist interactive collaboration among students to develop their writing performance [5; 6; 11; 24]. It worth mentioning that wikis are everywhere, but the online literature has not yet begun to focus enough on them as effective tools that could develop EFL learners' writing performance [4].

3. Statement of the problem
As indicated by the results of the pilot studies on fourth year prospective EFL teachers' writing performance, it was found out that they suffered from weaknesses in their writing performance. These weaknesses 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. These writing weaknesses might be attributed to the inappropriate approaches of teaching writing provided to them. Using wikis is, therefore, suggested to develop fourth year prospective EFL teachers' writing performance.

3.1. Question of the study
How far will wikis help fourth year prospective EFL teachers in developing their writing performance?

4. Hypotheses of the study
4.1. There would be statistically significant differences between the mean scores of the experimental group and the control group on the post-Writing Performance Test (WPT) in favor of the experimental group.
4.2. There would be statistically significant differences in the mean scores of the experimental group between the pre- and post-WPT in favor of the post-WPT.

5. Purpose of the study
The main purpose was to investigate the effect of using wikis in teaching writing to reveal if this could provide an effective support to fourth year prospective EFL teachers to develop their writing performance.

6. Significance of the study
The results of this study may be significant to fourth year prospective EFL teachers as it represents an attempt to overcome the shortcomings in teaching writing in English language by offering a teaching strategy based on using wikis in writing classrooms. It also provided the experimental group with the overall benefits of peer interaction via collaborative writing. 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 Internet represented in the use of wikis into writing classrooms encouraging writing performance and group work among EFL learners.

7. Variables of the study
The independent variable is using wikis in teaching writing. The dependent variable is fourth year prospective EFL teachers' writing performance.

8. Delimitations of the study
The study was confined to:
8.1. Fourth year prospective EFL teachers at Suez Faculty of Education in Suez Governorate in Egypt as the researcher worked as a lecturer of Curriculum and TEFL at this faculty.
8.2. A limited duration for the experiment (five weeks, eight hours per week given on two days) as the training program included the following five sessions: pre-writing, drafting, revising, editing and publishing.

9. Definition of terms
9.1. Wikis
A wiki is defined as "a collective website where a large number of participants are allowed to modify or create pages using their web browser" [16, p. 19].

Wikis are defined as "quick user-friendly web pages that allow users to create, edit, and save text collaboratively" [46, p.59].

The present study defined a wiki as a web based tool which can be used by users to collaboratively create, edit and publish written products.

9.2. 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.

10. Theoretical framework
10.1. Historical development of wikis
The term 'wiki' was taken from the Hawain language where 'wiki wiki' means 'quick' to represent that a wiki web site could be quickly created for a collaborative team [37]. The term is generally attributed to Ward Cunningham, who, in 1995 created and conceptualized the first wiki. It was used as a composition system, a discussion medium and a collaborative tool. It was described as "a freely expandable collection of interlinked web pages, a hypertext system for storing and modifying
Wiki is a newcomer to the Internet and have recently been recognized as viable tools for teaching and learning. Wikis have been successfully used in education as early as 1999 [30]. Their educational uses were first pioneered by computer science academics. Most publications about the educational uses of wikis have originated from fields related to computer sciences [26]. Nowadays, the wiki technology is starting to penetrate all the academic fields of academia and the use of wikis for educational applications is increasing [45]. Besides, wikis are gaining ground in higher education [13].

The reason for the growing popularity of wikis is that they allow their users to create and change content more easily and quickly than with traditional websites. All one needs to edit a wiki is a computer with internet connection and web browser. Users working on their first wiki can easily create and publish a basic page. This ease of editing means that the teachers and students can quickly learn and start expanding any page or site. Those pages can be used for discussion, posting assignments, and various collaborative projects. Wiki technology makes it very easy to work on a collaborative document, track work in progress and see how much each individual in a group has contributed to the assignment [10; 18; 21; 35].

The most popular and well known wiki is Wikipedia, The Free Encyclopedia. It is considered an online encyclopedia created by users from all over the world. Wikipedia has been successfully used and edited by millions [24]. It is regarded as a valuable tool for group writing assignments which involve referencing, translating, or copy editing. Anyone can add entries to Wikipedia and anyone can change or add to existing entries. There are number of wiki tool providers on the web where teachers and students can create their wikis for free, example is Wikispaces. Other examples of public wikis are Wikevent which is a worldwide calendar of public events such as lectures, classes and sporting events and Wiktionary which is a collaborative project to produce a free dictionary with definitions, pronunciations, synonyms, antonyms and translations.

10.2. Characteristics of a wiki

The following section introduces characteristics of a wiki as indicated by [3; 15; 17; 29].
- The term wiki refers to the site of participation on the web and to the document created by participants.
- A wiki is basically a database for creating, browsing and searching through information.
- A wiki can be personal but usually open to collaboration. It could allow an individual user to edit her/his own work. It could also allow multiple contributors to edit their own work and the work of others.
- It is easy to create and update individual pages and the entire wiki as well. Wikis do not need detailed technical knowledge of HTML on the part of the user. One does not need to download any software to work with wikis.
- Wikis can record each change which occurs over time, so that at any point a page can be compared and reverted to any of its previous versions.
- Most wikis have an editing toolbar, therefore, a user does not need to learn a wiki syntax. They are also searchable as they allow users to categorize pages into a taxonomic system of their choice.
- A wiki supports easy addition of hyperlinks, provides every content page with its dedicated discussion page, allows for user authentication and different access levels, inform interested users when a particular page has been edited, and allows easy viewing of all contributions by an individual user.

10.3. Previous studies related to the application of wikis in classrooms

Rick, Carroll, Holloway-Attaway and Walker (2002) conducted a research intended to study two sections of an English composition class, taught by the same instructor. In the first section, the instructor used CoWeb, a wiki-based tool, to complete various assignments. The second section conducted the same activities, but worked in a discussion on line environment. Results showed that the CoWeb section outperformed the second section in each rating category.

Byron (2005) investigated the uses of wikis in his distance learning symbolic logic class. The participants were required to summarize various assigned readings and post them on the wiki. They were also allowed to edit collaboratively those postings to develop accuracy and completeness. Results revealed the usefulness of using wikis as collaborative learning tools.

In a study conducted by Engstrom and Jewtt (2005), students were organized into groups of four to six students to make the wiki web pages manageable. Results showed that the participated students expressed satisfaction with their learning. They indicated that they had the most positive experience. The participated teachers also pointed out that their technology knowledge and skills improved after the project and that most students became independent about their learning.

The study designed by Forte and Bruckman (2006) investigated how to design wiki publishing tools and curricula to support learning among students. Results revealed that collaborative publishing on a wiki offered a model for creating authentic classroom writing activities.

Richardson (2006) concluded in a study about wikis that they facilitate a collaboration environment, which provides the participated students with opportunities to learn how to work collaboratively, create knowledge and operate in a world that values group effort. Results of the study showed that the students learned from each others' work and from the process of working on their group assignments because a wiki is an open editing and collaborative writing environment.

Cobb (2007) conducted a study to investigate the use of wiki to encourage active learning and collaborative problem solving in legal education. It discussed a legal research and writing class in which students used wiki site to collaboratively gather information. Results indicated the usefulness of using wikis in active learning and collaborative problem solving.

Lundin (2008) conducted a study about the use of wikis in first year composition classes. It was assumed that wikis can challenge a number of traditional pedagogical assumptions about the teaching of writing. These assumptions were organized in four categories of interest to composition studies. These categories were new media
composition, collaborative writing, critical interaction and online authority. Results showed that wikis were effective in helping facilitate improvement in composition classes.

Mak and Coniam (2008) designed a study intended to investigate authentic writing through the use of wikis by year 7 ESL students in a secondary school in Hong Kong. The researchers used wikis as a collaborative writing platform to produce. Over a period of two months, the participated students designed and put together, through a series of successive drafts, a description of their secondary school. Results showed the usefulness of using wikis in teaching writing to students at the Secondary Stage.

11. Research design
The present study was a pre-, post-test quasi-experimental study. It involved two groups: an experimental group and a control group. The two groups were fourth year prospective EFL teachers at Suez Faculty of Education. They were pre-tested by using the WPT before conducting the experiment to be sure that they were equivalent in their writing performance. Then, the experimental group was trained by using the program that based on using wikis in writing. The experiment lasted for five weeks, eight hours per week given on two days during the first term of the academic year 2009-2010. The experimental group and the control group were post-tested by using the WPT. Differences between the mean scores of the pre-and post-WPT were calculated by using the t-test.

11.1. Participants
The participants were fourth year prospective EFL teachers at Suez Faculty of Education. All of them were female and their ages ranged from 20 to 21 years old. All the participants were proficient in using computer as all of them obtained the International Computer Driving License (ICDL) before conducting the experiment. All of them had no experience with writing by using wikis. The participants were randomly chosen and assigned into two groups, an experimental group (30 students) and a control one (30 students). The experimental group and the control group used to write their essays by using word program on computer. Advantages of writing by using word program 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. Researchers revealed that the quantity and the quality of writing could be improved in the computer-assisted classroom [47]. The researcher taught the control group and the experimental group. She trained the experimental group on the program that based on using wikis in writing persuasive essays while the control group was taught to write the same persuasive essays by using word program on computer as they used to do during the writing lessons.

To be sure that the control group and the experimental group were equivalent in their writing performance before conducting the experiment, the researcher pre-tested the two groups by using the WPT. Then, the t-test was used to test the significance of the differences between the two groups on the pre-WPT. The results indicated that the mean score of the experimental group was 38.60 with a standard deviation of 5.30, and the mean score of the control group was 38.03 with a standard deviation of 4.27. 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 = 0.651). This indicates that the control group and the experimental group were equivalent in their writing performance before the application of the experiment. These findings are presented in Table (1).

Table 1
The t-value of the difference in the mean scores between the experimental group and the control group on the pre-WPT

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>DF</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>30</td>
<td>38.60</td>
<td>5.30</td>
<td>58</td>
<td>0.455</td>
<td>0.651</td>
</tr>
<tr>
<td>Control</td>
<td>30</td>
<td>38.03</td>
<td>4.27</td>
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</table>

11.2. Organisation of the experimental group
The researcher divided the 30 students of the experimental group into six groups with 5 students in each group because it would be easier for the students to collaborate in small groups. Each group was responsible for writing a persuasive essay that each group had chosen from a list of persuasive essay topics. The process writing approach was used for writing the essays because the editing functions of wikis make them a practical tool for the students to practice drafting, revising and editing. The researcher distributed roles among the members of each group as follows: a leader who was responsible for posting and editing of the written products, encouragers who should encourage group members to contribute, elaborators who were responsible for explaining important and unclear points and recorders who were responsible for recording the assignments done by the group. Besides, the researcher encouraged the students in each group to exchange roles throughout the program sessions.

11.3. Scoring
Three raters who had similar experience in TEFL at the university level and worked at the same faculty were assigned to mark the control and the experimental groups' pre- and post-WPT by using the Writing Performance Rubric (WPR). The researcher trained the three raters on the proper use of the WPR to score the control and the experimental groups' pre- and post-WPT. A set of anchor papers were used as examples to train the three raters on the scoring process by using the WPR. The inter-rater reliability between the three raters was checked to ensure that there would be no difference in their scores. The obtained inter-rater reliability was 0.93. The raters were informed that each participant's paper will be scored separately by each one of them on separate sheets. The average of the three raters' scores was considered the final score of the participants in the experimental and control groups.

12. Instruments
12.1. The Writing Performance Test (WPT)
The researcher designed a Writing Performance Test (WPT). The topic was a persuasive essay which is a type of writing that requires the writer to convince the reader of a point of view and to support it with convincing reasons. The WPT was used as an assessment tool of the writing performance of the experimental group and the control group. The three raters used the WPR to evaluate the
The WPT was administrated to a pilot sample (50 fourth year prospective EFL teachers at Suez Faculty of Education from the participants of the present study). Piloting the WPT was administrated at the very beginning of the first term of the academic year 2009-2010. The first reason behind piloting the WPT was to find out whether the WPT and its directions were clear and understandable to fourth year prospective EFL teachers. The second reason of administrating the WPT was to estimate the time that fourth year prospective EFL teachers would take in answering it. The pilot sample pointed out that the WPT and its directions were clear and understandable to them. The researcher found out that the appropriate time for answering the WPT was two hours.

To assess the validity of the WPT, the researcher submitted it to a jury of judges, Professors of Curriculum and TEFL at some Faculties of Education in Egypt. They agreed upon its validity for assessing fourth year prospective EFL teachers' writing performance. The researcher also used criterion related validity to assess the validity of the WPT. Criterion related validity was assessed as the researcher applied the WPT on a pilot sample (80 fourth year prospective EFL teachers at a Faculty of Education apart from the participants of the present study). The researcher applied on the same pilot sample another Writing Performance Test that included a similar question and directions of the same level of difficulty. Correlation coefficient was calculated for the degrees of scale on the two tests. The statistical correlation of (Pearson, Kendall and Spearman) was found as follows: (0.979, 0.908, and 0.974) and it was at the level 0.01. This result indicates the validity of the WPT.

In order to assess the reliability of the WPT, the researcher used the test / retest method of calculating the reliability coefficient of the WPT. The test/retest was applied on a random sample of 80 fourth year prospective EFL teachers at a Faculty of Education apart from the participants of the present study. The statistical correlation of (Pearson, Kendall and Spearman) was found as follows: (0.756, 0.752, 0.650). It is a high correlation coefficient at the level 0.01. This shows a strong correlation between the first and the second applications of the same pilot sample and reveals that the WPT enjoys a high degree of reliability. The researcher also used alpha coefficient to assess the reliability of the WPT. The value of the alpha coefficient was 0.641 which was considered sufficient to conduct the experiment.

12.2. The Writing Performance Rubric (WPR)

The researcher designed a Writing Performance Rubric (WPR) to be used by the three raters to assess the writing performance of the control group and the experimental group on the pre- and post-WPT. To assess the validity of the WPR, the researcher submitted it to the same jury members before it was used. They agreed upon the validity of the WPR.

13. Materials

13.1. A list of persuasive essays

The researcher developed a list of six persuasive essay topics to be given to the experimental group and the control group. These topics were chosen from the essay course provided to fourth year prospective EFL teachers at Suez Faculty of Education. To ensure the validity of these topics, the same jury members were consulted. The jury members indicated the validity of the persuasive essay topics for the present study.

13.2. A program based on using wikis to develop prospective EFL teachers' writing performance

The researcher designed a program which was based on using wikis in the writing classrooms. This program was constructed to train the experimental group on using wikis when they write essays. The researcher assessed the validity of the program by submitting it to the same jury members. They asserted the validity of the program.

Framework of the program

- **Goal:** By the end of the program, the experimental group will be able to develop their writing performance.

- **Training activities:** The researcher conducted the following sessions for training the experimental group: pre writing session, drafting session, revising session, editing session and publishing session.

- **Teaching aids:** The following teaching aids were used throughout the sessions of the program:
  - A white board
  - Charts
  - An LCD projector
  - Computers with Internet access

- **Materials:** Providing the experimental group with printed materials prepared by the researcher for the purpose of introducing the topics included in the different sessions of the program.

- **Assessment:** To be sure that every student in the experimental group participated in each session, the researcher provided every student with an assessment sheet by the end of each session.

14. Treatment

To investigate the effect of using wikis on developing fourth year prospective EFL teachers' writing performance, the researcher trained the experimental group throughout all the sessions of the experiment by using a program based on using wikis in writing. The first session included training the experimental group on the pre writing stage. In it, the researcher held a conference with the experimental group to discuss topics which are related to wikis characteristics, uses and benefits. The experimental group was also trained on how to write a wiki page, edit an existing page on a wiki and view previous pages edited on a wiki. Then, the researcher divided the experimental group into six groups with five students in each group, provided the groups with a list of persuasive essay topics and asked each group to choose a topic to write on. The students in each group were encouraged to brainstorm and generate ideas for the pro and con sides of the topic. After that, the researcher asked each group to record together the information that they brainstormed on charts. By the end of this session, every student in the experimental group was provided with an assessment sheet on this session.

The second session involved training the experimental group on the drafting stage. In it, the researcher created a wiki for the experiment on Wikispaces. Wikispaces (www.
wikispaces.com) was chosen to be the wiki environment in the present study because of the following reasons:

* It is free
* It is easy to use.

The wiki created by the researcher contained six pages, one page for each group. The students in each group were provided with their page on the wiki. The researcher encouraged the students in each group to organize the charts they wrote in the pre-writing stage. They were also encouraged to write their drafts on their wiki pages. Each group was asked to read the drafts of other groups on the wiki pages. By the end of this session, the researcher provided every student in the experimental group with an assessment sheet on this session.

The third session included training the experimental group on the revising stage. In it, the researcher held a conference with each group to explain how to organize ideas into coherent paragraphs, write topic sentences and arrange statements for emotional appeal by using strong and exact words. After this conference, the students in each group were encouraged to go back to their group page on the wiki and to revise the draft of their group page. Then, the students in each group were asked to look at their written work on the wiki pages critically considering audience questions and comments. She also encouraged the students in each group to read each other's drafts on the wiki pages and to suggest improvements. By the end of this session, every student in the experimental group was provided with an assessment sheet on this session.

The fourth session included training the experimental group on the editing stage. In it, the researcher held a conference with each group to review their written product and to indicate the common mistakes done when they write. The students in their groups were encouraged to look at their wiki pages to scan their writing to check spelling, grammar and sentence structure to modify and rearrange ideas. The researcher helped the students evaluate whether the content style and goals had been achieved. She also provided them with mini-lessons based on their errors in specific areas such as punctuation, spelling and grammar. Then, the students were encouraged to reduce the texts and edit them after concentrating on the most important information. By the end of this session, the researcher provided every student in the experimental group with an assessment sheet on this session.

The fifth session involved training the experimental group on the publishing stage. In it, the students in each group were asked to publish their final copy of writing on their wiki page. Then, the researcher encouraged the students in all groups to read each other's essays and to write responses to the published written essays. By the end of this session, the researcher provided every student in the experimental group with an assessment sheet on this session.

By the end of the training sessions, the researcher posttested the experimental group and the control group by using the WPT. The three raters used the WPT to evaluate the writing performance of the experimental group and the control group on the post-WPT. The researcher compared and analyzed the data obtained from the pre-and post-WPT.

15. Results and discussion

15.1. Hypothesis one results: The researcher used the t-test to test the significance of the differences between the experimental group and the control group on the post-WPT. The results indicated that the mean score of the experimental group was 79.86 with a standard deviation of 7.16 while the mean score of the control group was 38.23 with a standard deviation of 4.52. The results also showed that the difference in the mean scores between the experimental group and the control group was statistically significant ($t = 26.908, p = 0.000$). Hence, this hypothesis was accepted. These findings are presented in Table (2).

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
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<tbody>
<tr>
<td>Experimental</td>
<td>30</td>
<td>79.86</td>
<td>7.16</td>
<td>58</td>
<td>26.908</td>
<td>0.000</td>
</tr>
<tr>
<td>Control</td>
<td>30</td>
<td>38.23</td>
<td>4.52</td>
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This result showed that the experimental group achieved a significant improvement in their writing performance on the post-WPT than the control group. Therefore, it could be concluded that the experimental group trained on using wikis in writing essays did better on the post-WPT than the control group who did not receive this training. This significant result is due to using wikis in writing as they enabled the experimental group to have the responsibility for their own learning. The experimental group made decisions about the choice of the topic and collaborated as they wrote by using wikis. Moreover, Wikis are easy to learn and use. Thus, they stimulated the experimental group's creativity and motivation for writing. Wikis also worked as organizational tools for synthesizing ideas and group reflection. Due to these reasons, the experimental group developed their writing performance on the post-WPT. This finding supports findings revealed in previous studies which investigated the effect of using wikis in writing classrooms and revealed their usefulness in developing learners' writing. Examples are the following studies [23; 39; 40; 44].

15.2. Hypothesis two results: The researcher used the t-test to test the significance of the differences in the mean scores of the experimental group between the pre-and post-WPT. The results indicated that the mean score of the experimental group on the pre-WPT was 38.60 with a standard deviation of 5.30. The mean score of the experimental group on the post-WPT was 79.86 with a standard deviation of 7.16. The results also revealed that the difference in the mean scores of the experimental group between the pre- and post-WPT was statistically significant ($t = 25.481, p = 0.000$). Thus, this hypothesis was accepted. These findings are presented in Table (3).

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
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<th>SD</th>
<th>DF</th>
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</thead>
<tbody>
<tr>
<td>Pre-experimental</td>
<td>30</td>
<td>38.60</td>
<td>5.30</td>
<td>26</td>
<td>25.481</td>
<td>0.000</td>
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<tr>
<td>Post-experimental</td>
<td>30</td>
<td>79.86</td>
<td>7.16</td>
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</table>

This result proved that the experimental group achieved a significant improvement in their writing performance on the post-WPT than they did on the pre-WPT. This significant result is due to the training program based on
using wikis the experimental group received. Using wikis in writing stimulated the processes of sharing ideas and reflecting on others' written products among the experimental group. It also facilitated group work, increased communication and flexibility. Wikis provided the experimental group with opportunities to exchange ideas and to give and receive feedback when they write. This enabled them to learn from one another and develop their writing performance. Moreover, Wikis helped the experimental group increase the efficiency of writing documents collaboratively as wikis assisted group work and facilitated creating a positive learning experience. Therefore, the experimental group developed their writing performance on the post-WPT. The result of this hypothesis agrees with results revealed in previous studies about the positive effects of wikis in writing classrooms. Examples are the following studies [20; 28; 35; 37]. It also agrees with studies which showed that web based language instruction helped learners produce better writing quality and more writing quantity. Examples are the following studies [8;27; 38; 47].

16. Conclusion
It can be concluded from the present study that the training program based on using wikis in writing classrooms proved to be effective in developing the experimental group's writing performance. Wikis provided a collaborative environment that encouraged the experimental group to engage effectively in the writing process and thus they improved their writing performance. Using wikis also supported peer review and reflections. Moreover, wikis enabled the experimental group to effectively participate and contribute in writing their essays 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. Wikis 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 wikis enhanced the participants of the experimental group to collaborate with each other as well as learn from each others' work and helped them develop their writing performance. The research results agreed with previous studies which revealed that wikis could provide a flexible user friendly atmosphere for collaboration, knowledge creation and interaction in writing classrooms. Majority of the experimental group indicated that they enjoyed working with wikis. They asserted that the training program based on using wikis was effective in helping them develop their writing performance.

17. Recommendations
- Formal training of EFL writing instructors should introduce programs that based on using wikis in writing classrooms to develop their students' writing performance.
- Published materials about using wikis in writing classrooms should be available to teachers and students.
- Curriculum designers, teacher-trainers and textbook writers should provide strategies based on using wikis in teaching writing to EFL learners at all Stages.

18. Suggestions for further research
- A study is needed to investigate the effect of using other web 2.0 tools such as blogs on developing prospective EFL teachers' writing performance and on their attitudes towards web 2.0 tools use in EFL classrooms.
- A study is needed to investigate the effectiveness of using wikis in helping prospective EFL teachers improve collaboration and reflection.
- A study is needed to investigate the effect of using wikis on developing General Secondary Stage EFL students' writing fluency.

References


