



# RETRACTED: The Impact of WebQuest-Based Sheltered Instruction on Improving Academic Writing Skills, Soft Skills, and Minimizing Writing Anxiety

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WebQuest is an inquiry-oriented learning tool in which the majority of the information learners interact with, comes from internet resources, according to Bernie Dodge, who conceived and named the concept (Dodge, 1997). Students are given a job and instructed to do it using Web resources. The current study explores the impact of learning in a sheltered Internet environment, "WebQuest," on improving the academic writing skills of English for Academic Purposes (EAP) non-native English speakers. It also investigates the impact of using sheltered online instruction on improving the soft skills of EAP language learners. In addition, the study assesses the impact of sheltered online instruction on reducing the writing anxiety levels of writers in the International English Language Testing System (IELTS; Writing Task 1 and 2). To reach such end, three groups of EAP learners were selected to participate in the study adopting three learning styles: sheltered online instruction (the experimental group, 15 ESP university students), unsheltered online instruction (free Google search) (the first control group, 19 students), and sheltered offline instruction (the second control group, 20 students). Instruments used included a sample of the IELTS writing test, Brookings Soft Skills Rating Card, and Second Language Writing Anxiety Inventory (SLWAI). Sequential exploratory mixed method was used as it consists of both quantitative and qualitative data analyses for the elaborate explanation of results. Successive rounds of data analyses showed the plentiful gains of the EAP students in their academic writing skills and the level of their soft skills. It is also revealed that EAP students are not as anxious and reluctant to write as before. In addition, the analysis of the students' responses to the semi-structured interview revealed that learning in sheltered Internet environments represents an interesting as well as motivating learning experience. Therefore, it is necessary for WebQuest to be implemented as a sheltered online instruction strategy in language learning and to design sheltered Internet environments other than WebQuest to improve the quality of the teaching process.

**Keywords:** sheltered online instruction, WebQuests, unsheltered online instruction, sheltered offline instruction, academic writing skills, soft skills, English writing anxiety, high-stakes test

## INTRODUCTION

Sheltered instruction is a means of making grade-level content more accessible to English Language Learners (ELLs) while also helping them improve their language skills. Since the 1970s, sheltered instruction, which better meets the needs of high school students, has been viewed as the most significant instructional innovation (Faltis, 1993). Sheltered instruction first debuted as a scaffolding teaching strategy in the early 1980s, and various models based on it have since been developed and employed in learning and instruction. The Cognitive Academic Language Learning Approach (CALLA) (Chamot and O'Malley, 1986), Specially Designed Academic Instruction in English (SDAIE) (Peregoy and Boyle, 2008), the Sheltered Instruction Observation Protocol (SIOP) Model (Short and Echevarria, 1999), and Guided Language Acquisition and Design (Short and Echevarria, 1999) are all examples of these approaches (GLAD; Brechtel, 2001).

A sheltered instruction model was established in the mid-1990s. This model showed instructors how to employ good methods systematically, as well as provide them with a tool for reflection and improvement. It's known as the Sheltered Instruction Observation Protocol (SOIP) and it's been widely employed since it effectively improves ELL teachers' instructional techniques (Echevarria et al., 2000, 2004). Sheltered instruction methods aid non-native language learners with a particular focus on academically underperforming or unskilled students. These methods have some similarities, such as focusing on both subject and language objectives, making content intelligible for learners, and employing alternative assessments to accurately establish what students know about a content area independent of their English proficiency level (Markos and Himmel, 2016).

Sheltered instruction is an integral part of almost all teaching programs designed for ELLs (Harper and de Jong, 2004; Williams et al., 2007; Saunders and Goldenberg, 2010; Markos and Himmel, 2016). It provides language learners with a wide range of opportunities to achieve high academic levels and promote proficiency in language use (Wright, 2010; Fritzen, 2011). Using sheltered instruction supports goal achievement especially when it is partnered with enhanced L1 competencies. Also, it provides L2 learners with comprehensible input and rich-in-language content-based instruction in the target language. It not only targets academic performance in language learning, but it also opens the horizons for learners to develop general academic competencies such as study skills, learner strategies, and critical thinking skills (Echevarria et al., 2012; Markos and Himmel, 2016). Students' language proficiency levels increase as a direct result of participating in sheltered instruction-based programs, hence, it is considered as a scaffolding process aimed to give students timed support (Echevarria and Graves, 2007; Wright, 2010).

Sheltered instruction-based teaching practices help learners to participate in all content areas with no native-language instruction, especially for students at the beginning levels of English proficiency. On the contrary, high-level language learners tend to focus on content before target language use. Hence, endeavors to implement sheltered instruction depend on the availability of bilingual instructors and teaching resources.

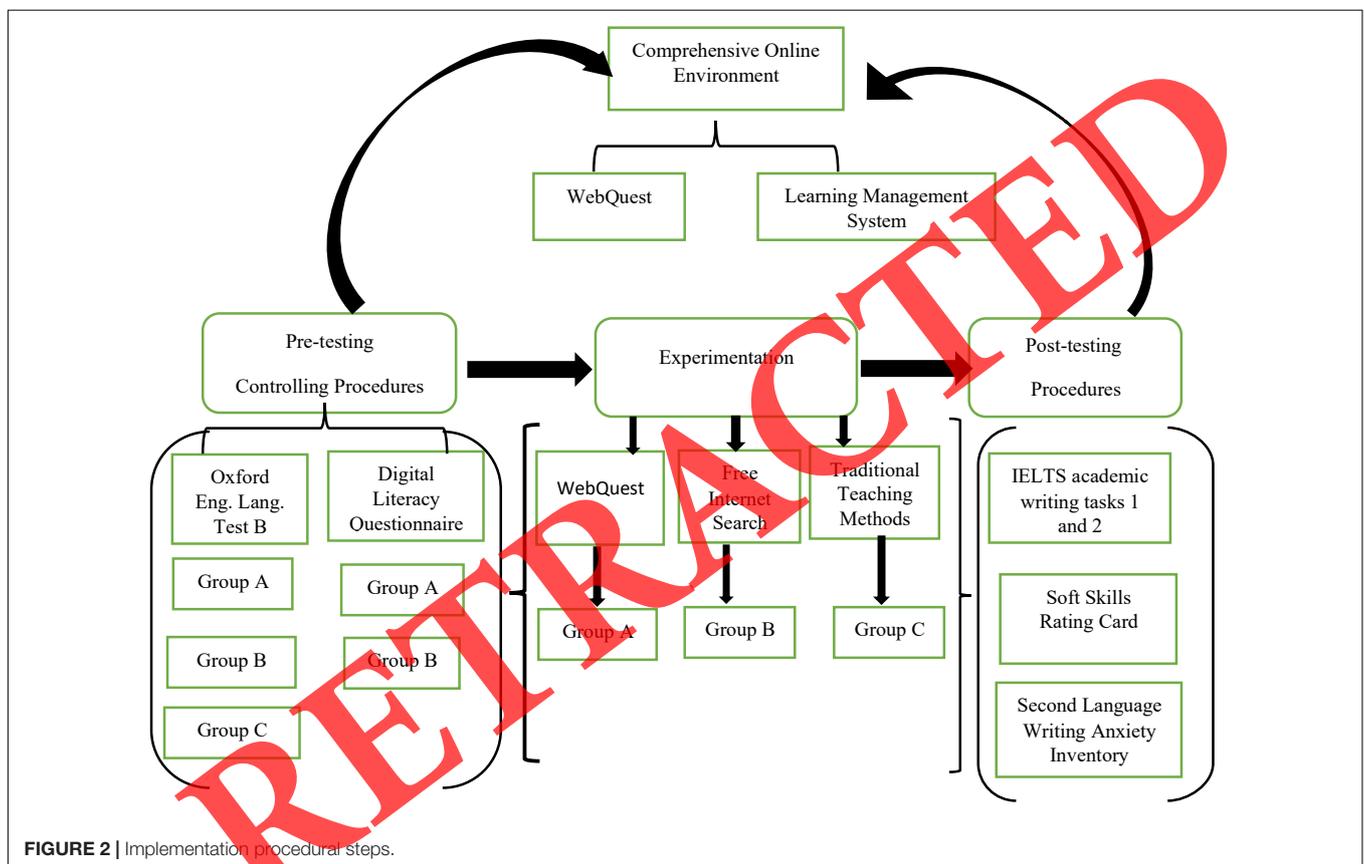
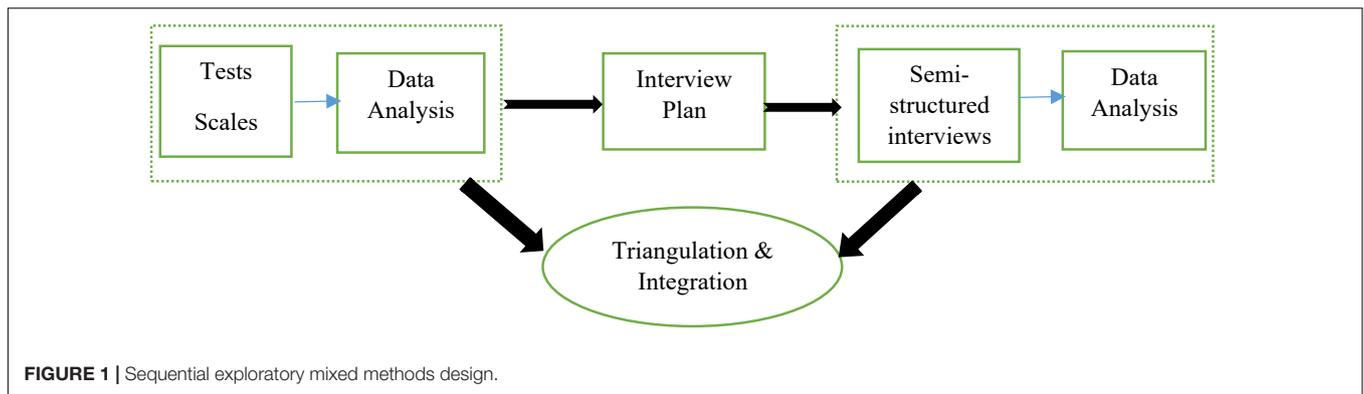
Teachers who adopt sheltered instruction in their teaching should have extensive pre-service and in-service training on target language practices. Even non-native teachers of the target language should do their best to support students of varying language proficiency levels.

According to Hansen-Thomas (2008), sheltered instruction uses a communicative strategy to teach language and subject. When addressing content concepts, this method emphasizes the use of language functions such as negotiating, explaining, describing, and defining. As a result, sheltered instruction includes the following features: (a) use of cooperative learning activities with the appropriately designed heterogeneous grouping of students; (b) a focus on academic language as well as key content vocabulary; (c) judicious use of ELLs' first language as a tool to provide comprehensibility; (d) use of hands-on activities with authentic materials, demonstrations, and sheltered instruction might be regarded "simply good teaching," (Echevarria and Graves, 2007). As a result, until the student is ready for mainstream classrooms, sheltered instruction functions as support (Macias et al., 2013).

Other characteristics of sheltered instruction include the organization of the topic material such that it ties to previous lessons, and ELLs require a linkage between current learning and previous lessons to crystallize the connection between courses. Furthermore, it is usual for sheltered education teachers to use a variety of delivery techniques, with the lecture mode being the least successful method of teaching kids learning English (Tharp and Gallimore, 1988).

The emergence of technology-integrated teaching practices added much value to the merits of the sheltered instruction approach. It offers the possibilities of facilitating learning (Verhoeven et al., 2006; Segers and Verhoven, 2009). Information and Communications Technology is an integral part of the 21st century that announces the emergence of new literacies, most importantly informational literacy (Leu and Kinzer, 2000). ICT has become pervasive in modern societies as a tool for transforming education systems and supporting economic development. Thus, 21st century signaled to focus on acquiring multi-literacies when learning a language rather than focusing on only linguistic literacy (Grabill and Hicks, 2005; Ainley et al., 2016). ICT integration into school teaching includes a partnership between literacy instruction and network technologies. It associates general reading/writing instruction with subject matter content learning that seems inevitable. As such, sufficient instruction is necessary to keep learners attentive and task-focused, especially in complex learning situations (Segers and Verhoven, 2009).

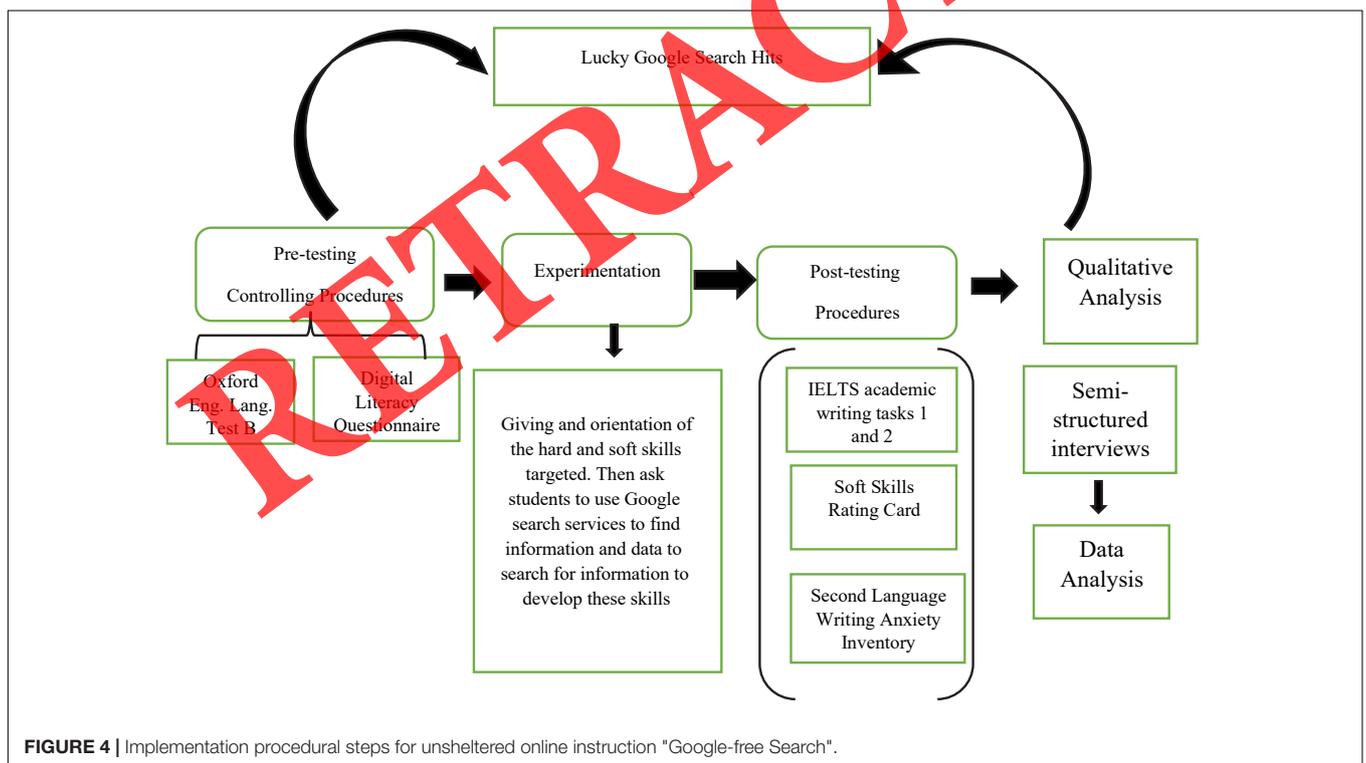
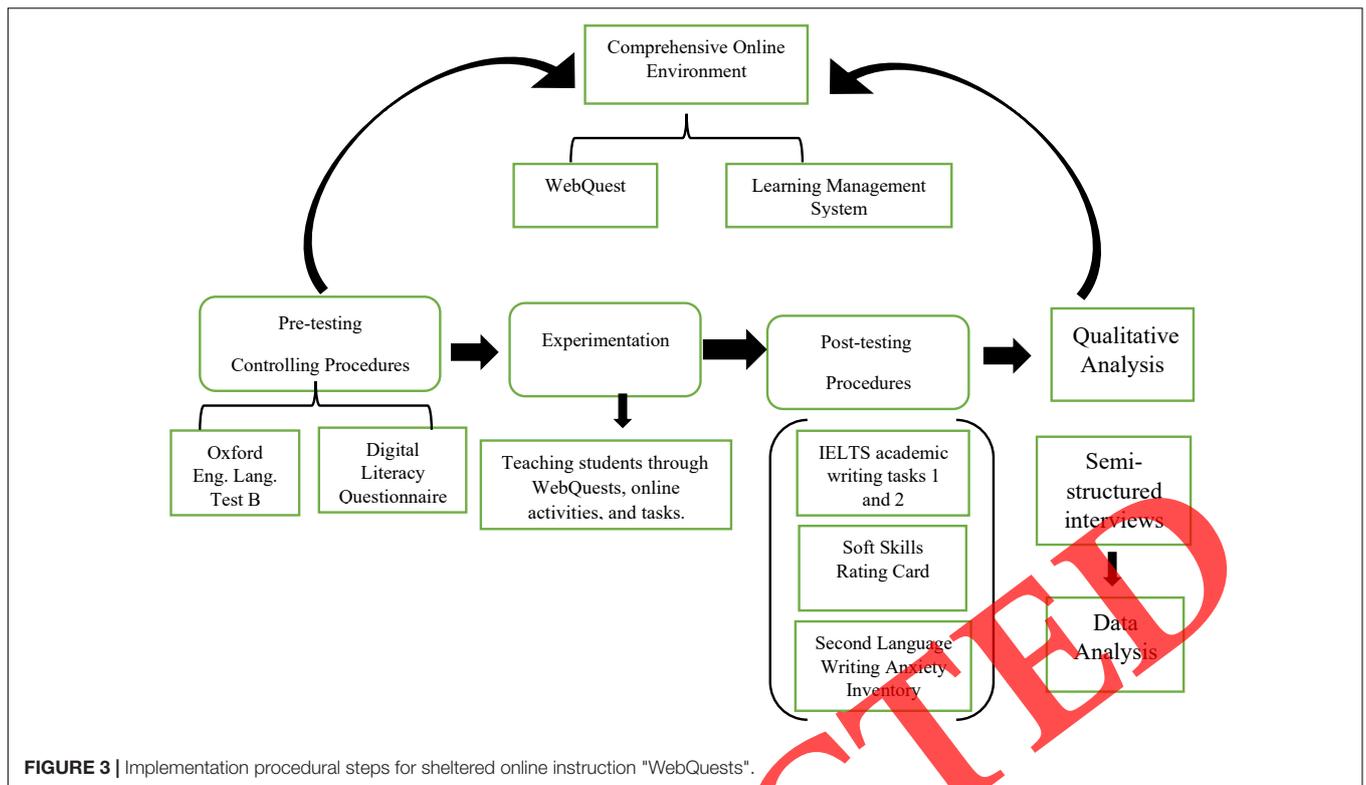
Accordingly, WebQuest includes ICT integration with sheltered instruction principles that helps learners to develop writing skills, especially in high-stakes tests. As an online sheltered instructional tool, WebQuest supports cooperation among writers who write collaboratively regardless of the time and location boundaries. Students can easily give necessary feedback and get help from their colleagues and their teacher. Besides, learning through WebQuests secures students' and teachers' interactions, these interactions give way to save more time for in-class and out-of-class time for students to work



hard to enhance hard skills, namely, academic writing skills. In addition, student to student (S/S) and student to teacher (S/T) interactions support some soft skills, most importantly the communication skills, and support students' self-confidence to eradicate anxiety.

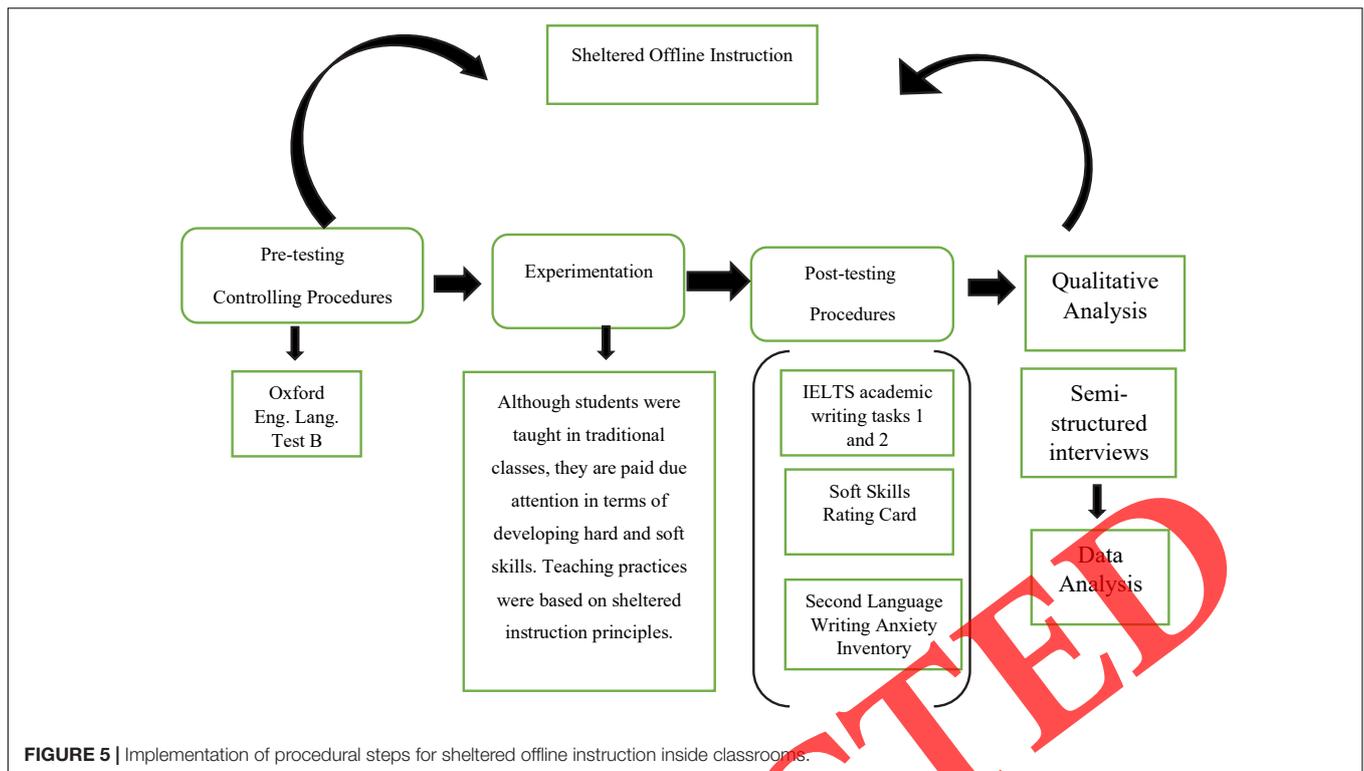
Traditionally, educational research has been concerned with examining negative emotions in the instructional context, such as anxiety (Marcos-Llinás and Garau, 2009) and burnout (Vaezi and Fallah, 2011). Dissatisfied with the constant focus on negative emotions, researchers, motivated by the positive psychology movement, realized that not everything is negative and they set out to investigate and promote eudemonic well-being (Jin et al., 2021; Proietti Ergün and Dewaele, 2021). The roots

of positive psychology in second language (L2) teaching were strengthened by a special issue on positive psychology guest-edited by MacIntyre and Mercer (2014), as well as Sarah Mercer's pioneering conference on the Psychology of Language Learning at the University of Graz in 2014. In this regard, the rise of foreign language enjoyment (Dewaele and MacIntyre, 2014) prepared the path for positive psychology (PP) to be used in second language acquisition (SLA), and other positive aspects were later examined in this area of research. Anxiety in SLA was one of the aspects that received much interest. In the empirical investigations that followed, factors like happiness, emotional intelligence, love, and pride were explored alongside negative ones like foreign language classroom fear and a bad learning environment to discover the



potential of positive emotions in achieving a balance (Chaffee et al., 2014; Dewaele and MacIntyre, 2014; Gregersen et al., 2014; Wang et al., 2021).

Despite WebQuest's potential to improve academic writing, dialogic engagement, and thinking abilities, a few research in Egypt (except for Salem, 2019) have looked into its use



for critical-thinking development, particularly in the setting of university academic language instruction. To fill this knowledge gap, the author developed and implemented a WebQuest-based Sheltered Instruction teaching program for university students to improve their academic writing skills and cultivate their soft skills, and then evaluated its efficacy by collecting both the quantitative and qualitative evidence of students' subsequent academic writing, soft skills, and impact on writing anxiety.

The study is a first-of-its-kind attempt to build a WebQuest-based sheltered instruction teaching package for use in Egyptian university English classes. It adds to the WebQuest and critical-thinking works of literature by giving actual evidence of WebQuest's usefulness in improving academic writing and promoting soft skills in a Middle Eastern culture. The study also suggests a design framework for creating a technology-enhanced learning environment that promotes university students' academic writing and soft skills. The WebQuest-based sheltered instruction teaching method that was developed and evaluated in this study has significant pedagogical implications for university English professors who want to use WebQuest in their classes.

## LITERATURE REVIEW

### The Origins and Components of WebQuest

WebQuest is an inquiry-oriented activity that allows students to use the Internet to acquire new knowledge and expand their understanding. It refers to virtual journeys, where they

are guided online to search for information. It includes a purposeful search for information necessary to fill certain gaps to consolidate understanding (Dodge, 1995, 1997). Bernie Dodge and his colleagues in San Diego University, notably David March, designed such a web-based learning model in 1995 as a response to the overuse of ICT in educational settings. According to Dodge (1997), a typical WebQuest consists of a series of web pages that provide a certain structure for the learning process.

Successful WebQuests have certain key components: an introduction, a task, sources, a process, evaluation, and a conclusion (Dodge, 1995, 1997; March 1998; Teclehaimanot and Lamb, 2004; Ikpeze and Boyd, 2007; Zlatkovska, 2010). A WebQuest usually starts with a brief orientation or introduction. An introduction sheds the light on background knowledge on the topics under discussion, whereas, WebQuest ends in an evaluation in which learners conclude the topic.

The second component of WebQuest is to describe the tasks and activities involved. To do the described tasks, learners have to consult certain resources. Thus, in the third phase, a list of online resources is provided, which are links to websites related to the topic to help learners to perform the tasks. The description of processes that learners should follow in their pursuit to perform the prescribed tasks is provided in the fourth phase of WebQuest. The process description is done through several web pages as they include an explanation of single steps and questions as a guide to support and even scaffold learners to achieve their goals. The penultimate phase of WebQuest is the summative evaluation, which assesses the students' understanding and provides feedback whenever necessary. The WebQuest ends in a conclusion

that summarizes the WebQuest educational outcomes as an interesting learning experience.

WebQuests are not a new instructional model; they are strongly founded in cognitive science (Dodge, 1997). This model's theoretical basis can be traced back to Marzano's Dimensional Learning Theory (1992). Based on the dimensional learning theory of Marzano (1992), the learning process involves dynamic interaction between five dimensions of thinking; these dimensions are (1) development of positive attitudes and perceptions about learning; (2) acquisition and integration of knowledge; (3) extension and refinement of knowledge; (4) meaningful use of knowledge; and (5) development of productive strategies (Segers and Verhoven, 2009). Marzano (1992) bases his assumptions on Bloom's Taxonomy of Learning Objectives, which outlined six stages of cognitive processes, widely seen as objectives by scholars and practitioners, and includes knowledge, understanding, and application. Acquisition, understanding, application, analysis, synthesis, and evaluation are all steps in the learning process. Higher-order thinking skills (HOTS) are the last three levels, and they are expected to increase as a result of the WebQuest implementation (Marzano and Kendall, 2007).

## The Importance of WebQuest

WebQuest, assists students in gathering information from online resources and following a set of stages leading to the completion of a final project on a specific subject or a multi-disciplinary subject (Dodge, 1995, 1997, 1998, 2006). A WebQuest entails an active search of the internet for the knowledge needed to complete the tasks; it can be thought of as dialectic constructivism in which constructivism and instructivism coexist (Segers and Verhoven, 2009; Mvududu and Thiel-Burgess, 2012).

WebQuests allow students to take an active role in the learning process (Chalmers, 2003); it provides the learner with a reasonable degree of autonomy. Learners in their online quest for information are supposed to be responsible for their learning. The teacher acts as a guide to keep them walking on the right track. In sheltered online environments (SOE) like WebQuests, learners design materials guided by their teachers based on the basics of the content, hence, they feel ownership of their learning. Learners participate actively, cooperatively, and collaboratively to achieve their goals. Unlike the teacher-centered approach, the student-centered approach includes learners searching for information rather than receiving it passively. It develops social skills and the critical thinking of active learners. Therefore, well-designed WebQuests adhere to the principles of the Cognitive Load Theory (Sweller and Chandler, 1991); it targets high germane load through maximizing the suitable online sources and keeping irrelevant sources minimal.

It is worth noting that the WebQuest model involves exerting much effort to obtain information. It does not include a casual search for information. A WebQuest provides learners the opportunity to search for information in a group of unorganized hits, but it also needs learners to refine these searches to support their HOTS, namely, the levels of analysis, synthesis, and evaluation (Dodge, 1998, 2001). Understanding knowledge and applying them in daily life situations help create positive attitudes toward learning and enhance learners' environments or

future experiences (Abbitt and Ophus, 2008). As a task-based and content-based oriented model, WebQuest allows performing research-based activities (Torres, 2007); it also enables students to practice, improving their high thinking ability (Lahaie, 2008). Additionally, it is effective for developing problem-solving skills, high-level thinking skills, and creativity, which leads to an increase in the learners' motivation to learn (Barros and Carvalho, 2007; Lim and Hernández, 2007; Aydin, 2016).

Ebadi and Rahimi (2018), for example, proved the impact of WebQuest-based classrooms on English as a foreign language (EFL) learners' critical thinking and academic writing skills in one of the few recent studies on the use of SOE, particularly WebQuest, on developing academic skills and specifically, academic writing skills. Ebadi et al. (2017) found that both the WebQuest-based flipped classroom and the non-flipped classroom improved learners' critical thinking and academic writing skills in a previous quantitative study. Hadriana (2017) also demonstrated the impact of WebQuest on the development of writing skills. It has been discovered that using WebQuest assists teachers in creatively motivating kids to learn. Al-Sayed et al. (2016) found that WebQuest is beneficial in fostering writing skills and recommended that the WebQuest model should be implemented into writing training programs in another study.

In addition, Ali (2014) found that using WebQuests helped first-year experimental high school students build some EFL critical reading, process writing abilities, and decrease writing apprehension. Awada and Ghaith (2014) also discovered the impact of WebQuests on enhancing EFL writing proficiency and lowering writing apprehension in Lebanon's eighth-grade intermediate students. In addition, Rabi'ah Husin et al. (2015) examined study findings on the impact of WebQuest on the development of students' soft skills. The study of Myers et al. (2014) found that employing ICT online learning environments based on traditional active learning approaches to enhance students' interpersonal soft skills is a good teaching strategy for developing soft skills. Ing et al. (2012) investigated the efficacy and scope of a free-form, web-based bulletin board called Stixy as a learning platform for improving soft skills through collaborative knowledge building.

Moreover, the studies which were conducted help us understand the effect of developed academic writing skills and improved thinking skills on reducing the writing anxiety of EAP students. In this context, Orozco and Martin (2011) revealed the effectiveness of the implementation of WebQuest for learning English in a fifth primary school grader's level of communicative competence in English. In another study, Chu (2004) showed the positive impacts of using WebQuest writing instructions on improving students' performance in writing and reducing their writing apprehension.

As such, WebQuest is a scaffolded, web-based, constructivist, student-centered, and SOE, which has been shown to be effective in developing the writing skills of language learners at various schooling levels. It has also been shown that WebQuest implementation supports learners' mastery of soft skills, especially communication skills, due to the interactions among students and their teachers serving two main goals: to

develop communication skills and to increase self-confidence to more anxious writers. According to Royhana et al. (2021), WebQuest is a tool to assist teachers in their classrooms using technology to make the teaching process more fascinating and unique in their classes. In this situation, students have the option of automatically exposing the content to improve their writing and language skills.

Traditional teaching practices need to be improved to involve active learning strategies. Active learning strategies coincide with online learning environments newly emerged in the 21st century. Therefore, web-based learning environments represent effective online platforms that meet the learners' needs (Hamzah et al., 2017). Web-based learning (WBL hereafter) strategies reduce the shortcomings of traditional teaching methods, it supports a more flexible and efficient collaborative learning environment. WBL environments rely on inquiry-based tasks, it scaffolds unprivileged learners to cope with the learning process, especially in distance learning (Zaiane, 2001).

An online learning environment helps develop thinking skills in general, with special regard to HOTS. As such, WebQuest, once implemented in teaching students, supports HOTS (Polly and Ausband, 2009), critical thinking skills (Kimberly and Maddux, 2002; Ikpeze and Boyd, 2007; Ebadi et al., 2017; Ebadi and Rahimi, 2018), creative skills (Al-Sayed et al., 2016), and soft skills (Britton, 2013; Rabi'ah Husin et al., 2015).

## Soft Skills

Soft skill is defined differently by different researchers and in different circumstances. The concept of soft skills can be better understood by contrasting it with hard skills/technical skills. As a result, hard skills are defined as technical procedures or hands-on operations that are simple to teach, measure, monitor, and quantify. Soft skills, on the other hand, are concerned with a person's characteristics, which are classified into three categories: personal characteristics, interpersonal skills, and problem-solving/decision-making abilities. Soft skills are therefore important for students and later employers, but they are difficult to teach (McCale, 2008; Rabi'ah Husin et al., 2015).

According to Robles (2012), soft skills are defined as "intangible, non-technical, personality-specific abilities that determine the strengths of a leader, facilitator, mediator, and negotiator" (p. 457). Because soft skills not only predict but create life success, intervention programs that improve them have a strong public policy agenda (Heckman and Kautz, 2012, p. 451). Soft skills are defined as "a dynamic blend of cognitive and metacognitive skills, interpersonal, intellectual, and practical skills" (Haselberger et al., 2012, p. 67).

Because the ability to express one's ideas to others is at the heart of soft skills, communication skills are at the heart of soft skills. Many non-English majors, particularly those who use English as a second language, lack basic communication skills. The capacity to use the language in terms of speaking and writing in the standard language is referred to as language competency.

Soft skills differ from social skills as the latter is a part of the soft skills. Social skills include the ability to learn, analyze, manage time, and innovate. Hence, these aspects go beyond the set of

skills that allow interaction with others (Guerra-Baez, 2019). Soft skills also include life skills which are made up of three categories:

- 1) Interpersonal skills: skills for assertive communication, negotiation, trust, cooperation, and empathy,
- 2) Cognitive skills: problem-solving, decision-making, critical thinking, self-evaluation, analysis and understanding of consequences, and
- 3) Emotional control: emotional recognition and management in situations of stress and intense feelings, such as anger, sadness, and frustration (Mangrulkar et al., 2001).

## Importance of Soft Skills

Therefore, a person may not be technically competent, but being competent in communication skills would be a privilege, which can cover up deficiencies in hard/technical skills. In sum, communication skills can both establish a person's professional career and lead to one's social competence (Schulz, 2008). According to Sejzi et al. (2013), soft skills are vital for all students in successive education levels as it helps students to develop their potential in different programs in their university study. The importance of soft skills is maximized in the 21st century with technological innovations and life complexities.

There is no decisive list of soft skills, rather, different classifications have been provided for these skills based on the nature of students and the type of education. Despite the difference in the number of soft skills and their categories, students need to develop them for their success at school as well as their careers. One of the tools that have been developed to measure soft skills is the Brooking Report Card. It covers four categories of soft skills: social skills, self-management skills, academic soft skills, and learning methodologies. The way a student interacts with other students as witnessed by instructors and other adults is referred to as social skills. Self-management refers to a student's ability to plan, pay attention, reframe events, and apply mental tools to acquire control over automatic reactions. Academic soft skills refer to both social and cognitive abilities that aid in the completion of traditional academic activities. Students' involvement in school, delight in learning, and anxiety over their achievement are all examples of learning styles (Whitehurst, 2016).

A matrix with rows indicating distinct areas of competence (cognitive, realization, social, emotional) and columns representing different organizational positions (operational, management, executive) was used to identify some soft skills (Moss and Tilly, 2001). Others were discovered using a matrix with rows indicating various areas of skill (cognitive, realization, social, emotional), and columns representing various organizational positions (operational, management, executive) (Federica, 2018). There are two types of skills: self-oriented/intrapsychic and other-oriented/interpersonal. Self-directed/intrapsychic skills are those that must be learned and developed independently. What a person can learn *via* engaging with others is referred to as other-oriented/interpersonal skills (Cimatti, 2016). As a result, personal talents mostly correspond to cognitive abilities such as knowledge and

reasoning. While social skills refer to communication, listening ability, negotiating, networking, problem-solving, decision-making, and assertiveness, they also allude to interpersonal relationships (Engelberg, 2016).

Soft skills include communication, critical and structured thinking, creativity, teamwork capability, negotiating skills, self-management, time management, conflict management, cultural awareness, common knowledge, responsibility, etiquette and good manners, courtesy, self-esteem, sociability, integrity, empathy, work ethic, project management, and business management.

WebQuest is one of the most successful web-based learning tools for developing soft skills such as information skills, presentation skills, teamwork skills, and project management skills in university students. The importance of these abilities is not limited to the classroom; they are also necessary for social needs outside of one's scholastic career (Diepen et al., 2009). In the world of education, lifelong learning is a popular trend in which people are expected to continue studying throughout their lives to enhance their abilities and profit from their education. As a result, WebQuest encourages the development of a variety of skills, particularly those that are fundamentally abstract, such as soft skills. WebQuest, it might be argued, is a great tool for developing oral/spoken communication abilities as a primary soft skill, in addition to its favorable effects on encouraging written communication skills as one of the most important hard skills for students to learn.

Academic writing skills are interrelated with both soft skills and writing anxiety in the context of online learning. According to Zhang (2019), using online tools based on systemic functional linguistics (SFL) had an impact on college students' emotional alignment with writing activities. More importantly, students would be able to put the knowledge gained through online resources to good use, actively and confidently participating in the deconstruction of written discourse and the effective construction of their writing. Leveraging internet resources that are well-designed and linguistically sound is critical. It clarifies the significance of SFL as a linguistic approach for reducing students' worries while providing them with the knowledge they need to communicate effectively in writing. In addition, Balta (2018) looked at the connections between students' writing talents, writing anxiety, and metacognitive awareness when it came to composing argumentative texts. The pupils' ability to write an argumentative piece was lacking. When compared to students with moderate and high levels of writing anxiety, those with low levels of writing anxiety were more successful in composing argumentative texts. There was also a substantial association between writing anxiety and metacognitive awareness, as well as a modest and favorable relationship between argumentative text writing skills and metacognitive awareness. As a consequence of the research, it can be concluded that lowering students' writing anxiety and improving their metacognitive awareness will improve their ability to write argumentative texts.

According to Medvedeva and Rubtsova (2021), English for specific purposes, includes students with excellent hard talents as well as soft skills that contribute to better communication,

creativity, and self-realization are needed in today's environment. Modern educational standards are beginning to place a greater emphasis on the development of soft skills, recommending requirements for educational programs that include soft skills competencies. To meet these objectives, there is a productive foreign language education technique that incorporates interactive technologies and simultaneously masters foreign language communicative competency and soft skills. As a result, the study's goal was to build and test the technology for improving soft skills in engineering foreign language instruction utilizing the productive method. The study included using problem-based learning and essay writing in the technology. It was confirmed that the technology has high efficiency in improving students' soft skills.

## Leveraging WebQuests-Based Sheltered Instruction in Writing Skills

WebQuests is one of the technology-integrated sheltered instruction strategies that may play a significant role in improving academic writing skills, soft skills, and alleviating writing anxiety. It promotes efficient use of time; authentic material and the development of realistic tasks that motivate students; a collaborative and cooperative structure that encourages students to develop interdependence and responsibility; a structure that promotes higher-order thinking processes (analysis, synthesis, evaluation, etc.) (Torres, 2007). In a review of the literature on WebQuests, Abbitt and Ophus (2008) concluded that using WebQuests can favorably influence aspects that promote learning, such as improved motivation and the incorporation of technology into teaching and learning.

Concerning writing, several studies revealed that WebQuest Sheltered Instruction is an effective strategy for improving writing skills across different learning stages from primary to university. Among these is the study conducted by Chu (2004) which denoted the positive impact of WebQuest Writing Instruction on enhancing students' writing skills and lowering the fear of writing among second-year English majors from southern Taiwan. Using a WebQuest paradigm, Al-Sayed et al. (2016) emphasized the influence of developing memoir writing abilities as a creative non-fiction genre among second-year intermediate school high achievers in mainstream language schools. The experimental group's skills in memoir writing improved, according to the findings. WebQuest was found to be beneficial in developing autobiographical writing skills. Therefore, the WebQuest approach should also be incorporated into the writing teaching program.

## The Present Study

In the present study, the impact of using sheltered online instruction, represented in an interactive WebQuest, will be investigated. Also, the impact of WebQuest will be contrasted to the supposed impacts of unsheltered online instruction, represented to Google free search for information, and sheltered offline content instruction, manifested in traditional instructional practices. The study aims at investigating the beforehand mentioned teaching strategies on promoting EAP students'

academic writing skills, enhancing their soft skills, and reducing writing anxiety.

The current study uses multiple comparisons, it compares and contrasts three instructional strategies, namely, guided scaffolded online search for information, a free online search for information, and traditional offline sheltered instruction. The first two groups; students who were taught using WebQuests and those who use Google search hits to find information have similar digital literacy backgrounds as is shown in the results of the Digital Literacy Questionnaire (Son et al., 2017). Therefore, the expected impacts cannot be ascribed to any other factor except online sheltered instruction practices.

Sheltered online instruction through WebQuest yields great gains based on a multi-literacies perspective. On the other hand, unsheltered online instruction, which is manifested in free Google search, may lead students astray from the main task and indulge in other activities rather than the prescribed tasks. Using web-based learning increases positive attitudes due to certain features including systematic guidance, monitoring, scaffolding, providing immediate feedback to learners, and formative online assessment tools.

In sum, the present study attempted to provide an answer to the following questions:

- 1) What is the impact of sheltered online instruction on developing ESP students' academic writing skills in the experimental group compared with their counterparts in the control group?
- 2) What is the impact of sheltered online instruction on developing ESP students' soft skills in the experimental group compared with their counterparts in the control group?
- 3) What is the impact of sheltered online instruction on alleviating ESP students' writing anxiety in the experimental group compared with their counterparts in the control group?

## MATERIALS AND METHODS

### Design

To address the study's questions and evaluate its hypotheses, the researchers employed a sequential exploratory mixed-methods methodology to collect data and perform various analyses. The sequential exploratory mixed methods design is a research method that examines the study participants' historical experiences as well as their current thoughts and activities. Qualitative and quantitative data will be analyzed in this study (Creswell et al., 2003; Tashakkori and Teddlie, 2003; Creswell and Plano Clark, 2007, 2011; Riazi and Candlin, 2014).

It also adds to the creation of appropriate outcome measures. Exploratory qualitative components assist researchers and practitioners in determining which outcomes are most meaningful and relevant to the participants, as well as the most appropriate data collection format. Qualitative analyses aid in the identification of why disparities in intervention results occurred, the discovery of new treatment advantages, and the exploration

of impediments to reaching the best intervention outcomes in *post hoc* evaluations of the intervention impacts (Ivankova et al., 2006; Kroll and Morris, 2009).

### Sample

Three intact classes enlisted in the International English Language Testing System (IELTS) preparation course were selected to participate in the current study. Almost all of them are management sciences undergraduates and graduates in the College of Management Sciences (CMS hereafter), in both Alexandria and Tanta branches, Egypt. The experimental group includes 15 EAP students who learned English through the principles of sheltered online instruction, WebQuest. Two other classes were assigned as control groups: the first one consists of 19 students learning through free Google unsheltered online instruction; the second control group includes 20 students who were taught through sheltered offline traditional instruction.

To make sure that the students in the three classes are standing on equal footing in terms of their language proficiency, an adapted form of the Oxford Proficiency Test was used. Also, a digital literacy questionnaire was used to ensure that both online instructed groups, sheltered online instruction (WebQuest), and unsheltered online instruction stand on the same ground in terms of digital literacy. It is worth noting that before the study, none of the study participants in the three groups were exposed to a WebQuest-based learning experience.

### Instruments

To make sure that the accurate impacts on dependent variables are due to the use of sheltered online instruction "WebQuests," both controlling and testing assessment tools were exploited in the present study.

#### Oxford English Proficiency Test (B)

Before the study, an adapted version of the Oxford English Proficiency Test B was used to assess the participants' base level of English proficiency. The modified version includes three main parts; listening comprehension, reading comprehension, and writing skills. The administration of this test aimed mainly to make sure that all students in the three study groups are on an equal footing in terms of their linguistic and cognitive abilities, then, the study results are to be ascribed to the proposed teaching model that is based on sheltered online instruction "WebQuest."

#### Digital Literacy Questionnaire

Before the use of sheltered online instruction "WebQuest" with the experimental group or even using Internet website links freely without the instructors' guidance, the two online instruction groups' digital literacy level was assessed using the Digital Literacy Questionnaire (Son et al., 2017). Digital literacy refers to the students' ability or their ability to use digital technologies or their ability to adapt to unfamiliar technologies in learning (Ng, 2012). The questionnaire consists of 10 items according to the 5 point scoring rubric. It measures the participants' basic attitudes toward using digital devices; it reflects their ability to use such devices competently. Equivalent scores in the digital literacy scale

represent a guarantee that the gains in the participants' scores are to be ascribed to the SOE used in the study.

### Academic Writing Tasks Test

Pre- and post-tests of academic writing skills were used to measure the participants' academic writing abilities. In terms of the four primary domains, task achievement, coherence/cohesion, lexical resource, and grammatical range/accuracy, basic writing skills were used as an evaluation criterion. The academic writing test's major goal is to look at the pre-and post-complexity, writing accuracy, and fluency. As a result, each participant's overall score in academic writing skills was 10, with task 1 accounting for 30% of the total score (3 points) and task 2 accounting for 70% of the total score (7 points).

In around 20 min, students must write at least 150 words to assess the information supplied in a chart, graph, shape, or figure for Academic writing task 1. In activity 2, students must write at least 250 words in roughly 40 min about an issue or a specific problem, as well as possible remedies. Students were given the assignment to describe a figure from writing problem 1 of the test, which required them to produce a summary of at least 150 words in response to this specific graph, table, or method. In addition, students were given the assignment to produce a 250-word essay about "the uses of social media" following thorough preparation using WebQuest, a tool that assists them in finding information on the internet.

The writing task marking process, in general, may be affected by the subjectivity of the markers especially when instructors are markers, therefore, the instructor was not the only marker of both academic writing tasks but another colleague marked them again. The resulting scores of the two markers were divided by 2 to obtain the mean score. Consistency coefficients between the two raters are acceptable ( $r = 0.88$ ).

### Brookings Soft Skills Rating Card

Social skills, self-management skills, academic soft skills, and learning techniques are among the four types of soft skills covered by the Brookings report card, which most instructors and researchers think are vital to developing. The first category, social skills, encompasses a student's interactions with other students as seen by the instructors and other adults. The second category, self-management, refers to the observable manifestations of what has been referred to as executive functions or self-regulation, i.e., the student's ability to plan, focus attention, reframe experiences, and use mental tools to take control of what would otherwise be automatic reactions (Whitehurst, 2016).

These cognitive processes, known as soft skills, are frequently not visible to others. However, their absence shows a lack of forethought. Instructors can also discover such cognitive processes by asking straightforward inquiries, such as "What were you thinking of when you performed that?" Academic soft skills, the third type of soft skills, relate to both social and cognitive skills that serve as a supplement to traditional academic activities, such as the capacity to work independently. The fourth category is learning styles, which covers students' school engagement, pleasure in learning, and concern about their performance (Whitehurst, 2016). The card has 30 skills divided into four

categories: eight items for each of the first three categories, and six items for the fourth category, learning methodologies. The students' responses were based on a 5-point Likert scale with anchors ranging from low (1) to high (5). (5).

### Second Language Writing Anxiety Inventory

The Second Language Writing Anxiety Inventory (SLWAI) is a 22-item questionnaire intended to assess students' anxiety about writing in a second language. The three qualities that distinguish the SLWAI factors are represented by the 22 items in the SLWAI, including somatic anxiety, avoidance behavior, and cognitive anxiety. Somatic anxiety refers to a person's perception of anxiety's physiological effects, which include increased "autonomic arousal" and unpleasant emotional states such as nervousness and tightness. Cognitive anxiety is defined as "negative anticipation, fear or worry of adverse evaluation, and tests," whereas avoidance behavior is defined as "a practice of avoiding writing" (Morris et al., 1981, p. 541).

Students' responses are based on a 5-point Likert scale with anchors ranging from strongly agree (1) to strongly disagree (5) for each of the SLWAI subscales. To have a deeper understanding of anxiety from a holistic standpoint (Cheng, 2004), the larger the quantity of writing anxiety, the higher the subscales' scores, as well as the SLWAI's overall score.

### Intervention

The three classes received the pre-testing and post-testing procedures; the WebQuest was used as a suggested teaching model for the experimental group, the free internet accessibility for the first control group, and the content-based sheltered instruction practices were used with the second control group. It should be clear from the very beginning that the three groups are similar in terms of their proficiency levels, based on the results of a modified version of the Oxford English Proficiency Test. In addition, a Digital Literacy Questionnaire was implemented on both online teaching groups, WebQuest and free Google search, to make sure that the resulting outcomes are not to be ascribed to the students' inability to use online digital tools. Then, the three pre-testing tools, namely, the academic writing task 1 and task 2, Brookings Soft Skills Card, and SLWAI were administered to assess the base performance of participants.

Participants were divided into three sub-groups: one group learned through a sheltered online instructional environment through a WebQuest; the second group was not allowed to use the WebQuest but learners were able to search freely for information without guidance from their instructors; the third group was taught using the traditional methods with sheltered content instruction principles with no guided or free web access. The only source of information is the printed materials used for the sake of test preparation. The tasks were structured for the three experimental groups involved in the study.

The participants in the experimental group were asked to use the WebQuest designed especially for the study through the Zunal WebQuest maker website<sup>1</sup>. The learners will find a brief introduction to the two IELTS academic writing tasks 1 and 2

<sup>1</sup>www.zunal.com

added to an overview of the instructions in performing them. Also, a full description of the tasks was provided on a separate page to make them aware of the successive steps to successfully achieve the goal and to get the highest score. Additionally, to avoid misleading, waste of time, and effort in the process of finding information, a list of suitable websites, webpages, blogs, and links was provided to the students. In this SOE, the students work collaboratively to produce high-quality pieces of writing.

The WebQuest designed for the current study consists of 20 lessons which are divided into two main parts; academic writing skills including 12 lessons, and soft skills including 8 lessons. Academic writing skills include lessons dealing with the writing process, mechanics of writing, form, and style. On the other hand, the part designed for soft skills includes two lessons dealing with each social skill: social skills, self-management skills, academic soft skills, and approaches to learning.

In a sheltered online instruction environment, students can ask their instructors' guidance and receive peer help. These environments help learners to get corrective feedback on their performance. Students refine their work as they receive collaborative online feedback. On the other hand, the first control group, who depends on searching for information through common search engines, supposedly Google, has no systematic guidance from their instructors. Students in this group are free to log in to any web page that they think includes the target information. Hence, they are not provided with the list of links the instructor recommends the experimental group to use. Students in this group receive no scaffolds – whether immediate or postponed, temporary, or continuous – to assist them to find the most appropriate information that supports them in achieving the prescribed goals.

In the second control group, students were taught through unsheltered traditional offline instructional methods and received no experimental online treatment. Also, they did not have accessibility to the designed WebQuest. They only had access to printed materials including hard copies of the preparation courses and other self-study resources. Besides, the students in this group were not exposed to online materials that include the free Internet mock tests designed to assess their expected band scores in the actual official tests. Rather, these materials were offered in a form of hard copies.

The writing process for the three groups extends from the prewriting activities to the proofreading and editing process due to the recursive nature of the writing process. Yet, the WebQuest group was privileged to easily get digital materials, which support their learning. It includes materials that help learners in the successive writing stages from brainstorming to generating ideas, organizing them in a systematic order, till the stage of proofreading and publishing process. Collaborative online writing includes students asking their peers to edit their writings, they exchange their work to get immediate feedback concerning the use of mechanics; punctuation, grammar structures, and spelling.

Moreover, peer editing includes checking for accurate content information, word count, type of organization, use of appropriate language, and transitional signals for achieving cohesion and

coherence. Results of peer editing were easily exchanged online among group members through emails or other digital media. The peer-editing process can be duplicated or done in a threshold style, i.e., an edited piece of writing may be sent to another peer or other peers to edit, in such a case, multi-coloring should be used with stable colors to be used by certain peer editors to understand their effectiveness in editing and to judge the quality of their edits.

On the contrary, the first control group received no peer editing or instructor's corrective feedback along the successive stages of the writing cycle, they generated ideas on their own, organized ideas, and edited their finished written products. The first type of feedback they received was in an official form, it was their scores in the test with no opportunity to modify their writing. In addition, the other control group learning through offline traditional teaching methods produced their writing with the help of their peers and the support of their instructors.

Yet, this type of support is limited to the class time, it stops as they leave class and go home due to the lack of online scaffolding interactive environment available for the experimental group. In the face-to-face instruction, participants are privileged to see non-verbal signs concerning their works, their signals can be received and decoded on time. The instructor also can stop the sessions to deliver certain comments on common errors or mistakes that may impede them from finishing the task effectively.

In each writing task, the participants in the three groups, learning through sheltered online instruction, unsheltered free Google search, or offline traditional teaching methods, went on recursive writing processes and then submitted the assignment to the instructor to get the score. After 10 teaching writing sessions, the participants were post-tested using IELTS academic writing task 1 and task 2 which is similar in terms of difficulty and procedures to the post-test.

To understand the participants' attitudes toward using sheltered online instruction environments, a semi-structured interview was conducted with individual participants in the experimental group who were taught through WebQuest. The individual interviews with each participant took 20 min, which formed the basis for qualitative analysis.

## RESULTS

### The Quantitative Analysis

The three measures were used to pre-test and post-test the participants: the writing skills test, the soft skills scale, and the writing anxiety scale (SLWAI). The application of the *t*-test for inferential statistics was used to analyze the statistical differences between the mean scores of the pre-test and post-test scores in the three cases. The *t*-test was based on the participants' pre-and post-testing scores, whilst the one-way analysis of variance ANOVA was based on the post-test scores of the three testing tools.

**Table 1** presents the results of the *t*-test of the mean differences/one-way ANOVA which examines the impact of sheltered online instruction, unsheltered online instruction, and

**TABLE 1** | ANOVA of academic writing skills.

Dependent Variable	Testing	Sheltered online instruction (N = 15)		T-test	Unsheltered online instruction (N = 19)		T-test	Sheltered offline instruction (N = 20)		T-test	Type I Sum of Squares	df	Mean Square	F	Sig.
		M	SD		M	SD		M	SD						
Academic writing skills	Pre-testing	3.73	0.53	15.40	3.42	0.44	8.16	3.55	0.48	21.35	46.84	2	4.872	6.70	0.003
	Post-testing	6.13	0.69		4.68	0.94		5.35	0.65						

**TABLE 2** | ANOVA of soft skills.

Dependent Variable	Testing	sheltered online instruction N = 15		T-test	Unsheltered online instruction N = 19		T-test	Sheltered offline instruction N = 20		T-test	Type I Sum of Squares	df	Mean Square	F	Sig.
		M	SD		M	SD		M	SD						
social skills	Pre-testing	19.80	2.14	5.19	18.46	3.09	1.143	19.60	2.38	2.606	1461.33	51	391.43	29.437	0.00
	Post-testing	27.73	5.39		19.00	3.00		20.53	2.50						
self-management skills	Pre-testing	18.46	2.13	9.34	16.26	1.85	3.50	17.93	2.64	5.982	2169.92	51	716.85	49.65	0.00
	Post-testing	30.06	5.82		17.66	2.38		20.13	2.77						
academic soft skills	Pre-testing	19.00	1.41	6.11	18.06	2.73	3.096	18.86	1.95	7.246	1868.63	51	503.56	29.803	0.00
	Post-testing	29.20	6.77		19.13	2.68		20.86	1.80						
approaches to learning	Pre-testing	15.20	1.47	6.95	14.60	2.51	1.606	15.06	2.14	5.551	614.75	2	135.41	20.08	0.00
	Post-testing	20.66	3.08		15.06	2.57		16.33	2.18						
Total	Pre-testing	72.46	5.20	17.68	66.57	7.97	14.37	71.47	6.71	13.31	21114.00	2	6498.22	40.826	0.00
	Post-testing	107.67	20.30		69.69	8.71		77.86	6.61						

**TABLE 3** | ANOVA of writing anxiety scores.

Dependent Variable	Testing	Sheltered online instruction		T-test	unsheltered online instruction		T-test	sheltered offline instruction		T-test	Type I Sum of Squares	df	Mean Square	F	Sig.
		M	SD		M	SD		M	SD						
Somatic anxiety	Pre-testing	22.80	1.69	7.781	24.89	2.49	1.879	23.25	1.916	6.99	1032.75	2	270.50	28.05	0.00
	Post-testing	16.00	3.22		23.94	4.00		21.40	1.72						
Avoidance behavior	Pre-testing	25.46	1.407	6.368	28.47	4.01	0.533	25.85	1.66	6.015	898.83	2	260.15	35.05	0.00
	Post-testing	18.86	4.103		28.15	2.24		23.70	1.59						
Cognitive anxiety	Pre-testing	22.60	1.59	6.484	23.84	2.89	1.619	22.85	1.63	5.965	1351.92	2	388.62	34.48	0.00
	Post-testing	16.00	3.48		24.68	2.13		21.00	1.747						
Total	Pre-testing	70.86	2.06	7.691	77.73	4.67	1.204	71.95	2.13	24.015	8281.33	2	2710.05	48.30	0.00
	Post-testing	50.68	9.74		76.26	8.93		66.10	2.22						

sheltered offline instruction on the post-tests of the participants' academic writing skills after controlling for the pre-tests.

**Table 2** presents the results of the *t*-test of the mean differences/one-way ANOVA which examines the impact of sheltered online instruction, unsheltered online instruction, and

sheltered offline instruction on the post-tests of the participants' soft skills after controlling for the pre-tests. It is clear from **Table 3** that the two sheltered instruction groups – online and offline – have achieved higher than the third group, which has a free unsheltered Google search. When comparing the two

**TABLE 4 |** Themes of the EAP learners' attitudes and perceptions toward the impact of WebQuest on academic writing skills, soft skills, and levels of writing anxiety.

No.	Themes	Explanation
1	Student-centered learning	Students were presented with certain tasks, that helped them to explore innovative roles; leaders/facilitator, recorder, presenter, and timekeeper.
2	The difference in Teachers' Role	The teachers' role was also different from the traditional one; dominating role changed to be a consultant, temporal advisor changed to be all the time partner, and the sage on the stage became just a guide to acknowledged and competent learners.
3	Active learning	Students can participate actively in preparing materials, judging the quality of the WebQuest, and interacting with the content instructors design. Students are therefore active learners while teachers scaffold their learning and give support once students need it.
4	Interactions lead to effective communications.	Using WebQuests saves students' and teachers' time and effort that can be exploited in active and rigorous interactions inside the classroom.
5	Due attention to Individual differences	Individual differences among learners were given due care when designing the WebQuest through the leveled tasks and activities. <b>S1:</b> He expressed his shyness at the very beginning regardless of the entertainment he expected and felt in using WebQuest, he said: "I was very shy to participate because I was afraid my colleagues will laugh at me when I got a mistake"
6	Motivating online learning environment	In addition, students were enthusiastic to take part in the learning process due to the motivating online learning environment. <b>S2:</b> She was enthusiastic to use WebQuests for better learning opportunities, she said: "learning through the WebQuest strategy is fun, it is an interesting experience yet it is a challenging one."

sheltered instruction groups, the online sheltered instruction group has shown to achieve better than the offline sheltered instruction group when responding to the IELTS writing test. The mean scores of the two groups taught using sheltered instructional practices, online and offline, are  $M = 6.13$  and  $M = 5.35$ , whereas the mean scores of the unsheltered offline group taught through free Google search are  $M = 4.68$ . These results denote that the two sheltered instruction groups achieved better scores in the IELTS writing test than the students who were left free to navigate through search engines to search for information.

Table 3 presents the results of the  $t$ -test of the mean differences/one-way ANOVA which examines the impact of sheltered online instruction, unsheltered online instruction, and sheltered offline instruction on the post-tests of the participants' writing anxiety levels after controlling for the pre-tests (i.e., covariates). Online sheltered instruction represented in the WebQuest teaching practices has surpassed the other sheltered offline instruction group developing their knowledge of soft skills through lucky hits on the buttons of Google search engines. Also, both sheltered instruction groups, online and offline, have achieved better in terms of their soft skills than the unsheltered online free Google search group.

Tables 1–3 show that the WebQuest approach had a significant and favorable impact on the experimental group EAP learners' academic writing skills, soft skills, and level of writing anxiety after controlling for the pre-tests. It could thus be concluded that the WebQuest model, as one of the web-based strategies, was a more effective instructional process in developing EAP learners' academic writing skills, soft skills, and levels of writing anxiety than the two control groups: the first of which was taught using unsheltered online instruction through free online information search, and the second of which was taught through sheltered offline instructional practices.

The students' mean scores of the three testing groups revealed many gains in favor of the sheltered online instruction group. Then, the second better achievement

is scored by the sheltered offline instruction group. The last rank was scored by the group taught by unsheltered online instruction, which allows students to increase their writing self-confidence to diminish their writing anxiety levels. The web-based sheltered instruction practices and in-class offline instructional practices based on sheltered instruction support learners' self-confidence through unlimited cooperation and collaboration among and between learners and their teachers.

### The Qualitative Analysis

Following the thematic analysis of the transcribed semi-structured interviews, various themes emerged, the findings of which are provided in Table 4.

The findings of the study generally indicated positive perceptions and attitudes of the EAP learners toward the impact of WebQuest on developing academic writing skills, soft skills, and writing anxiety skills which further coupled with the quantitative findings. Therefore, mixed-method analysis of both quantitative and qualitative data was obtained from the statistical treatment of testing processes and the semi-structured interviews with participants after the experimentation. Positive opinions were expressed through the students' casual responses. Other students were reluctant to participate in learning through WebQuests, but after the experiment, they changed their minds.

## DISCUSSION

Sheltered online environments are primarily intended to assist learners in making better use of their time, as well as to promote their thinking and active participation at the levels of analysis, synthesis, information transformation, decision-making, and assessment (Ridgeway et al., 2002; Ikpeze and Boyd, 2007). Sheltered online training is a strategy for supporting higher-level thinking and learning. They also assist in the development of knowledge acquisition in an internet environment that is poorly structured (Spiro et al., 1994). The findings are consistent with those of

Ebadi and Rahimi (2018), who found a significant and positive impact on EFL learners' critical thinking and academic writing skills in a WebQuest-based classroom, and Ebadi et al. (2017), who found positive impacts on EFL learners' critical thinking and academic writing skills in a WebQuest-based flipped classroom. The structural disparities between sheltered online instruction as reflected in WebQuests, unsheltered online learning, and sheltered offline instruction, on one hand, could explain these findings.

Scaffolding strategies, which are designed to foster a deeper degree of learning, are used heavily in sheltered online instructional environments. It refers to the support that teachers provide during the learning process, which is targeted to the student's needs with the goal of assisting students in achieving their learning objectives. Instructional scaffolding is provided based on the needs of the students; not all students require assistance, and not all of them require assistance to the same degree or for the same length of time. Individual characteristics among learners are taken into account when building the WebQuest, which differs from traditional teaching approaches in that it helps learners become more motivated to study. The WebQuest model is built on a student-centered approach, which allows students to participate actively in the preparation of the course material by providing them with a variety of web-based resources to work with freely.

The findings of the study with regards to the soft skills development through the sheltered online instruction are in line with those of Rabi'ah Husin et al. (2015) who found that WebQuests – as an interactive SOE – supported university students' learning and created positive attitudes and perceptions. The value of these results becomes greater due to the difficulty of improving soft skills; the WebQuest model is based on constructivism, self-directed learning, collaborative learning, situated learning, and scaffolded learning (Chen and Hsiao, 2010).

In addition, SOEs depend mainly on technology integration into teaching and learning, which leads to positive learning outcomes (Ottenbreit-Lefwich et al., 2010; Shieh, 2012), these environments also include openness, personalization, social presence, and collective wisdom for both learners and instructors (O'Reilly, 2005; Dabbagh and Reo, 2011). Moreover, an online learning environment plays a great role in shaping collaboration among learners (Stahl et al., 2013).

Among other priorities of the SOEs over the unsheltered online instruction and sheltered offline instruction were the qualified teachers who can promote thinking skills, especially HOTs. As Chuang (2016) states, teacher training is crucial to cope with new technologies involved in the online environments, cloud computing and social networking are among these trends. In addition, WebQuests provide the opportunity for learners to focus on how to use and find quality information on the internet, it also helps students develop autonomy to do their work, share opinions, discuss, and solve problems (Barros and Carvalho, 2007; Puthikanon, 2009; Oliver, 2010).

In line with the present study, Awada and Ghaith (2014) claim that the learners' satisfaction and positive attitudes have led to minimized writing task apprehension due to the student-centered feature of the sheltered online instruction environments. The reason behind such findings could be due to some characteristics of the WebQuest such as collaborative work, scaffolded practices, active learning, and inquiry-based activities. Learners enjoy using WebQuest, which they believe helps them to feel ownership of their learning, also the use of authentic materials, activities, and tasks is great merit in such environments.

Based on both quantitative and qualitative findings, the EAP learners were interested in sheltered online learning environments through WebQuests compared with other two types of learning approaches; free online learning with no sheltering, and sheltered offline instruction. For both the sheltered online learners and sheltered offline groups, academic writing skills have been improved due to the scaffolds the instructors provided to support learners and consolidate their learning.

The learners of the two groups worked cooperatively whether inside the classroom for off-liners or outside the classroom or formal schooling for on-liners. Scaffolding learning includes collaborative peer work and receiving immediate feedback, which helped learners to improve cognitive skills. However, sheltered offline instruction in traditional instruction was not a good aid for learners to suppress their anxiety once they are asked to write, traditional teaching unless sheltered keep the writing anxiety high as it was before the experimentation.

On the other hand, unsheltered online instruction helped learners to develop their cognitive abilities through promoting academic writing skills, yet not to the same extent as sheltered online instruction does. However, unsheltered online instruction failed to develop soft skills and the levels of writing anxiety are still high, indicating a reluctance to do writing tasks later on. Using searching engines to locate information within websites, webpages, and links is not a systematic teaching/learning approach, it is a tool rather than a goal in itself, and it should be exploited as a technique within a comprehensive teaching approach not separately.

In sheltered online instruction, students were presented with certain tasks, which resulted in innovative roles; leaders/facilitator, recorder, presenter, and timekeeper. Academic writing tasks were presented to EAP students to work cooperatively with each other to achieve their goals with teachers as monitors. To assess the students' understanding, students were asked to answer the questions and to do assignments in the evaluation section of WebQuest, which works as a summative evaluation. Additionally, peer-review helps students to know the right answer and to get them involved in the session. In addition, formative assessment instruments were used along the WebQuests through the ongoing evaluation at the end of each session.

Sheltered online instruction includes learners who can work cooperatively in their groups to achieve their goals.

Psychologically, teachers made sure that all group members participate actively to perform tasks with no free-rider effect existing in the group work. In WebQuests, learners were privileged to work individually in advance through the online materials instructors provide. Additional co-curricular materials and handouts support students to consolidate information obtained and knowledge acquired.

The learners reported that teachers in sheltered online instruction did their best to make the content comprehensible for them through different means such as connecting students' prior knowledge to the content to be learned through WebQuest. Also, the teachers explicitly taught the learners linguistic components including vocabulary, academic language, and language structures to enhance their understanding. They reported that they learned quite a lot from their classmates through the process of collaborative feedback and peer editing because learners shared their different understandings under the teachers' control.

Moreover, the learners had positive feelings to take part in online activities. Students answer the quizzes at the end of each session to assess their ongoing progress. Additionally, the instructor's feedback of the students' answers to academic writing tasks was effective to stand on the ongoing progress. Teachers followed up on the students' work to assess their development and ask them to reflect on their progress after learning through WebQuest. Learners reported that peer correction and reviews help them to alleviate assessment anxiety. They thought they were more confident to interact with their classmates, self-confidence is maximized whereas anxiety level is kept minimal due to the use of sheltered online instruction.

Learners reported that they had positive feelings as teachers in the SOEs present cognitively demanding information and tasks in context-embedded ways, e.g., graphic organizers and visual representations. In addition, teachers use cooperative learning to facilitate content understanding and promote language development. Overall, EAP learners had positive attitudes and perceptions toward using sheltered online instruction through WebQuests, which promoted academic writing skills, soft skills, and minimized levels of writing anxiety, nevertheless, some learners in the experimental group have complained from the bad internet connection due to the overload of users logging into the WebQuest the same time.

## CONCLUSION

The EFL scholars and practitioners can use the principles of sheltered instruction to design interactive online learning environments to provide learners with authentic instructional materials side by side with formative online assessment. It also helps learners to feel ownership of their learning, they can participate actively in the production of materials and collaborative learning activities. WebQuests as a SOE lays the foundations of constructivist learning that is revealed to be effective in

developing academic skills besides its promising impacts on improving soft skills that are crucial for study and career opportunities.

Implementing sheltered online instruction supports learning by saving time for productive interactions, which helps in developing soft skills that cannot be easily developed through unsheltered traditional instruction. Technology integration with sheltered instruction principles provides learners with online resources carefully selected and provided by the instructors to guide the learners to find the information. It helps learners to develop higher thinking skills, solve problems, and construct knowledge that is most meaningful to them.

English as a foreign language teachers are further recommended to sufficiently activate scaffolding, active learning, deep learning, collaborative peer work, and to encourage learners to be responsible for their learning. Due to the merits of using sheltered online instruction environments, teachers are recommended to use WebQuest in language learning. It is also recommended to use such a model on improving thinking skills, especially HOTS, it also helps create positive attitudes toward language skills especially in an endeavor to undertake high-stakes language tests.

## Call in Context

To provide learners in the experimental group with a sheltered online instructional environment, a WebQuest was designed to provide learners with the platform to get instructional materials and recorded audio-visual materials. WebQuest also provides learners with an interactive interface to exchange information, materials, ideas, and opinions, which enriches interactions and discussions around the activities and tasks. It, therefore, plays a vital role to develop not only in academic achievement, but it adds value in teaching practices through its ability to improve thinking skills. Hence, the participants could be independent in their learning, they are free to initiate and cooperatively practice. Furthermore, the teacher-researcher helped the participants to find information easily through the WebQuest, enabled collaboration, and paid due attention to the individual differences among learners and their learning styles.

Although the content remained identical for the three testing groups; sheltered online instruction, unsheltered online instruction, and sheltered offline instruction, the content delivery time took 10 teaching sessions which were abundant for the WebQuest users compared with their counterparts learning through traditional methods. The WebQuest model includes active learning, it is a structured model of teaching that is based on the five essential elements of Introduction, Process, Task, Evaluation, and Conclusion. It provides the learners with useful websites including printed materials as well as audio-visual materials in order not to waste learners' time and effort in searching for information in lucky trials through the Internet. WebQuests represents an alternative teaching method that enhances students' motivation through providing an alternative assessment of students' learning using technology. Hence, it helps

teachers be aware of students' degree of knowledge acquisition and implementation. It enhances teachers' creativity not only in academic skills but also promotes learners' HOTs through active learning practices.

## AUTHOR'S NOTE

AS was now affiliated with the College of Management Sciences, Sadat Academy for Management Sciences, Egypt. AS is an associate professor of Teaching English to Speakers of Other Languages (TESOL) and Educational Technology, he is an author, editor, and editorial board member in international refereed journals.

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## DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

## AUTHOR CONTRIBUTIONS

The author confirms being the sole contributor of this work and has approved it for publication. The author has implemented the proposed online teaching strategy to develop the target skills. The author validated the study tools, reaching the results, and discussed them within the CALL context.

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