The Effect of Using Hypermedia Web Browsers on EFL Students' Achievement in Writing Academic Essays

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Received: Jan. 26, 2017   Accepted: Feb. 7, 2017   Published: February 12, 2017
doi:10.5296/ijl.v9i1.10653   URL: http://dx.doi.org/10.5296/ijl.v9i1.10653

Abstract
This study assesses the effect of using hypermedia web browsers including hypertext links on EFL university students' achievement in writing academic essays in English compared to using other two writing approaches (The product writing approach and the process writing approach). The participants of the study (108 undergraduates enrolled in Writing II Course at Al-al-Bayt University) were assigned to 3 groups: group A (36) used the product writing approach; group B (35) used the process writing approach; whereas group C (37), which was assigned as the experimental group used the hypermedia web browsers approach. Every participant in the three groups produced four essays on topics chosen from current oriented events under the required conditions of each approach. Twelve weeks later, the participants were asked to write the same three essays after implementing the experiment. Two English language instructors from the English Language Department were asked to follow the procedures and instructions of teaching this writing course. One has taught groups A and B in the classrooms using the product writing and the process writing approaches while the other taught the experimental group (group C) via using hypermedia web browsers approach in the computer lab. Means, standard deviations and ANCOVA were used for statistical analysis. Three categories of assessing the writing essays (organization, content, style and mechanics) were considered in correcting the participants' written essays. The experiment lasted for three months during the first semester of 2015/2016. The findings indicated that there were statistically significant differences in the mean scores of the post-written essays of group C due to browsing the web for relevant information on current events. Recommendations were included for
pedagogical purposes in the writing courses in English for EFL students at the university level.

Keywords: Hypermedia web browsers approach, Product writing approach, Process writing approach, Current events.
1. Introduction and Background of the Study

Browsing the web via hypermedia and hypertext links for transferring data on current events has become the main concern of this digital generation. Specifically, university students spend most of their time navigating the net and browsing the web sites to independently trace information, discuss hot issues and have fun with others on interesting topics. Some studies (Prensky, 2001), (Wang, 2003), (Oblinger & Oblinger, 2005), ( Ramey, 2008), ( Ryberg, Dirckinck-Holmfeld, and Jones, 2010), ( Jones, and Shao, 2011) have described this generation as visually literate, and having the ability to weave together images, text, and sound in a natural way, and more importantly assimilate disparate information from various sources. Those interested researchers have addressed this generation as the NetGen since this digital generation has become crazy of browsing web pages and tracing applications of various topics and events; such as, incredible inventions and innovations, cynical tricks, critical moments, sports, fashions, electronic shopping, interesting situations, discussions, accidents, crimes, social occasions, political affairs, comments, complaints in addition to other snap shots. Undoubtedly, as most browsers are free and available to download, this NetGen allows users to communicate and utter comments that cover most of the social media sources. Moreover, this Net generation is eager to access sites, trace events and react on the web by writing smart comments that express the communicators' awareness about such issues. Actually, they start to create funny words, meaningful expressions and cute terms on the events they are interested in. It seems that they are relatively motivated to write spontaneously on topics which may automatically result in improving their writing skills.

However, the writing process requires some other hypertext links that the students should relatively master, including a combination of several elements of which the most prominent is gathering information for content purposes. Although the main concern of teaching writing is limited to teaching grammar, spelling, punctuation, choice of words, organizing ideas, in addition to other mechanics, students find it difficult to find information relevant to the target topics for writing about. In addition, identifying an instructional approach to teaching essay writing in English for EFL students seems a confusing process due to various factors related to the components of the writing process. Teaching how to write essays in English is a daunting task for teachers themselves, either. Thus, it is unreasonable to expect EFL students to easily write essays with minimum errors. As Hirayanagi (1998, p. 21) and Takagi (2001, pp. 5-9) confirm by saying: " University students' ability to write academic essays in-depth is widely regarded as one of the hallmarks of higher education. At least, they are supposed to write clearly about topics related to their interests". EFL teachers always complain that their undergraduate students' writing is at a less than adequate level (see Hayes & Flower, 1980, Sharples, 1999, Bereiter & Scardamalia’s studies 1982, 1987, Muncie 2002, Kasper & Petrello, 1996, Hans 2002 and Riazi & Mir, 2002). A review of relevant studies in this caliber indicates that learners' problem with writing is attributed to various factors, of which the most prominent is lack of relevant information and authentic materials to be used in both writing essays and oral classroom discussions. A suggested solution to solve the main part of this problem could be the possibility of acquiring information through
navigating the websites. Other problematic factors are easy to control due to the multimedia tools that could be used to correct grammar, spelling and text organization through the use of the Internet correctors. Therefore, using web quest activities in writing is inevitably one of the ways that emphasizes the learner-centered approach and enhances writing performance.

It was recently noticed that learners are familiar with some facilities of the multimedia tools of which the teachers know very few. In spite of this fact, teachers cannot overlook the interests of this digital generation due to the abundant contributions of the multimedia offered at the global level. It is therefore crucial to discuss the rationale and benefits of browsing the websites to improve the students' writing skills in the language classroom. Despite the great spread of the emerging academic technologies of multimedia (word processing, concordances, corpora, grammar and spelling correctors, e-mail, the Internet, and the worldwide web), various studies indicate that there is a need to investigate the effects of the Internet on the learners' achievement in English. Stepp-Greany (2002) urges researchers to conduct studies in this field as he assumes that studies focusing on the Web direct impact on learners’ achievement of specific language skills, such as writing are few. The relationship between learners’ perceptions of the effect of the Internet use and their language achievement remains an open question for investigation, as well. Moreover, Brandl (2002) points out that little empirical research exists that demonstrates how Web resources can be integrated into foreign language instruction to yield expected outcomes.

Consequently, this study has been conducted to prove some points: firstly, a lot of writing problems are solved by the new innovations offered by the internet; such as, grammar checkers and spelling correctors. Secondly, it aims to use three writing approaches that students at the university level should be familiar with. Thirdly, this study attempts to use authentic material which is a must in the EFL classroom and for writing essays which are relevant to the learners' interests. Finally it focuses on the learner-centered approach that overwhelms the teaching-learning situations.

Considering the above points, the researcher believes that providing facilities by the internet may make it easier for learners to write independently by referring to authentic material on the web via using software tools to correct and edit their work. It becomes very acceptable to integrate technology into the EFL classroom for teaching writing skills. Hence, this study is an attempt to use an approach of browsing the web for tracing targeted events that may facilitate the writing process at the university level.

1.1 Statement of the Problem

Tackling EFL writing courses requirements is still one of the challenging issues for teachers and students, although different approaches and procedures have been implemented to improve the EFL learners' writing production.

Surveying 45 undergraduate EFL students' attitudes towards writing essays in English (enrolled in Writing Courses I and II at Al-al-Bayt University in Jordan), the researcher concluded that those students find it difficult to write an essay with adequate information. Deciding on which essay topics to write is usually a daunting task to most of them as they
lack rich information about certain topics. They need much writing assistance and supporting materials to write effectively. Besides, EFL teachers might feel frustrated by their students’ reluctance to write. However, with the advent of technology, an alternative approach is suggested via browsing the web and using the event-oriented web-based approach so as to investigate its effect on the EFL students' performance in writing.

1.2 Significance and Value of the Study

This topic is interesting due to various points: Firstly, it is a respond to the ultimate needs of this generation in the use of technology in learning and instruction. Secondly, EFL undergraduate students may find an easy available up-to-date source of authentic materials. Thirdly, students may attentively focus on the writing aspects during the process of navigating the web sites. Fourthly, writing follow up activities on the events may support their performance; and finally using web-based curricula could be a change for the students as it is a free and an available source of knowledge.

Consequently, this paper is expected to serve a number of prominent goals; such as, utilizing technology into the EFL classrooms to meet the needs of this digital age; using authentic material in the writing classes; focusing on learner-centered approach and enriching EFL students with sufficient information to supplement their writing performance.

As a researcher, I reckon that this study has been conducted to prove some main points: Firstly, a lot of writing problems are solved by the new innovations offered by the internet; such as, grammar checkers and spelling correctors. Secondly, it aims to use three writing approaches that students at the university level should be familiar with. Thirdly, this study attempts to use authentic material which is a must in the EFL classroom and for writing essays which are relevant to the learners' interests. Finally it focuses on the learner-centered approach that overwhelms the teaching-learning situations.

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1.3 Purpose of the Study

This study aims at investigating the effect of using hypermedia web browsers on EFL university students' performance in writing academic essays in English. It attempts to find out whether navigating web-sites for information of target topics may improve EFL learners' writing skills or not. It also tries to reveal whether EFL students who receive training on activities via event-oriented web-based approach perform better than those taught by the product and the process approaches or not. Accordingly, the following hypotheses and questions were raised to be checked and answered:

1.4 Hypotheses and Questions of the Study
Three hypotheses have emerged concerning the effect of browsing web sites for information that support the process of writing essays in English:

- There are no statistically significant differences at (α=0.05) among the mean scores of the EFL students' achievement on the posttest in writing English essays attributed to browsing web-sites for relevant information.

- There are no statistical significant differences at (α=0.05) among the mean scores of EFL students' achievement on the posttest attributed to training them on activities using the process based approach.

- There is no effect of browsing the web sites on any of the writing categories (organization, content, style and mechanics) on the experimental group students' achievement in writing.

Hence, this study attempted to answer the following three questions:

- Are there any statistically significant differences at (α=0.05) among the mean scores of the EFL students' achievement on the posttest in writing English essays attributed to navigating web-sites for relevant information?

- Are there any statistical significant differences at (α=0.05) among the mean scores of EFL students' achievement on the posttest attributed to training them on activities via using process based approach?

- Which category of writing (organization, content, style and mechanics) did the experimental group students, develop the most as a result of browsing the web sites?

1.5 Limitations of the Study

The findings of this study could not be generalized due to the following limitations:

1. The sample of the study is limited to the undergraduates in the English Language Department at Al-al-Bayt University. In addition, its size was small.
2. The study was limited to period of three months.
3. Correcting the writing papers is not that objective, although it is based on a correcting scale.
4. The study is limited to writing academic essays in English.
5. Time wise was not limited as the participants could browse the websites whenever they need; besides, instructors could not measure the number of hours the students spend browsing the sites for gathering information.
6. The participants are free to use any hyperlink to navigate the net for information in and outside the computer lab.

1.6 Current Approaches to Teaching Writing

Despite the fact that a variety of approaches to teaching writing are currently in use in
colleges, there is still a question of which approach is most adequate to teaching essay writing is waiting to be answered. It should be said that there is not necessarily any 'right' or 'best' way to teaching writing skills; however, several approaches are followed in the area of teaching writing of which Raimes (1983) presents the following:

**The Controlled-to-Free Approach** which emphasizes achieving mastery of grammatical and syntactic forms and accuracy rather than fluency or originality. **The Free-Writing Approach** stresses the quantity of writing rather than quality and content and fluency rather than accuracy and form. **The Paragraph-Pattern Approach** stresses students' ability to imitate model passages where they put scrambled sentences into the correct order. **The Grammar-Syntax-Organization Approach** which neglects writing features but focuses on writing simultaneously. **The Communicative Approach** stresses the use of authenticity where students are urged to use real life situations and write purposely. **The Process Approach** where students are required to follow the process of writing that includes pre-writing, planning, drafting, and post-writing activities.

In addition to these approaches, the following is a discussion of three other approaches ((The product approach, the process approach and browsing websites approach) of which this study is mainly concerned with.

1.6.1 The Product Writing Approach

This approach encourages students to imitate a model presented before starting the activity of writing. It could be said that this is similar to guided composition. Students are asked to choose from variety of tasks using their previous knowledge of structures and vocabulary to produce a writing essay. The product approach to writing is in line with the audio-lingual ideology with a structural linguistic view that language is a system of structurally related elements for the encoding of meaning, and a behaviorist view that language learning is basically a process of mechanical habit formation' (Richards and Rodgers, 2001, p57). Therefore, input that provides important source for imitation becomes the major driving force of language learning. Consequently, the product approach sees writing as being primarily about linguistic knowledge, stressing the appropriate use of vocabulary, syntax and cohesive devises. In addition, Zamel (1987) believes that most of the time writing tasks encourage learners to imitate, copy and transform models provided by teachers or textbooks. This may kill the students' creativity as they become imitators and the teacher plays the primary role as an examiner.

1.6.2 The Process Writing Approach

In a process approach to writing, focus is mainly given to the stages of writing rather than the product itself. The process of writing requires much thinking; and the instructor has to help the learner shape the meaning during writing the first draft, editing it and finally doing proof reading. Moreover, the process approaches to writing may activate brainstorming, group discussion and re-writing through following a sequence of activities based upon peer feedback. Students may practice various ways to approach writing. However, this process requires struggling for generating ideas. Tribble (1996, p37) says: 'The process approach to writing comes as a reaction against the product approach and is
based on the recognition of the writing process as cyclical, recursive or even disorderly rather than simple and linear. The focus shifts from the text to the writer. It lays particular stress on a cycle of writing activities which move learners from the generation of ideas and the collection of data through to the 'publication' of a finished text. Consequently, the teacher’s role as a model, a provider and an examiner also shifts to that of a facilitator who helps in a typical four-stage process: prewriting, composing/drafting, revising and editing.' It could be concluded that there the teacher may do most of the work so as to achieve an acceptable outcome of the writing.

1.6.3 Browsing Websites Approach

Browsing the websites to find information for writing courses has become the main concern of EFL students as the web browsers allow them to view resources that are free, available and easy to use. Mozilla Firefox, Google Chrome, Microsoft Internet Explorer, Apple Safari and the Opera browser are now intensively used by most EFL university students. The teaching procedures of this approach include tracing events on the net, collecting relevant data, doing the writing tasks, correcting the spelling and grammar errors by using the corrector tool, and then introduce the written essays. This process goes in line with the Web Quest approach which is an inquiry-oriented activity in which most or all of the information used by learners are drawn from the Web. EFL learners are interested in reading and discussing events that take place, and they could refer to these events online in both English and Arabic, since they have a tendency to use Google translator to be more familiar and acquainted with the information they like to include in their written tasks.

More importantly, Web Quests engage students in performing authentic simulation tasks by providing up-to-date information on a topic and by helping them develop critical reading and synthesizing skills. The web browsers also promote writing with a purpose for a real-world audience. The young are now keen on tracing and reading what is going on around the world; such as sport activities, watching videos, images, phone inventions, social news, series diseases, political affairs, how to make money, celebrations and other events via navigating the web. One way of making learning meaningful for them could be by integrating their interests in such events in their writing courses. A large shift involves providing opportunities for even more learning experiences for ESL students due to integrating technology in education.

Similarly, technology can enable teachers to accommodate a variety of orientations to learning, track students progress, remediate struggling students, and challenge advanced learners. Actually, producing a web quest does not entail any detailed technical knowledge of which teachers used to neglect. It is extremely easy to produce a web-based design using any modern word processor. The skill set for producing a web quest might require research skills, analytical skills and word processing skills. Students should be trained to find an easy access to a bulk of resources on the internet coupled with motivating topics and hot issues that will arouse their interest to collect the relevant data. More specifically, browsing the websites approach is an attempt to gear the students’ attention to browse current events via navigating relevant sites so as to serve their writing purposes. It is really
an easy and enjoyable change for teachers to try this NetGen technology for teaching purposes.

For academic and pedagogical purposes in this study, the researcher has utilized this web browsers approach on one group (group C) of students who were encouraged to navigate the websites to refer to events that are currently part of their interest. They could go back to these events that are stored on any of the free and available servers on the internet so as to collect information on topics they are eager to write about.

2. Literature Review

The following review displays the results of some recent studies related to browsing websites in teaching essay writing, in addition to some other studies related to writing approaches that have been conducted to improve EFL learners' writing skills at the university level. Writing academic essays does not only require mentality, but it also demands authenticity of content. Browsing the websites via using hypermedia applications may effectively equip learners' with authentic material that improves their performance as they are motivated to browse the internet for real information that may enrich the content of their written essay. Utilizing hypermedia applications could be via using a variety of social media tools. Kern and Warschauer (2000) state in the introduction of their Book *(Theory and practice of network-based language teaching)* the features of the World Wide Web p.12 "The World Wide Web offers an abundance of informational resources whose utility for language learning is just beginning to be tapped. Using the World Wide Web, students can search through millions of files around the world within minutes to locate and access authentic materials (e.g., newspaper and magazine articles, radio broadcasts, short videos, movie reviews, book excerpts) that correspond to their own personal interests." This claim paves the road for English language instructors to gear students' attention towards using hypertext links for improving their writing abilities.

Recently, Ahmadi and Marandi (2015) attempted to investigate the effect of using wikis on EFL learners’ writing performance. Their study showed that the two 16-member EFL students groups participants' abilities in writing have improved and outperformed that of the students in the control group. The experimental wiki group have attended classes in the language lab where they enjoyed using wikis for writing purposes.

As Iranian universities’ students must undertake some essay writing courses as a requirement for scientific research conducting, Mohammadi and Talebinejad (2015) conducted a study in which they proposed a solution to improve Iranian learners' essay writing performance and critical thinking in a wiki web 2.0 environments along with the students’ active or reflective learning style. Their study attempted to find out the impacts of language learning context and learning style on Iranian EFL students’ writing ability in a critical thinking perspective. Both researchers claimed that their work was one of the few studies on this topic, more specifically it aimed at comparing the role of language learning context and learning style of traditional writing teaching process with technology via using web based essay writing classes. The participants were 90 male and female EFL learners at the upper intermediate level of language proficiency. Confirming the benefits of using
web2.0 in writing, the research findings are helpful to improving the writing ability of Iranian English learners.

In this same caliber, integrating stretched text model to enhance writing abilities could be one of the efficient resources for collecting information for academic purposes. Stretched text is a teaching hyperlink tool that provides learners with huge volume of information for academic purposes. Jamshidipour, & Gorjian's (2015) study on proved that stretched text media applications has been fruitful in improving the experimental group of 30 students' achievement in writing. The participants in the experimental group were trained on a series of stretched texts by means of CALL facilities. The results of their study indicated that students’ writing fluency and accuracy of the experimental group improved significantly. This could be attributed to the great advances of storing information that made the digitalization and storing of graphs, audio and video easy. In other words, stretched text strategy has positive effects that enhanced the level of the Iranian EFL learners' writing knowledge.

To explore the effects of web-based pre-writing activities on college EFL students’ writing performance and their writing apprehension, Zaid (2011) conducted a study in Saudi Arabia to check whether multimedia-based concept-mapping and online reading before writing affects the quality of students’ compositions and their writing apprehension. Each student wrote three drafts under multimedia-based concept –mapping. It was revealed that students wrote richer and longer essays due to the effect of pre-writing activities, mainly on-line reading about the events that enriched their knowledge and improved their writing abilities.

Considering grammar as a main pole in developing writing abilities, Suthiwartnarueput and Wasanasomsithi (2012) illustrated that using Facebook as a medium for grammar and writing discussions of low-intermediate EFL students has significant effects on students' performance in grammar. The study focused on sentence structures, word meanings, parts of speech and relative clauses as these are the most common aspects of the topics of discussion on the Facebook. Regardless of written communication, both researchers claimed that discussions between teachers and students via Facebook enhanced the learners' grammatical knowledge, too. The findings of their study were very effective concerning the impact of grammar on improving the participants' abilities. They stated that "From the results, Facebook, as a means for language learning, effectively enhanced the writing abilities of the EFL students. The students had a higher mean score in the post-test. Facebook also built positive attitudes of students in language learning. Grammar discussions seemed to lead to the English writing improvement" , (Suthiwartnarueput & Wasanasomsithi, 2012, p. 207).

As another piece of evidence, Al-Shehri (2011) conducted a study on 33 male university students majoring in English at King Khalid University, Saudi Arabia. In the study, the students were required to upload photos or video clips, add descriptions, and post questions on Facebook. The findings showed that the students preferred to collaborate in English on Facebook when the uploaded materials from their friends were interesting and new to them. Facebook allowed them to stay connected with other networks. With such an
opportunity, they could develop the abilities to synthesize ideas and facts from various sources of information.

Furthermore, Shih (2011) investigated the effects of using a blended teaching approach on the improvement of the ESL students’ writing abilities. In the approach, Facebook and peer assessment were integrated with writing class instruction. The participants of the study were 23 first-year Taiwanese ESL students at a technological university. Before the experiment, the students were divided into three groups: low score, medium score, and high score groups; such a division was derived from the gain scores in the English subject of the 2010 National College Entrance Examination. During the experiment, the students posted their pieces of writing, assessed the quality of writing of students from other groups, and provided their peer feedback on Facebook. The findings revealed that Facebook integrated blended learning for ESL students. It was also observed that 94.4% of the participants agreed that networking websites (i.e., Facebook, Twitter, Whats App, and blogs) can easily develop their communicative skills; 88.9% used networking websites as a way to improve their writing skills, too. All of the student groups had significantly higher scores in the post-test (p < .05). They made improvements in paragraph organization, content, vocabulary, spelling, and grammar. The students cited that the convenience and popularity of Facebook facilitated peer assessment and motivated them to have more participation in their learning.

Alternatively, Chuo (2007) tried a Web Quest Writing Instruction (WQWI) program to investigate its effect on Taiwanese EFL learners’ writing performance, writing apprehension, and perception of web-resource integrated language learning. Participants were students from two junior college classes who showed positive attitudes towards the program. The findings revealed the following: Students in the WQWI class improved their writing performance significantly more than those in the traditional classroom writing class. Secondly, the WQWI class also experienced significant reduction in writing apprehension. Thirdly, students had a favorable perception of the WQWI program, recognizing more advantages than disadvantages of language learning through web resources. Fourthly, it was shown that integrating web resources into EFL writing instruction, using the Web Quest model, was effective for enhancing students’ writing performance and provided a positive learning experience.

Yang (2005) discussed the strength and weakness of three most significant methodologies of teaching writing based on the writing needs of a group of Chinese university students. He concluded that different approaches to writing are complementary rather than incompatible, that a combination of different approaches with regards to students’ specific writing needs and their developmental levels may be convenient to Chinese EFL learners. Additionally, Xu (2005) introduced three writing approaches that are currently popular in English writing teaching field: the product approach, the process approach and the genre approach. He attempted to propose an integrated approach which is not only a synthesis of the three mentioned approaches, but also draws on some experiences of traditional Chinese language teaching methods.
This brief review shows that researchers urge English teachers to concentrate on hypertext written communication and make use of the Internet in their English classes for various reasons, of which are the following: Students of this age enjoy changing; like to express their ideas using their own genre; hate being under the control of the same teacher; prefer being independent on the one end of the scale, and, multimedia tools motivate them to make English part of their daily life outside the classroom, on the other end of the scale. Hence, instructional design needs more conceptual planning to produce better and more convenient approaches to teaching writing.

3. Methods and Procedures

3.1 Population and Sample of the Study

The population of this study consisted of all EFL students in the English Language Department at Al-al-Bayt University in Jordan during the academic year 2015-2016. The population comprised of 348 students; and the sample included 108 students who registered in Writing II Course (1302211) during the first semester. The sample was assigned to 3 groups: Group A (36 students) was assigned as the control group who was taught by using the product writing approach; group B (35 students) was taught by using the process writing approach. It was assigned as an experimental group1. This group ( B) was given information on papers, printed tasks and work sheets from the internet, activities and instructions on how to write an essay in English. But they did not receive any training on the internet. Whereas group C (37 students) used the event-oriented web-based approach in the computer lab which was assigned as experimental group 2.

3.2 Variables of the Study

The independent variables of the study were:

1. Teaching method which includes:
   a. Teaching writing academic essays by browsing the internet websites for collecting information.
   b. Teaching reading and doing pre-writing activities by using papers and tasks of writing in English by using regular instruction method.

2. The dependent variable is the students' achievement in writing English essays.

3.3 The Instruments of the Study

Two instruments were used to measure the effect of browsing the websites for further information and supplement the experimental groups' written tasks. The first is a pre-post test; and the second is hypertext links. The participants were asked to write three essays in English on three different topics as a pre and post test. To achieve the purpose of the study, features of academic essays were referred to as models of good essays which included the three categories of writing administered by the researcher and a team of English language instructors who teach writing I and II at the university level.

The second tool is utilizing hyperlinks which are the primary method used to navigate
between pages and Web sites. Links can point to other web pages, web sites, graphics, files, sounds, e-mail addresses, and other locations on the same web page.

3.4 Design of the Study

The quasi-experimental design, using the pre-post test was applied in this study so as to test the effect of using hypermedia web browsers on undergraduate EFL students' achievement in writing academic essays in English compared to using other two writing approaches (The product writing approach and the process writing approach). The experiment of the study lasted for three months during the first semester of 2015/2016. The participants of the study (108 enrolled in Writing II Course at Al-al-Bayt University) were assigned to 3 groups: group A (36) used the product writing approach; group B (35) used the process writing approach; whereas group C (37) used the hypermedia web browsers approach. Every participant in the three groups wrote four essays on current topics under the required conditions of every approach. The teaching procedures were implemented by two English language instructors using three different methods: Product writing approach, process writing approach and hypermedia web browsers approach. The first instructor taught groups A (the control group) and B (experimental group 1); and the second instructor taught group C (experimental group 2) using the computer lab to browse the web sites. The independent variables of this study were the three different approaches of teaching writing essays (the product writing approach, the process writing approach and browsing web sites approach); whereas the dependent variable was students' achievement in writing essays in English.

3.5 Validity of the Instrument

The topics for writing essays were discussed by a committee of experts in the English Language Department at Al-al-Bayt University so as to verify the validity of the writing tasks on the one hand; and to agree on the primary categories of writing essays, on the other hand. Unanimously, three categories of assessing the writing essays (organization, content, style and mechanics) were considered in correcting the participants' written essays.

3.6 Reliability of the Instrument

An exploratory sample of 12 students who registered the Writing II Course at the University were chosen from outside of the sample of the study. They were asked to write essays on the three chosen topics. To assess the reliability of the written tasks, two weeks later, they were asked to write essays on the same three topics. The written essays were corrected by three instructors in the English Language Departments. The scores for the students in the pre and post tests were almost equivalent. As the scores were acceptable, correlation coefficient was calculated of the scores. It was 0.88 which could be reliable for the purpose of conducting this experiment.

3.7 Instructional Material and Hyperlink Software

The instructional material is mainly based on the Hypertext links FrontPage 2003 Lesson 13 - Hyperlinks Ed. 5/5/06 Page 1 Types of Hyperlinks. When text is used as a hyperlink, it is usually underlined and appears as a different color. There are four types of hyperlinks:
During the first week of the experiment, the three groups were asked to suggest six topics on events that are of their interest. Then they were asked to write four essays in class (2 essays per week). These topics were arranged according to what is most relevant to their concern. The three groups received training on how to write an essay. Groups A and B received training in class using two different approaches (the product writing approach for group A and the process writing approach for group B); whereas group C received training in the computer lab browsing the web sites to find relevant information on the topics and via using the event-oriented web-based approach.

During teaching group A, the instructor manipulated different strategies ranging from choosing a purpose and an audience, gathering ideas from the students themselves, arranging ideas, putting ideas down on paper, correcting errors including sentence structure, usage, spelling, punctuation, capitalization and polishing, etc. The first instructor taught group A using the product writing approach. Where she gave a model and the students were asked to imitate, copy and transform what was given in that model. Additionally, the students were asked to focus on grammar, linguistic knowledge, stressing the appropriate use of vocabulary, syntax and cohesive devices. Their writing tasks were corrected and evaluated by both instructors of the Course (Writing II) based on the essay writing rubric-HCC Learning Web, that uses a 100-point grading scale in three major categories (organization, content, style and mechanics).

Students in group B were trained on how to tackle the problem of not knowing what to write and how to write. The process approach shows students the writing process that should be embodied, which demonstrates to them the various ways to approach writing. Moreover, pre-writing activities like reading mentor texts, structured brainstorming, listing, mapping, exploring new ideas during writing, editing, considering ideas and essay
organization, modeling, scaffolding, proofreading, talking, interviewing, mapping, flowcharting, outlining, conferencing etc. can effectively help the struggling writers generate and organize ideas. Moreover, some printed activities on papers chosen by the instructor from the Internet were done. Then, they were asked to write in class the same three essays as a posttest during a week. The topics were about the World Cup event; floods and typhoons in Asia; and an event in the emergency room. Essays were corrected and marked according to the marking scale used by the instructor. Scores for both sections were recorded for analysis and discussion.

The third group (experimental group 2 of 37 students) were asked to browse the web for finding content for current events for two hours, three times a week and this lasted for 4 weeks at the computer service lab. The selected internet computer applets were interactive and can provide the students with a rich recourse of information, ideas, vocabulary and relevant authentic material. In addition, the web sites allow the students to progress at their own pace and work individually to solve the problem of difficult words by using Google translator when necessary.

The instructor was informed that those students should receive training on the Internet on activities and materials on writing essays during the lab sessions. They were provided by several sites that help them navigate the process of essay writing. Besides, it is up to the students themselves to spend more time to gain much information for enriching their background knowledge on authentic events. They were given instructions on using hypertext links to access sites for such events; from which they will choose topics to write three essays. Topics on such events may include: Describing an important social event that the learner attended or took part in such as celebrations, sport events; a visit to a hospital; Election Day; massacres in neighboring countries; floods and typhoons in some areas of the world; celebrations and events at the university: graduation day, comparing cultural events of other countries, scientific days, etc.

During the third month the three groups (A,B, and C) were asked to write one essay every ten days on the same events previously chosen, as a posttest respectively; however, students in group C were asked to highlight information elicited from the internet. Essays were corrected using the same marking scale used in the pre-test(rubric-HCC Learning Web); scores were recorded according to the three writing categories (organization, content, style and mechanics). During the correction process, the instructor noticed that the essays written by group C are enriched with authentic and correct information. The three chosen topics were: massacres in neighboring countries, graduation day, and the World Cup event. The essays were corrected and evaluated by both instructors of the Course (Writing II) based on the essay writing rubric-HCC Learning Web, that uses a 100-point grading scale in three major categories:

Table 1. Categories of the main areas of rubric correcting scale.*

<table>
<thead>
<tr>
<th>No.</th>
<th>Category</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Organization</td>
<td>20%</td>
</tr>
<tr>
<td>2.</td>
<td>Content</td>
<td>50%</td>
</tr>
</tbody>
</table>
3. Style & mechanics 30%

*Essay Writing Rubric — HCC Learning Web*learning.hccs.edu/faculty/Nicole .Antoine/essay-writing

Each category includes the main points that the instructor followed during the process of correction. More specifically, the category of organization focuses on easiness to read, clear organization of main points and well-suited to the topic. The content category concentrates on including too much information distracts from the focus of the paper and many examples that support the topic. Besides, examples should be specific and concrete. The introduction and conclusion should also be interesting and balanced. The third category includes all items of mechanics and style; proper choice of vocabulary, linking words and sentence structure, use of correct spelling, punctuation and grammar.

The scores in the three topics were below the level (the percentage was 56% out of the average 60%), although they have passed Writing I Course which is a prerequisite to Writing II Course. Each student has three scores divided into three main categories. The scores were recorded according to the three categories, and then the totals were calculated. Each paper was given a referential number for objectivity and accuracy purposes.

3.9 Statistical Analysis

The statistical package for social sciences (SPSS) was used so as check any possible differences between mean scores of the pre-post test among the three groups. Data were analyzed. Scores of the pre and post test were recorded. Then, means and standard deviations in the pre and post test were estimated.

Analysis of covariance (ANCOVA) is used here to test the main and interaction effects of categorical variables on a continuous dependent variable, controlling for the effects of selected other continuous variables.

4. Findings of the Study

As previously mentioned, the purpose of this study is to investigate the effect of using web-based event-oriented curricula on EFL university students' achievement in writing. It attempted to answer the following three questions: - Are there any statistically significant differences at (α=0.05) among the means of the EFL students' achievement on the posttest in writing English essays attributed to navigating web-sites for relevant information? - Are there any statistical significant differences at (α=0.05) among the means of EFL students' achievement on the posttest attributed to training on activities via event-oriented web-based approach? - Which category of writing (organization, content, style and mechanics) did the experimental group students, develop the most as a result of browsing the web sites?

Data were analyzed, using the statistical package for social sciences (SPSS) so as check any possible differences between mean scores of the pre-post test among the three groups. Scores were recorded as a pretest. Then means and standard deviations in the pre test were estimated. The results are as shown in table 2 below:

Table 2. Overall means and standard deviations of students' scores according to the three
Categories in the pretest

<table>
<thead>
<tr>
<th>No.</th>
<th>Category</th>
<th>Organization</th>
<th>Content</th>
<th>Style &amp; mechanics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>20%</td>
<td>50%</td>
<td>30%</td>
</tr>
<tr>
<td>1</td>
<td>Group A (n= 36)</td>
<td>Mean 1.4</td>
<td>2.4</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SD 1.7</td>
<td>7.9</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Group B (n= 35) Experimental (1)</td>
<td>Mean 1.6</td>
<td>2.4</td>
<td>4.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SD 1.5</td>
<td>2.7</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Group C (n= 37) Experimental (2)</td>
<td>Mean 1.5</td>
<td>2.4</td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SD 1.5</td>
<td>2.4</td>
<td></td>
</tr>
</tbody>
</table>

Table 2 above shows the means and the standard deviations of the total scores of the three groups in the three categories in the pre-test. The means in the second category (content) shows that the participants in the three groups have the same means (2.4, 2.4 and 2.4); besides, the means of the first category of organizing the essay are also lower than expected. The means in the third category reveals that the learners paid more attention on grammar, vocabulary choice, spelling and punctuation. A vertical look to each category indicates that the means are equivalent where category 1 (blue) shows the category of organization, series 2 (red) displays category of content and series 3 represents category of style and mechanics. This could be read in Graphic 1 below:

Graphic 1. A graphic representation of the mean scores of the three groups in the pretest

Hypothesis one says that there are no statistically significant differences at (α=0.05) among the means of scores of the participants. Results in table 2 indicates that the participants have almost little information that may enrich the content of their essays, as
the means of the three groups are the same Hypothesis two says that there are no statistical significant differences at (α=0.05) among the mean scores of EFL students' achievement on the posttest attributed to training them on activities via the process based approach; and hypothesis three reads as there is no effect of browsing the web sites on any of the writing categories (organization, content, style and mechanics) on the experimental group students' achievement in writing.

Scrutinizing the results indicates that Group B mean scores (4.2) in the post test are higher than their mean scores in the pre test (2.4) in category 2 (Content area). This result could be due to the use of prewriting activities which included reading about the topic, doing work sheets and other activities that serve the goal of writing a good English essay. This result rejects the second hypothesis of the study. Question three reads '- Which category of writing (organization, content, style and mechanics) did the experimental group students, develop the most as a result of browsing the web sites?' The findings that answer this question are shown in Graphic 2 and Table 3 below. Concerning the category of content, evidence from Graphic 2 and Table 3 below shows a descriptive data on the post test scores of the participants across the experimental conditions. The results indicate that the participants of group C were exposed to browsing the web for information as they gained the highest mean difference of 16.8, whereas groups A and B means were (2.4 and 4.2 respectively). This could be observed in Graphic 2 below which represents the means of the scores in the post test of the three groups in each series where series 1(blue) shows the category of organization, series 2 (red) displays category of content and series 3 represents category of style and mechanics. It is obvious that group C has the highest bar in series 2 (16.8) which is the content category. Hence hypothesis 3 Which says 'There is no effect of browsing the web sites on any of the writing categories (organization, content, style and mechanics) on the experimental group students' achievement in writing' is rejected.

Graphic 2. A represents the means of the scores in the post test of the three groups in each series
Table 3 below shows the means in figures which confirms that the highest mean (16.8) was gained in category 2 (content) by group C (red bar) in the post test. This could be attributed to the effect of browsing the hypertext links for gathering information relevant to the topics of the writing essays.

Table 3. Overall means and standard deviations of students' scores in the three Categories in the post-test

<table>
<thead>
<tr>
<th>No.</th>
<th>Category</th>
<th>Weight %</th>
<th>Mean/ SD</th>
<th>Organization 20%</th>
<th>Content 50%</th>
<th>Style &amp; mechanics 30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Group A (n= 36)</td>
<td></td>
<td>Mean</td>
<td>4.0</td>
<td>2.4</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SD</td>
<td>2.9</td>
<td>2.7</td>
<td>2.9</td>
</tr>
<tr>
<td>2</td>
<td>Group B (n= 35)</td>
<td></td>
<td>Mean</td>
<td>4.1</td>
<td>4.2</td>
<td>7.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SD</td>
<td>3.4</td>
<td>3.5</td>
<td>4.2</td>
</tr>
<tr>
<td>3</td>
<td>Group C (n= 37)</td>
<td></td>
<td>Mean</td>
<td>8.8</td>
<td>16.8</td>
<td>9.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SD</td>
<td>2.9</td>
<td>7.5</td>
<td>7.2</td>
</tr>
</tbody>
</table>

Table 3 shows that the mean of the students' scores in each category in the post test is higher than that in the pre-test. However, a vertical look at each category indicates that there are differences between the means of the groups due to the training they received. The highest difference is in category two (content and information) where group A total mean of scores was 4.0; group B 4.1 whereas group C mean of scores was 16.8. This could be attributed to having a rich resource of information via navigating the Web sites.

Question one reads' Are there any statistically significant differences at (α=0.05) among
the means of the EFL students’ achievement on the posttest in writing English essays attributed to navigating web-sites for relevant information? To answer this question, the researcher followed the equivalent pre/post-test of three groups design. Means and standard deviations were calculated. Table 4 below shows that the mean of students' scores in group C was 20.49 on the writing posttest who received training on navigating the internet web sites to find information relevant to the writing topics. It was higher than that of group A (14.13) and B (17.29).

Table 4. Total means and standard deviations of the students' achievement in writing on the pre / post tests

<table>
<thead>
<tr>
<th>Groups &amp; students number</th>
<th>A (36)</th>
<th>Group B (35)</th>
<th>Group C (37)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Pre-test</td>
<td>10.5</td>
<td>3.00</td>
<td>10.1</td>
</tr>
<tr>
<td>Post-test</td>
<td>14.13</td>
<td>4.88</td>
<td>17.29</td>
</tr>
</tbody>
</table>

Table 4 shows that the means of the three groups in the pre-test were almost the same (group A: 10.5, group B: 10.1 and group C: 10.6). This indicates that the three groups’ scores were equivalent before the treatment. However, it is revealed that group C students have navigated the net for relevant information and received training on using the event-oriented web-based approach have gained significantly higher mean scores than the other two groups who received teaching and activity training on papers. According to the figures in table 4, it was found that students' scores in group C outperformed those of students' scores in groups A and B in almost the three categories (organization, content and style and mechanics). Therefore, hypotheses one and three were rejected. Group B mean scores in the post test was higher than that of group A and lower than that of group C. This shows that pre-writing activities in the classroom have slight effect on group B improvements in writing. Therefore hypothesis two was rejected.

Analysis of covariance (ANCOVA) is used here to test the main and interaction effects of categorical variables on a continuous dependent variable, controlling for the effects of selected other continuous variables. The ANCOVA results presented in Table 5 below shows that for the F–value obtained was 228.87 as P-value < 0.05, given 1 and 73 degrees of freedom at the .05 level of significance. This therefore suggests that training on browsing the web hypertext links was efficient in improving the participants' performance in writing. Therefore hypothesis 1 was rejected.

Table 5. Two-way analysis of variance (ANCOVA) of the students' achievement in the three groups: A, B and C. on writing post-test

<table>
<thead>
<tr>
<th>Group</th>
<th>Sum of squares</th>
<th>Df</th>
<th>Mean square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>42.10</td>
<td>1</td>
<td>42.10</td>
<td>0.74</td>
<td>0.39</td>
</tr>
<tr>
<td>Group</td>
<td>13067.43</td>
<td>1</td>
<td>13067.43</td>
<td>228.87</td>
<td>0.00*</td>
</tr>
<tr>
<td>Error</td>
<td>4168.05</td>
<td>73</td>
<td>57.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected total</td>
<td>17277.58</td>
<td>75</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.05; df=1 & 73.
Table 5 shows that there is a statistically significant difference at $\alpha=0.05$ between the students' achievement of the three groups on the posttest in favor of group C. This difference indicates that browsing the web for relevant information to support teaching writing may have a positive effect on university EFL learners' achievement in writing essays on relevant topics.

5. Discussion

Analysis of the results of this study is discussed in the light of the review of related literature. As previously mentioned, the primary aim of this study was to investigate the effect of using hypermedia web browsers including hypertext links on EFL university students' achievement in writing academic essays in English. The findings proved that learners who navigate the web purposefully get knowledge relevant to what is sought. It can be assured that EFL learners could refer to the net to collect necessary information, ideas and examples to improve their writing tasks. These findings are in harmony with Kern and Warschauer's (2000) who claim that students can search through millions of files around the world within minutes to locate and access authentic materials (e.g. newspaper and magazine articles, radio broadcasts, short videos, movie reviews, book excerpts) that correspond to their own personal and academic interests. The findings also confirmed the urgent need of integrating technology into the language learning classrooms; where some students watch videos and translate the texts they find by using Google translator so as to get more information about the events they trace on the net. Undoubtedly, this approach affirms that learners are independent; they use the learner-centered approach and they use authentic material.

In addition, the outcomes of this study are relatively similar to Chuo's (2007) findings who tried a Web Quest Writing Instruction (WQWI) program to investigate its effect on Taiwanese EFL learners’ writing performance, writing apprehension, and perception of web-resource integrated language learning. It was revealed that integrating web resources into EFL writing instruction, using the Web Quest model, was effective for enhancing students’ writing performance and provided a positive learning experience. Furthermore, the finding of this study findings are congruent Zaid's (2011) findings that confirmed the positive effects of using multimedia-based concept-mapping and online reading on students’ compositions and their writing apprehension.

Al-Shehri (2011) confirmed that using Facebook allowed university students to stay connected with networks. With such an opportunity, they could develop their abilities to synthesize ideas and facts from various sources of information. Shih's (2011) findings on using a blended teaching approach via the Facebook assured the improvement of the ESL students’ writing abilities. As all of the student groups had significantly higher scores in the post-test ($p<.05$). They made improvements in paragraph organization, content, vocabulary, spelling, and grammar. This matches with the result of question three.

6. Conclusion

Undoubtedly, it is agreed that this digital age is completely engrossed in navigating the web sites using smart tools. Hence, the focus of this study was an attempt to gear those
users' attention towards overcoming the difficulties in writing essays in English. The results indicated that students are willing to browse the net especially, if they are oriented to do so for academic purposes and mainly to upgrade their level of learning English as a foreign language. It could be concluded that learners who use the net are now free from paying attention to grammar and spelling mistakes as they use the correctors. On the contrary, browsing the hyperlinks via multimedia could improve all users' language communicative oral and written skills. As they are aware of finding more information and ideas about their own concern which should implicitly improve their language skills. Besides, learners who perform more activities on the net can be more familiar with the writing.

7. Recommendations

It is recommended that using hypermedia web browsers including hypertext links could be easily applied in the EFL writing courses; where students could at least read about events relevant to their own interest. With respect to all who work in teaching English as a foreign language, researchers and instructors parents' views should be taken into consideration. Parents are recommended to be patient and eager to keep up with this digital generation's needs. It is granted that this generation is ultimately using the web sites for all purposes; hence, it is highly recommended to encourage learners to navigate the Internet for academic purposes. Likewise, it seems that collecting information via the web sites for writing essays is efficient for written communication.

This study may be useful for all university EFL students who have serious problems with writing in English. This web site browsing approach may encourage teachers to change their conventional methods of teaching into an innovative fruitful approach, which is browsing the web site via using hypertext links.

Other studies could be conducted to take benefits from integrating every new technological invention and innovation to improve all language communicative written and oral skills.

References


Brandl, K. (2002). Integrating Internet-based reading materials into the foreign language


Autobiography

Awatif M. Abu Al-Sha'r is an associate professor of EFL. A female, has been teaching English as a foreign language at Al-albayt University as a full time since 1996. She was the Dean of the Faculty of Educational sciences from 2009-2014. In addition to teaching English at the English Language Department and the Department of Curricula and Instruction, she was appointed in various position in the University. She teaches BA, MA and courses at the University and at Amman Arab University. She has been a supervisor of PhD and MA students at different universities.

She has studies in TEFL, Literature and Translation.

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