

# Blended Learning Approach: Integrating Reading and Writing Research Skills to Improve Academic Writing

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## Abstract

The present study aimed at improving Arab Open University (AOU) students' academic writing through integrating some identified reading and writing research skills. This was achieved by applying a blended course which employed Web-Quests (WQs) that integrated the two skills to improve students' academic writing. The study adopted one group design with pre-test and post-test treatments. It answered the questions it raised and undertook the following: *Computer Skill Analysis Questionnaire (CSAQ)* identified the targeted students' background of some technological skills, *Reading Research Skills Inventory (RRSI)* listed the reading research sub-skills that need to be developed for the AOU students, *Writing Research Skills Inventory (WRSI)* listed the writing research sub-skills that need to be developed for these students, *Pre/Post Test (PPT)* assessed the target students' performance in the identified reading and writing research skills before and after receiving the treatment, *Blended Course employing WQs* integrated the identified reading and writing research skills to improve academic writing, and the three rubrics helped both the instructor and the students to assess their performance, identify and adjust their weakness, and *Blended Course Assessment Questionnaire (BCAQ)* identified the students' assessment, satisfaction and reflection on learning English Language in a blended environment using WQs. Upon testing the hypotheses, results indicated that there were statistically significant differences at a level of 0.001 between the mean scores of the experimental group on the pre/post administrations of the pre-post-test in favour of the post test. In addition, statistical analysis indicated that there was a significant improvement in the students' academic writing skills due to integrating the stages of the reading and writing process which helped the students to approach academic writing systematically. Consequently, the

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proposed blended course proved to be effective in developing the AOU students' identified skills and it was recommended to adopt the blended course to improve their academic writing skills.

**Keywords:** *Web-Quests, Writing research skills, Reading research skills, Blended learning*

## **Introduction**

Developing productive skills, especially in academic writing, has become a dire need for most undergraduate learners to pursue their academic career successfully. Within the current daily environment, which has become more computerized than ever before, it is clear that we need to think of this environment not only as a tool to perform tasks, but also as a tool to help increase its users' learning skills. Since the constructivist approach is dominant and learning by doing is perceived as a key element for most programs in higher education, the potential of reaping the benefits of enriching academic writing skills through integrating some reading and writing research skills in English in computerized environments has become a necessity. This can be done through blended courses guided by facilitators. The opportunity for instructors/facilitators to influence learner-centred environments is something that should be considered.

In this prospect, electronic learning or, shortly said, e-learning, represents a wide area of knowledge acquisition in the educational process by means of modern information and telecommunication technologies. E-learning has a great role in solving some specific problems, closely related to adult education. Seeing that in these days, which are full of rapid changes, time plays an important role. Unfortunately, the lack of this phenomenon touches everyone and thus many problems of adult education are directly related to it. In this case, e-learning can be applied as a very useful and powerful tool for increasing

knowledge, skills, and qualifications of individuals. However, it will probably never substitute for classical forms of education; at least in some specific areas demanding personal contact between students and instructors (Govindasamy, 2002; Hassan, 2005; Reynard, 2003; Tesone, Alexakis & Platt, 2003).

## **Background**

Education in the 21st century challenges learners to develop different learning skills and abilities to keep pace with this age of intense information revolution. This requires developing learners' certain academic skills that may influence the improvement of their learning processes to become independent learners. The labour market, as an important domain that needs to be considered in the teaching/learning process, demands that learners' knowledge and skill levels be constantly updated. In today's labour market, learners are increasingly facing new challenges such as high competition in a global market, shrinking corporate resources, rapid shifts in technology, and the recruitment and retention of talented, skilful and trained workers. Thus, a growing number of universities are developing a new learning culture to equip their graduates with the necessary skills based on labour market demands.

Swail (2002, p. 16) states that "the rules are changing and there is an increased pressure on institutions of higher education to evolve, adapt, and desist." Newman, Couturier and Scurry (2004) confirm that the transformation of teaching and learning in higher education is inevitable with the use of Web-based communications technology. Therefore, learning better and faster than others represents one of the most important competitive advantages that many learners seek to attain. Nowadays, Internet technology

represents an exceptional opportunity for learners to add value to their potentials and skills. E-learning combines education, information, communication, training, and knowledge management. It represents an applicable and cost-effective way of learning. It can be delivered on a global basis by tailoring content to suit the needs of the individuals. It also allows individuals to assess their skills gaps regularly.

The term electronic learning has been widely used, especially in higher education. Similarly, blended learning is the most recent catchphrase in higher education. International trends in open/distance learning state that the use of blended learning is essential for any open/distance education institution that aspires to survive in an increasingly competitive market. Online education has been characterized as a disruptive technology that will likely transform how, what, when, and where learning occurs in the knowledge age (Barone & Luker, 2000; Govindasamy, 2002; Reynard, 2007). Furthermore, it can be characterized as a disruptive technology in education which has the potential to radically change how education is delivered and perceived. Thus, implementing online education within traditional universities presents a unique set of challenges. Foremost among these challenges is the interface between current institutional practice (based on decades of traditional education) and future institutional practice (based on convergent models developed for the knowledge-age learner) (Tesone, et al, 2003).

Garrison & Vaughan (2008) clarify that blended learning in higher education clearly demonstrates how the blended learning approach possesses the traditional values of face-to-face teaching and integrates the best practices of online learning. This approach has proven to both enhance and expand the effectiveness and the efficiency of teaching/learning

in higher education across disciplines. They state that “blended learning opens the possibility of creating and sustaining a community of inquiry beyond classroom” (Garrison & Vaughan 2008, p. 8).

Blended learning means a combination of online and face-to-face tutoring. As Graham (2005) maintains, this can mean using the best of the best online learning to enable classroom activities to be active and engaging learning experiences. The aim is to encourage learners to be active participants in their learning processes rather than passive recipients by using online technologies to enable or support learning activities that continue outside the lecture hall, classroom or lab (extra-curricular) and encourage them to arrive in class well prepared.

Laird illustrates, “In contrast to face-to-face learning environments, e-courses are characterized by learner to instructor distance, spatial distance, temporal distance and relational distance” (Laird, 2003, p. 17). Consequently, learning opportunities in the online environment should emphasize deep processing of information, multi-modal learning elements, problem-solving experiences, and learning through personal experimentation and exploration. In addition, teaching in such an environment should be repetitive, hierarchically organized, and constructive in nature, built upon prior learning (Laird, 2003, p. 22; Reynard, 2007).

Consequently, if technological advances are used promptly and tutors are less restricted by the need to provide learners with access to knowledge, their skills in pedagogy can be directed towards higher level thinking abilities, and developing a climate of positive, enthusiastic learning contexts in which rigorous intellectual work can flourish (Arnold &

Ryan, 2003). This, in turn, will enhance learners' self-image as effective active learners, and from such confidence, the ability to be self-directed autonomous learners can be developed. Generally, e-learning courses consist of multimedia presentations, simulations, combinations of animations, video and audio sequences, text commentaries and last but not least, learners' knowledge checking tests. In this respect, blended courses were developed to provide feedback whether face-to-face or online between student and instructor/facilitator, to administer, organize and evaluate the learning process. In addition, blended courses provide many online study features such as presentations, discussion boards, video conferences, sharing of applications, and virtual classrooms.

### **Definitions of Blended Learning**

Blended learning is the combination of multiple approaches to pedagogy or teaching as in blending virtual and physical resources. It refers to the use of a variety of technologies, pedagogies, contexts and delivery modes to create a strategic mix that will increase student success. It is also known as a combination of technology-based materials and traditional print materials.

Garrison and Vaughan (2008, p. 5) define blended learning as "the thoughtful fusion of face-to-face and online learning experiences" emphasizing the need for reflection on traditional approaches and for reshaping learning and teaching in this new environment . They promote a blended faculty Community of Inquiry which combines face-to-face workshops, where personal relationships can be established, with a sustainable online community for critical reflection and discussion of practice through forums and chat rooms.

Littlejohn and Pegler (2006) recommend a different approach, which they term “blended e-learning.” This is a unique approach that centres on a learning design by considering the design issues of introducing e-learning and the process of blending rather than by simply considering the face-to-face and online environments. The term blended e-learning is evident in Stacey and Gerbic’s study (2007) where they document the use of different blends of technology and pedagogy in both campus-based and distance programmes. The introduction of new learning technologies such as podcasting, Internet-based audio and video communication, e-portfolios, and social networking tools including blogs, twitter, Facebook and wikis create new blending potentials indeed.

Heinze (2008, p. 14) considers this term in his definition by stating that “blended e-learning refers to the learning which takes place through a combination of face-to-face facilitated learning, e-learning and self-study.” He asserts that this fine structure of the blended e-learning concept comprises learning and learning context through incorporating “three nodes associated with learning: face-to-face facilitated learning, e-facilitated learning and self-study; and three nodes associated with the learning context: learner, pedagogic beliefs and the programme related issues” (Heinze, 2008, p. 16).

The term blended learning can also be used to describe merging conventional offline, non-electronic based instruction with online tutoring or mentoring services. Although this combination of e-tutoring and conventional learning seems to be a perfect example of blended learning, it is the opposite to most current blended learning settings; in that, the learning happens by conventional learning techniques, not by the electronic techniques (Tesone et al. 2003).

One of the most important benefits of blended learning is in the area of learner accessibility. According to Govindasamy (2002), the ability to use the web in the classroom has the potential to serve any learner, at any time, in any place. Likewise, a blended course using WQs could possibly maximize the accessibility concerns for the learners who cannot meet in the traditional classroom, in addition to offering a wide range of information required for their research.

In addition to accessibility issues, blended learning is featured by containing collected and organized digital content materials that may diminish the use of physical textbooks in the classroom. Thus, electronic content and resources can substitute for the information found in textbooks, or the electronic copies of textbooks can be downloaded onto computers and laptops, which may diminish the high cost of purchasing textbooks and/or the physical and problematic concerns of learners carrying heavy textbooks. The delivery of textbook information in an electronic format seems ideal for blended learning classrooms. According to many researchers, allowing teachers to use digital media instead of prescribed textbooks can generate all kinds of creativity and empowering tools of instruction (Dodge, 1995; Schrock, 2002; Stacey & Gerbic, 2007; Tesone et al. 2003; Vaughan, 2007).

Moreover, blended learning courses are considered an easy way for instructors to begin to incorporate the Internet into the language classroom, on both a short-term and long-term basis since no special technical knowledge is needed either to produce or use it (just Internet basics). They help instructors provide courses through computers and the Internet. As a result, both the instructors and the learners can work at any time and in any

place. These courses facilitate instructors' work on assignments by turning them in by e-mail any time of day or night which adds the excitement of immediacy and the dynamics of global interaction (Govindasamy, 2002; Graham, 2005; Masie, 2005). Web-based instruction in such courses really increases learning for people who are shy, lack interpersonal skills or are uncomfortable in large groups.

In addition, blended courses help learners gain a better understanding of the use of the computer as a communicative as well as a learning tool. They usually contain group activities; as a result, learners tend to be autonomous learners and to communicate and share knowledge with others. They also include both motivating and authentic tasks that encourage learners to view the activities they are doing as something "real" or "useful" (Garrison & Vaughan, 2008). This certainly leads to more effort, greater concentration and a real interest in task achievement.

Finally, blended courses, coupled with real-life material and input, can be a greater motivator than outdated course books and other teaching materials. They can be interdisciplinary/cross-curricular, allowing for cross-over into other departments and subject areas, where applicable (Govindasamy, 2002). This can often give them a more real-world look and feel, and provide greater motivation for the learner. Blended courses also encourage critical/higher level thinking skills including: comparing, classifying, inducing, deducing, analyzing errors, constructing support, abstraction, and analyzing perspectives. Learners are not able to simply restate information they find, but are guided towards a transformation of that information in order to achieve a given task (Garrison & Kanuka,

2004). In fact, these courses help learners look at and assess their work and the work of others from different perspectives.

### **Developing Blended Courses**

Wilcox & Wojnar (2000) clarify that integrating computer and reading literacy to increase learning and improve teaching can be achieved by employing six components that should be included in designing a blended course. These six components are: “integrative units” which integrate all aspects of knowledge acquisition, “small group activities” that actively involve all learners, “presenting to learn” which supports the approach of learning something through demonstrating it, “classroom workshop” that employ the approach of learning by doing, “authentic experiences” which are based on real-life situations not designed for pedagogical practices, and “reflective assessment” that involves formative assessment tools to improve learners’ achievement level and performance. They also add that transferring part of the content to an online environment requires technological expertise, and facilitating growth in a learner's knowledge requires mindfulness. They state that the three most basic considerations when developing a blended course are content knowledge, pedagogical skill, and higher-order thinking (Wilcox & Wojnar, 2000).

Blended courses refer to “an instructional design that is learner-centred which requires students to meet for face-to-face classes while providing much of the course content and interaction online via course delivery software and instructional tools” (Reynard, 2007). Thus, effective blended course instructional design blends traditional, face-to-face classroom and online methodology that usually takes place using the Internet (e.g., Web Quests, e-portfolios and PowerPoint presentations). The blended course is generally

based on learner-centred instruction, effective and timely instructor's intervention and feedback, peer to peer/group interaction, and multiple input sources in a highly interactive learning context. The blended model depends on full students and instructor's participation and on an instructional design that intentionally supports both specific learning outcomes and flexible delivery (Dudenev, 2001; Laird, 2003; Sharp, 2005).

The cultural diversity of the current learners' population and their technology-rich experiences present further issues for blended learning design. Complexity is clearly evident in the extent to which ICT has been incorporated or embedded within courses. Some writers such as Vaughan (2007) argue that basic supplementation of a face-to-face course with online learning is not blended learning whereas others like Littlejohn and Pegler (2006: 29) prefer to talk about "strong" and "weak" blends to indicate "a range across significant to very small amounts of e-learning."

Blended courses can be incorporated through many activities. The form of activity in blended courses changes according to the case of each course. One of these activities is Web-Quests (WQs) which are among the most fascinating applications on the Web for many educators all over the world. WQs blend part of the instruction online with that presented inside the classroom. Bernie Dodge of San Diego State University was one of the first people who attempted to define and structure this kind of learning activity. According to him, a WQ is "an inquiry-oriented activity in which some or all of the information that learners interact with comes from resources on the internet," (Dodge, 1995). This definition has been refined over the years, and adapted for various different disciplines. Philip Benz describes a WQ as follows: "A Web-Quest is a constructivist approach to learning ... in

which students not only collate and organize information they have found on the web, they orient their activities towards a specific goal they have been given, often associated with one or more roles modelled on adult professions.” (Benz 2001).

WQs are designed to use learners' time efficiently, to focus on using information rather than looking for it, and to support learners' critical thinking at the levels of analysis, synthesis and evaluation. Most WQs include the links that are appropriate for learners to research as well as suggestions for further research. They are generally constructed around a scenario of students' interest where they have to participate in the elaboration of their learning strategies. Thus, the level of autonomy and creative production they attain might be increased. With proper guidance and timely intervention, students can accomplish far more actual learning than in traditional transmission of knowledge situations where they feel bored wishing to be anywhere but in the classroom. (Benz 2001; Schrock, 2002; Tesone, et al. 2003).

Conventionally, WQs have an introduction, a process, a set of tasks, a list of resources, a conclusion, and an evaluation. The introduction orients the learners as to what is coming and raises their interest through a variety of means, whereas the process clearly describes steps which they need to go through to accomplish the task. It also provides some pieces of learning advice. As for the tasks, they give a description of what the learners will accomplish at the end of the exercise that could be a product or a verbal presentation. Then, a list of information resources is presented; it is a list of Web pages, links and resources on the Web which the instructor has located to help the learners accomplish the task. After that, there is the conclusion which brings the learners to the closure of the quest by

reminding them of what they have learned and encouraging them to extend the gained experience into other domains. Finally, the learners can assess and evaluate their learning performances through different types of rubrics presented at the end of the WQ (Benz, 2001; Dodge, 1995; Schrock, 2002; Tesone, et al. 2003)

It is worth mentioning at this point that there are two types of Web-Quests; short term and long term WQ. A short term WQ is designed to be completed in one to three class periods. Its instructional goal is knowledge acquisition and integration. The learner in such WQ deals with a significant amount of new information and makes sense of it. The other type, which is implemented in the current study, is a long term WQ; it is designed to take between one week and one month. Its instructional goal is extending and refining knowledge. The learner analyses a body of knowledge, transforms it, and demonstrates understanding by presenting it. To design a WQ, teachers identify topics that fit in with the curriculum, obtain available materials online, familiarise themselves with resources online in their content area, and organize the resources into categories such as databases, reference material, and so forth (Benz, 2001; Dodge, 1995; Schrock, 2002; Sharp, 2005; Tesone, et al. 2003).

For the purpose of this study, integrating some reading and writing research skills using a blended course employing WQs would enable AOU students to improve their academic writing skills needed for their academic careers. The learners would be able to gather relevant data, critically analyse this data, and reflect/build on their prior knowledge and experiences to come up with new innovative ideas and/or solutions for a chosen topic of interest.

The present study sought to improve academic writing skills through a blended course employing Web-Quests (WQs) by integrating some reading and writing research skills in English for Arab Open University (AOU) students.

### **The Study**

This study was limited to specific subjects, place, skills, and duration. The subjects were 31 students registered in Academic Writing course at the Faculty of Language Studies, AOU. The skills were reading and writing research skills in English needed for the target students to improve their academic writing skills (*Pilot Study*, below). The duration of the blended course was 15 weeks of the second semester of the academic year 2014/2015.

Data were collected from AOU students registered in the Academic Writing course, Faculty of Language Studies, to investigate if there was actually a need for integrating reading and writing skills to develop their academic writing skills. The aim was to identify their performance in reading and writing research papers then apply a blended course using WQs to measure their performance level improvement, if any, from the following resources:

#### **Computer Skill Analysis Questionnaire (CSAQ)**

A computer skills analysis questionnaire was designed and used to identify the target students' background on some technological skills. It was conducted on 31 students registered in the Requirement Program, AOU. After analysing the data statistically using SPSS item analysis, it was found that the target students have a very good skill level (92%) in using computers in particular in some of its programs such as Word and PowerPoint in addition to navigating the Internet using different search engines.

Table 1  
*Statistical analysis of students' responses to CSAQ*

No. of Questions	No. of Students	Students Responses%			Total Percentage
		Always	To some extent	Never	
21	31	89%	8%	3%	92%

Furthermore, most of the students showed great interest in using the Internet. They stated that they communicate via Internet through chatting and sending e-mails to one another. They also expressed that they actually navigate the Internet using different search engines such as Google and Yahoo to collect data and seek any piece of information they wish to learn about. They also reported that they usually visit some educational sites to collect data and gain more information such as the AOU e-library.

### **Pilot Study**

The pilot study was conducted by administering a reading and writing research skills test on 31 students registered in Requirement Program, AOU, during the second semester of the academic year 2014/2015. It was carried out to check the students' performance level in reading for researching and writing an academic essay. The students were asked to answer some wh-questions, mark true or false, draw a comparison, give synonyms and antonyms, identify referent pronouns and write a reflection essay on what they read. This test was corrected by the researcher according to the pre-set criteria for Reading Research Skills (RRS) and Writing Research Skills (WRS). It was marked out of fifty points. The students' scores are presented as follows:

Table 2

*Students' results in reading and writing research skills pilot test*

	N	Minimum	Maximum	Mean	Std. Error	Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
Test results	31	2.00	30.00	11.4722	1.24816	7.48899	56.085
Valid N (leastwise)	31						

Table 2 shows the target students' grades in the pilot test out of fifty points in two sections (19 items for reading and 17 items for writing). Both the reading and the writing sections consist of three sub-sections which represent the three stages of the reading research process; pre-reading, during reading, and post-reading and the writing process; pre-writing, during writing and post-writing.

The first reading sub-section 'Pre-Reading Research Stage' consists of three items. The first item handles how to clarify the output of reading a certain text by asking some pre-questions that would be answered by reading the text extensively. The second item presents how to get the main idea of a text and find information from title, headings and sub-headings, topic sentences, and conclusions through skimming/surveying a text. The third item shows the importance of drawing a mind map considering previous knowledge about the given text. The second reading sub-section 'During Reading Research Stage' consists of thirteen items. This stage involves intensive reading and scanning skills that would facilitate understanding any given text and obtaining specific details. During this stage, the students would be able to deduce conceptual meaning, build vocabulary, and recognise syntactic and morphological relationship through grammatical cohesion and

discourse markers located in the introduction, development, transition and conclusion of ideas. In addition, they would understand inferred ideas and communicative functions of different sentences (definitions and exemplifications). They would also be able to locate and comment on explicitly stated ideas by taking notes on the text. The third reading sub-section "Post Reading Research Stage" consists of three items covering the way of transferring information or knowledge from one context to another e.g., from non-linear to linear, drawing connection between main ideas in the form of a mind map, and reflecting on the information mentioned in the text through writing a summary.

Similarly, the first writing sub-section 'Pre-Writing Stage' consisted of six items to analyse a topic. The items handle how to write an influential reflective essay by stating its objectives and identifying its target audience using proper expository context, logical scope and sequence, and detailed outline within a specific framework. The second writing sub-section 'During Writing Stage' consists of three main items divided into several sub-items to write the content of the essay. This stage presents what should be included in the introductory paragraph, body paragraphs, and concluding paragraph of the essay. During this stage, the students would be able to write their first draft. They would start by naming the topic of the essay explicitly in the thesis statement and its controlling ideas, providing a brief background and key assumptions with sufficient discussion and details, and finally confirming final viewpoints/opinions explicitly in simple, plain language. The third writing sub-section "Post Writing Stage" consists of eight items covering the techniques of maintaining effective writing style through editing and revising the essay. The items cover the steps that need to be taken to revise the essay by checking accuracy and clarity, keeping

logical order and maintaining smooth flow of the presented ideas/events, sustaining the readers' attention and interest, and keeping formal professional tone throughout the essay.

The students' mean is (11.47) with standard error (1.2) and variance (56.08) in reading for researching and writing a reflection essay which indicates their poor performance level.

### ***The Researcher's Experience***

As general course coordinator for the two courses (EL117: Academic Writing and EL118: Reading Comprehension), the researcher felt the need for and the possibility of implementing a blended course using web-quests which integrate reading and writing research skills to check their effect on developing AOU students' academic writing skills. This is with the use of a Learning Management system (LMS). In addition, the nature of most of the courses delivered at AOU expect the students to integrate reading and writing skills to be able to write Tutor Marked Assignments (TMAs). Therefore, the researcher believed that implementing a blended face-to-face and online course which integrates these two skills would improve the students' academic writing and may be the key to diminish the disadvantages of fully implementing an online distance course. It would be beneficial to combine these two approaches to learning for the following reasons (Abdel-Wahab, 2008):

1. Need for more extensive education than is possible to obtain during the two-hour lecture per week plus one office hour.
2. Need for faster and superior information acquisition.
3. Necessity of increasing the amount of information necessary to familiarize the learners with their content area.

4. Necessity of preparing the learners to participate in the language learning process, not acting as passive recipients.
5. Necessity of considering individual learning styles and timetables.
6. Necessity of exploring new forms of communication among learners as well as between learners and their instructor.
7. Need for providing unlimited repetition of previously learned subject matter by learners themselves.
8. Need for easy updating of already existing learning materials according to the learners' feedback.
9. Need for accurate and selective evaluation of the language learning process.

### **Statement of the Problem**

Based on the literature, the computer skill analysis questionnaire (CSAQ), the results of the pilot study, and the researcher's observations, the problem of the study is stated as follows.

There was a need for developing and improving academic writing skills by integrating some identified reading and writing research skills in English for Arab Open University (AOU) students to serve their academic life through a blended course employing Web-Quests (WQs).

The present study answered the following main question:

To what extent is a blended course employing WQs effective in developing AOU students' academic writing by integrating reading and writing research skills in English?

This main question led to the following sub-questions:

1. What are the required reading research skills in English for AOU students?
2. What are the required writing research skills in English for AOU students?
3. To what extent do these students master the identified reading and writing research skills?
4. What is the basis of the suggested blended course employing WQs for developing academic writing by integrating the identified reading and writing research skills in English?
5. To what extent will the suggested blended course employing WQs be effective in developing academic writing by integrating the identified reading and writing research skills in English?

### **Hypotheses of the Study**

The study tested the following hypotheses:

There is a statistically significant difference in the students' mean scores on the pre-post research reading comprehension test in favour of the post-test as a result of the application of the blended course employing WQs.

There is a statistically significant difference in the students' mean scores on the pre-post writing a reflection essay test in favour of the post-test as a result of the application of the blended course employing WQs.

### **Purpose of the Study**

The present study aims at identifying the required reading and writing research skills for AOU students. It also assesses the target students' performance level in the identified reading and writing research skills and how to integrate them to develop academic writing.

Moreover, it presents the proposed blended course employing WQs that would develop academic writing skills by integrating the identified reading and writing research skills in English for the target students. Finally, it investigates the effect of the blended course employing WQs on developing academic writing through such integration.

### **Significance of the Study**

It is hoped that the present study will contribute to presenting a way of planning, designing and implementing blended courses that integrate reading and writing research skills for language instructors and curriculum designers. It is also hoped that it will help them incorporate WQs effectively in teaching and learning. In addition, the present study adds to the literature concerning the effect of blended courses employing WQ activities in enhancing academic writing through integrating reading and writing research skills. Most importantly, the study aspires to help students in different universities develop some of their academic writing by integrating reading and writing research skills through blended courses employing WQs. Finally, this study paves the way for other studies to enhance and improve students' performance in academic writing.

### **Method**

#### **Design**

This study adopted a descriptive design to review and survey previous literature and studies related to the variables of this research study. In addition, it adopted a quasi-experimental/empirical design to identify the effect of the suggested blended course employing WQs in enhancing AOU students' reading and writing research skills in English. The following principles of best practice learning were implemented: learner-centred,

experiential, holistic, authentic, expressive, reflective, social, collaborative, democratic, cognitive, developmental, and constructive learning.

An Internet-based communication platform was also implemented to allow interaction between the students and between the students and their instructor. At the end of each session, the students received varied assignments in the form of open questions, true or false, for and against essay questions and/or oral presentations that suited their multiple intelligences. They were given the choice to do the assignment in groups, in pairs or individually according to their preferred learning styles. In addition, a pre-post comparison of the students' scores in the pre-post achievement test was carried out. Furthermore, a statistical analysis of the students' assessment and reflection on learning through a blended English language course was conducted.

### **Variables**

The study had two main variables: an independent variable represented in the proposed blended course employing WQs and a dependent variable represented in the identified reading and writing research skills to improve academic writing skills.

### **Participants**

The participants in the present study were 31 students registered in the Academic Writing course taught at AOU. The blended course employing WQ was implemented by the present author/researcher during the course sessions to develop the students' academic writing by integrating reading and writing research skills.

### **Instruments**

The following instruments were developed by the researcher and validated by the jurors:

1. Computer Skill Analysis Questionnaire (CSAQ) to identify the targeted students' background concerning some technological skills.
2. Reading Research Skills Inventory (RRSI) to list the reading research skills that need to be developed for the AOU students.
3. Writing Research Skills Inventory (WRSI) to list the writing research skills that need to be developed for the AOU students.
4. Pre/Post Test (PPT) to measure the development and/or improvement of students' academic writing skills by integrating the identified reading and writing research skills, if any.
5. Blended Course employing WQs (its aims, objectives, content, methods, media, activities, and evaluation using 3 rubrics) to integrate the identified reading and writing research skills.
6. Blended Course Assessment Questionnaire (BCAQ) to identify the students' assessment, satisfaction, and reflection on learning the English Language in a blended course using WQs.

### **Procedure**

The procedures for implementing this study had a theoretical and a practical framework. The theoretical framework was represented in reviewing and surveying previous literature to specify the required reading and writing research skills needed for the AOU students. Then, the researcher identified some reading and writing research skills that need to be integrated to develop AOU students' academic writing and designed WQs for integrating

the identified reading and writing research skills to develop AOU students' academic writing.

As for the practical framework, the researcher answered the first and the second questions by developing a preliminary list to identify some reading and writing research skills required for the AOU students. Then, the preliminary list was presented to a group of jurors for validation. Later, it was modified based on the jurors' responses and suggestions to prepare the final version of the list for implementation.

To answer the third question, the researcher constructed a test (pre-test) to measure the students' current performance level in some reading and writing research skills before the implementation of the proposed blended course employing WQs to improve their academic writing skills. Next, the test was presented to a group of jurors for validation. After that, the test was piloted before its administration to make sure that it is reliable. Finally, the data were statistically analysed using *t*-test to identify the reading and writing research skills that have been already developed to be eliminated from the preliminary lists of some needed reading and writing research skills.

To answer the fourth question, the researcher designed the blended course employing WQs (its aims, objectives, content, methods, media, activities, and evaluation using 3 rubrics) to integrate the identified reading and writing research skills. Then, the proposed blended course was presented to a group of jurors for validation after modifying it according to their responses and suggestions. Finally, the final version of the proposed blended course employing WQs was developed for implementation.

To answer the fifth question, the researcher implemented the proposed blended course employing WQ on the AOU students. At the end of the semester, the researcher administered the achievement test (post-test), the same form of the pre-test, to measure the students' performance in relation to integrating the identified reading and writing research skills to develop their academic writing skills. Finally, the data were statistically analysed using *t*-test to measure the students' improvement, reach conclusions and provide recommendations.

## Results

To investigate the change that took place following the implementation of the blended course employing WQs on the target students' performance in the reading and writing research skills test and to compare their pre-post level of skill performance developed by the proposed blended course (research reading and writing research papers), a *t*-test for paired sample was used to determine any statistical differences between the students' mean scores on the pre-post diagnostic test. These findings are presented in Table 3.

Table 3

*Descriptive statistics of the pre/post-test comparing the students' performance in the reading and writing research skills test*

*Paired Samples Statistics*

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Post-test	18.7083	31	9.70185	1.40034
	Pre-test	5.9583	31	3.91374	.56490

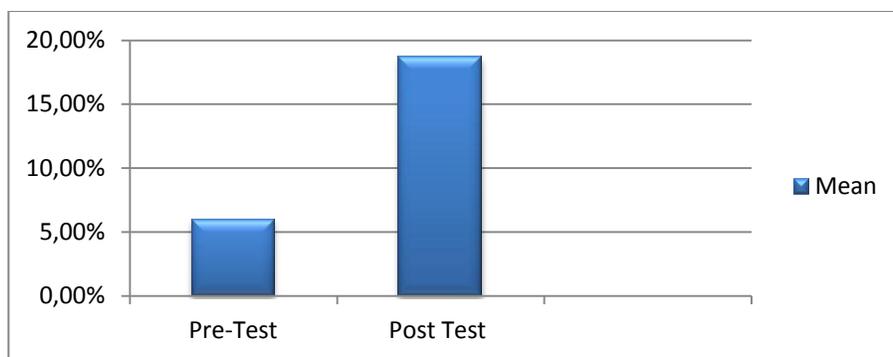


Figure 1. Comparison of pre/post-test mean scores of the students in the reading and writing research skills test

The statistical results presented in Table 3 show that the mean scores of the students on the post-test (18.7) is higher than their mean scores on the pre-test (5.9). This result indicates that the students' reading and writing research skills have improved due to the implementation of the proposed blended course employing WQs.

The students were able to clarify the output of the given reading passage by answering the questions that proved their improved level of reading comprehension such as identifying the main idea of the given passage and finding information from title, headings and sub-headings, topic sentences, and conclusions through skimming/surveying, drawing a mind map considering previous knowledge about the given passage, deducing/infering conceptual meaning, building vocabulary, recognising syntactic and morphological relations through grammatical cohesion and discourse markers located in the introduction, development, transition and conclusion of the given passage and finally reflecting on the information mentioned in the passage through writing a summary and a reflection essay on what they have read.

A *t*-test was conducted to test the significance of the differences between the mean scores of the experimental group on the pre-post test. The results are shown in Table 4.

Table 4

Results of *t*-test on the pre/post test comparing the students' performance in the reading and writing research skills test

Paired Samples Test

		Paired Differences					
		Mean	Std. Deviation	Std. Error	<i>t</i>	df	Sig. (2-tailed)
Pair	Pre-Post test	12.75000	6.27219	.90531	14.084	30	.001

The findings in Table 4 indicate that there is a statistically significant difference at 0.001 between the mean scores of the experimental group on the pre-post administration of the reading and writing research skills test in favour of the post one. This would seem to indicate that the proposed blended course was effective in developing and improving the identified reading and writing research skills.

### Interpretation of the Results

In light of the statistical analysis presented above, it can be concluded that the proposed blended course had a large effect on developing and improving the target students' academic writing by integrating reading and writing research skills. Large effect size values were obtained through comparing the experimental group students' mean scores in the pre-and post-administration of the reading and writing research skills test. Therefore, the students' tangible progress in academic writing can be mainly attributed to the proposed blended course employing WQs which integrated the identified reading and writing research skills.

The students demonstrated a distinguished level of performance in the acquired reading research skills. They applied the three stages of active research reading strategy

(pre- during -post). They raised some pre-questions that would clarify the output of reading a certain text. Then, they skimmed/surveyed the text to identify its main idea and drew mind maps based on the gained and previous knowledge to draw connections between main ideas.

After that, the students read the text intensively and looked at how it is organised. They also scanned the text to obtain specific details and deduced the meaning of lexical/semantic items through word formation and contextual clues. This helped them in building vocabulary through context and recognizing syntactic and morphological relationships at the sentence level. Thus, they could identify relationships between parts of a given text through grammatical cohesion and discourse markers in the introduction, development, transition, and conclusion, and distinguishing main ideas (high level) from supporting details (low level). Furthermore, they could understand communicative functions of sentences such as definition and exemplification and conceptual meaning in the text such as implied/inferred statement, example, fact, opinion, persuasion, argument, and so on.

Finally, the students took notes by eliciting key concepts, extracting relevant points, and reducing text by discarding redundant or irrelevant items. They actually succeeded in transferring information or knowledge from one context to another and from non-linear to linear. The tangible product of their performance was their reflection on the information mentioned in the text through writing a summary presenting their own opinions, comments, suggestions, and recommendations.

The participants demonstrated a notable level of performance in the acquired writing research skills. They could identify each research paper's objectives, audience, and purposes to adopt an appropriate academic formal style of writing a reflection essay of what they read. They could plan and organize their writing in expository contexts specifying the scope and formulating the most logical sequence of the discussed topic and the controlling ideas. Almost all the students developed detailed outlines for presenting their essay using effective aids in organization, such as brainstorming, clustering, concept maps, issue trees, and/or graphic organizers.

Some of the students could sustain the readers' attention and interest throughout their essays by providing accommodating comments, creative ideas, valuable recommendations, and practical solutions. Most of them kept a formal tone all through their writing, which suits the nature of academic essays.

After finishing writing their essays, the students started editing and checking the accuracy and clarity of every sentence by editing for content, format, organization, vocabulary, grammar, and mechanics. They proofread their work, keeping relevant ideas that clearly supported the purpose of the paper and deleting irrelevant ideas to achieve unity throughout. Most of them tried to maintain the scope and sequence of the ideas using transition to achieve coherence.

### **Implications of the Study**

The implementation of the study encountered some challenges and problems that can be summarized as follows. The first challenge was the low proficiency level of a number of the targeted students whose English background and learning capabilities could not help them

practise the identified reading and writing research skills effectively. The second challenge was the unsatisfactory essays by some students who reported that they could not find enough time to search for relevant data due to time constraints and assignments of other courses, especially near the end of the implementation which might indicate that some of their reading and writing research skills were not completely developed. Third, some students showed unwillingness to present their work orally due to shyness or little competency. This is in addition to the reluctance of a few students to work in groups or accept peer and group editing. Finally, erratic attendance on the part of some students, and resistance of a few others to use the university facilities that support self-learning such as computer labs, CDs, library/e-library, forums, and e-mail communication offered through the Learning Management System (LMS) affected their performance, as reflected in the quality of their assignment.

However, the implementation had some strengths represented in the adequate inclusion of experiential learning in the blended course e.g., WQs activities, hands-on activities, research papers, and oral presentations. This is in addition to sufficient exposure of students to authentic contexts where they can practice the learned language skills. Implementation of a variety of assessment methods which were not restricted to certain types of skills (reading, comprehension, writing, grammar and structure) made students practice what was not assessed (listening and speaking). Moreover, the adoption of methodical procedures for assessing the reliability and validity of the study instruments used throughout the implementation and satisfactory application of different methods of student assessment such as inter-rater reliability, group marking and double marking were

an added value to the study. The ability of the researcher to methodically adapt hardcopy materials to technological phases in forms of PowerPoint presentations, WQs, word files, tables and charts and her frequent commentary and feedback on any submitted assignment on the LMS to provide formative and summative assessment were considered as success factors. Besides, the satisfactory utilization of technological and online facilities for learning purposes on the part of the students and the researcher, adequate infrastructure for delivering the course materials during face-to-face sessions and online interaction via the Learning Management System (LMS), and the adoption of the blended learning approach based on both face-to-face (25%) and online (75%) interaction were major purposes of this study. Furthermore, the study was considered as an application of quality assurance processes that focus on achievement of learning outcomes which are practiced at all course levels including student and staff feedback.

### **Suggestions for Further Research**

In light of the foregoing interpretation of the results, the following can be considered for future research. The study measured the effect of a blended course; it investigated the development of AOU students' academic writing by integrating reading and writing research skills. Thus, research could use blended courses to develop other skills such as creative writing, selective reading, purposeful listening and oriented speaking. In addition, research could examine using WQs to develop other English language skills such as creative writing, selective reading, purposeful listening and oriented speaking skills. Finally, the identified reading and writing research sub-skills of this study need to be developed for other students in different universities.

## Conclusion

This study was established on both pedagogical and practical grounds to investigate the effect of a proposed blended course employing WQs on developing academic writing skills by integrating reading and writing research skills for Arab Open University (AOU) students. It was found that integrating two of the four language skills practised throughout the blended course was beneficial. That can be attributed to the use of varied written and oral activities in class and online: some activities required students to read and/or write whereas others required them to listen and/or speak to give oral presentations.

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