

# The Effect of a Web Quests Instructional Program on Developing Saudi EFL Learning Habits

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## Abstract

The teacher is considered the cornerstone of the educational process; the quality of education is linked mainly to teachers who perform such a necessary process. The shift in pedagogical thinking has led to progress in looking at the teacher's roles; he is no longer transferring knowledge to learners, but instead, he has become a mentor, a mediator, a planner, an intellect, and a leader. If we analyze these missions from the perspective of mental habits, we will see that they require the teacher to develop the skills of perseverance, listening comprehension, thinking flexibly, controlling emotions, self-confidence, communication skills, and other essential skills. The current research verifies the effectiveness of an instructional program based on web quests in developing habits of the mind of English language students. The study employed a quasi-experimental design. The sample consisted of 46 male students representing two classes. They were assigned randomly into an experimental group (n=24) and a control group (n=22). They were undergraduate students majoring in the English language. The findings showed a statistically significant difference in the mean scores of the experimental and control groups favoring the experimental group. The study concludes with some recommendations to differentiate teaching techniques in EFL classrooms.

## Keywords:

*Web quests, EFL, learning habits, mind habits*

## 1. Introduction

The teacher is considered the cornerstone of the educational process; the quality of education is linked mainly to teachers who perform such a necessary process. Preparation of pedagogical thinking has led to the progress in looking at the teacher's roles; he is no longer transferring knowledge to learners, but instead, he has become a mentor, a mediator, a planner, an intellect, and a leader. If we analyze these missions from the perspective of the mind habits, we will see that they require the teacher to develop the skills of perseverance, listening comprehension, thinking flexibly, controlling emotions, self-confidence, communication skills, and other essential skills. At the end of the twentieth century, a new trend in pedagogical thinking has appeared, calling for the concentration on developing mind habits; within the rising interest in developing intellect. The leaders of this trend have focused on developing strategies that develop thinking in its different dimensions, which later became known as habits of the mind.

Habits are known as repetitive actions the individual goes through; it is repeatedly done until it becomes second nature to the individual. The best way to excel in these habits is by performing them in primary missions that are usually simple, then moving on to more complex ones. Mind habits are a kind of acquired behavior through repetition as they are ingrained in mind. They are also defined as intelligent practices that lead individuals to innovative actions [1]. Mind habits are divided into openness, intellectual justice, independence, and resorting to paraphrasing or creative thinking [2]. While Marzano et al. defined mind habits as self-organization, creative thinking, and critical thinking [3]. Habits of the mind represent one of the most critical dimensions of learning that plays an essential role in raising performance efficiency and easing creative learning. Therefore, including them in the teacher preparation program is considered an essential topic, so the learner can act positively in all situations and circumstances, which increases his ability to achieve his role efficiently and actively.

The future entails specific additional skills and abilities that the teacher may provide to interact with the modern technologies and methodology in learning and the current trends in the school curricula. This is allowed in web quests based on the learner; they are composed of a group of missions that allow the learner to perform specific processes of surveying, researching, and assisting the learner in forming the cognitive structure that he creates [4].

The theoretical basis of Web Quest can be traced back to Marzano's Dimensional Learning Theory, in which the learning process involves a dynamic interaction between the five dimensions of thinking, namely (1) the development of positive attitudes and perceptions about learning; (ii) Acquisition and integration of knowledge; (3) Expand and refine knowledge. (iv) Purposeful use of knowledge; and (5) developing productive strategies [5]. Marzano based his assumptions on Bloom's taxonomy of learning objectives, which identified six stages of cognitive processes, widely viewed as objectives by scholars and practitioners, including knowledge, understanding, and application. Knowledge, comprehension, application, analysis, synthesis, and evaluation are steps in the learning process according to Bloom's taxonomy. Higher-order thinking skills (HOTS) are the last three levels and are expected to increase due to the implementation of Web Quest [3].

Web quests aim to present a new educational system that allows the students to use it within all school stages and syllabus by using the websites in the educational process. Due to the importance of web quests, it has been the center of many studies. Tran's study aimed at investigating the effects of integrating the

Internet in teaching students of the sixth primary stage. The results revealed that using the Internet, especially web quests in teaching, was among the best methods that mix technology in education, as it seems easy to use inside the classroom [6].

A web quest is a directed activity that allows students to use the Internet to gain new knowledge and broaden their understanding of a topic. Usually referred to as virtual trips, students are directed on web quests to search for information over the Internet. This includes a purposeful search for information necessary to fill in some gaps to enhance understanding [7]. Bernie Dodge and colleagues at the University of San Diego designed a web-based learning model in 1995 to respond to the overuse of ICTs in educational settings. A typical Web Quest consists of web pages that provide a specific structure to the learning process [7]. Successful Web Quests contain specific key steps: introduction, assignment, sources, process, evaluation, and conclusion [7] & [8]. Web Quest usually begins with a brief introduction or introduction, and an introduction highlights basic knowledge about the topics under discussion. In contrast, Web Quest ends with an assessment in which learners conclude the topic.

The second part of Web Quest is a description of the tasks and activities involved. To perform the tasks described, students should refer to specific resources. Thus, in the third stage, a list of online supporting resources links to websites related to the topic to help students perform the tasks successfully. A description of the processes that learners must follow in pursuit of the tasks identified is provided in Phase 4 of Web Quest [9]. The process is described through several web pages that include systematic explanations and individual questions as a guide to support students in achieving their goals. The penultimate stage of Web Quest is the Summative Assessment, which assesses students' understanding and provides feedback when necessary. Web Quest ends with a conclusion that summarizes Web Quest's learning outcomes as an enjoyable learning experience.

Sen and Neufeld aimed at using web quests in teaching the English language to raise their academic achievement. The research then concluded that using web quests assisted learners to develop their achievements and acquire information more accessible, faster, and dealing positively with their peers [10]. The study of Wood and Quitadamo used web quests in assisting the children of the fourth primary stage to design a living thing map of planet earth and the living organisms. The results confirmed the efficiency of web quests in developing learners' skills of imagination and abstraction [11].

Therefore, the researcher sees a vital problem that deserves studying and researching considering the previous literature. It is represented in the absence of dimensions and components of the habits of mind, including programs of training teachers of English language in colleges, as these programs are by nature and function supposed to be open to such dimensions and ideas that express new pedagogical trends.

### 1.1 Research questions

The current research verifies the effectiveness of an instructional program based on web quests in developing habits of the mind of English language students. It answers the following questions:

1. What habits of mind should the students of the English language department excel at?
2. What is the effectiveness of the instructional program in developing English language department students' habits of the mind?

### 1.2 Research objectives

The current study aims at:

1. Defining the components and dimensions of the habits of mind that students must develop.
2. Increasing students' level of awareness about the habits of mind.
3. Investigating the effectiveness of an instructional program based on web quests in developing habits of the mind of English language students.

## 2. Methodology

The study employed the quasi-experimental design to examine the effectiveness of an instructional program based on web quests in developing habits of the mind of English language students. The participants were assigned randomly into two groups: An experimental and a control group. The research instruments (scale of the habits of the mind and an observation checklist) were pre-administered to both groups to measure students' awareness before the intervention. The same tools were re-administered to both groups at the end of the study to measure the differences between the two groups.

### 2.1 Participants

The data for this study was collected during the second semester of the 2017/2018 academic year at Al-Qunfudah University College in Saudi Arabia. The sample consisted of 46 male students representing two classes. They were assigned randomly into an experimental group (n=24) and a control group (n=22). They were undergraduate students majoring in the English language. The same teacher taught the two groups; the experimental group received the instruction through web quests, while the control group adopted the usual instruction.

### 2.2 Instruments

The first instrument was the observation checklist. To design the checklist, the researcher has considered a list of habits of the mind components students should develop considering the following resources:

- The previous studies and research conducted on the habits of the mind.
- Theoretical literature on the topic of research.
- The characteristics of college students and requirements for their growth and academic development.

After reviewing the previously mentioned resources, the researcher reached a preliminary list with some components of the habits of the mind that the student should develop:

- Persistence
- Controlling impulsivity
- Mutual thinking
- Thinking flexibly
- Questioning and posing questions

- Applying the information in new situations
- Imagining and creativity- innovation
- Responding with awe and astonishment

To verify the validity of the checklist and it is being comprehensive and objective, the researcher has presented the list to a group of experts to achieve the following aims:

- Giving experts' opinions on the suitable mental habits mentioned in the list.
- The possibility of adding, deletion, or adjusting the list. The experts have evaluated the list, assuring that it was suitable for the study.

**Therefore, the checklist in its final draft consisted of eight elements as follows:**

- Persistence: abiding by a particular assignment of the person until ended.
- Controlling impulsivity: slowing down and lack of impulsivity and thinking before acting.
- Mutual thinking: working within teams, cooperating, and interacting with peers.
- Thinking flexibly: thinking of alternatives and several points of view.
- Questioning: The ability to pose questions while eliciting a group of questions with alternatives through getting the data from different resources.
- Applying the information in new situations: the ability to benefit from it and use it in new contexts.
- Imagining, creativity, and innovation: the ability to add, innovate, and think creatively.
- Responding with awe and astonishment: the ability to respond and enjoy and find answers by continuing learning while feeling inspired.

The second instrument was the self-reported scale of habits of the mind. Students were asked to rate themselves on the eight categories mentioned above; four statements that carefully describe the students at various levels followed each category. Students had to assess themselves in a range between 1 – and 5. The scale was subjected to validity and reliability criteria to verify its validity and reliability before applying it to students.

The instructional program proposed in this study is based on the following intellectual ideas:

- The habits of the mind are liable to learn and develop
- The habits of the mind are liable to be observed and measured.

The instructional program aimed at developing skills and attitudes that enable the students to practice some mind habits: Persistence, mutual thinking, thinking flexibly, questioning, applying knowledge in new situations, imagination, creativity, innovation, and responding with awe and astonishment. The instructional content was defined considering the objectives of the program. The program was composed of eight quests; each one forms a mental habit of the mind of the previous habits assigned in the list; each quest was characterized to target a specific habit of the mind. The researcher depended in the program's execution on an

example of an educational site as each quest includes an introduction, assigning the missions, the procedures, assigning resources, and evaluation.

The evaluation of the program contained the following tools:

- The scale of the habits of the mind.
- Direct observation of the students' responses during the application of the program.

### 2.3 Procedures

The current experiment aims at investigating the effectiveness of a proposed program in developing the habits of the mind of the students. Research tools included the scale of the habits of the mind and the observation checklist, which were applied to students from the control and experimental group. The results of the pre-application came as follows:

**Table 1:** Results of the differences between the experimental and control groups in the pre-measurement of the checklist

Group	N	Mean	SD	DF	t	Sig.
Expr.	24	17.2	11.12	44	0.22	0.82
control	22	16.5	11.23	44		

The lack of statistically significant differences in the mean scores of the control and experimental group represents equivalency in the research sample of both groups.

**Table 2:** Results of the differences between the experimental and control groups in the pre-measurement of the scale

Group	N	Mean	SD	DF	t	Sig.
Expr.	24	22.68	2.36	44	1.59	0.11
control	22	21.55	2.44	44		

Table 2 shows that the mean score of the experimental group students on the scale was 22.68. The mean score of the control group students on the same scale is 21.55. Finally, the t value is 1.59, which is statistically non-significant and shows the equal levels of performance of the students of the research sample of both the control and the experimental groups.

The researcher taught the suggested program to the experimental group of students while teaching reading in EFL course. Teaching the program took eight quests, two hours a trip. Each web quest begins with identifying tasks, where students search and read about these tasks using various electronic sources. After students have researched and read several texts or parts of texts, they transform the information into a new product. Therefore, web quests require students to apply and synthesize knowledge as they complete their tasks.

### 3. Findings

To investigate the effectiveness of the instructional program on developing English language department students' habits of the mind, the independent sample T-test for the post-administration of the research tools was calculated as shown in Table 3:

**Table 3:** the results of the application of the observation checklist (control and experimental groups)

Group	n	m	SD	t	DF	Sig.	Effect size (d)
Experimental	24	31.5	2.34	4.49	44	0.00	1.29 (large)
Control	22	21.46	10.7				

There is a statistically significant difference in the mean scores of the experimental and control groups favoring the experimental group in the post application, as the value of  $t$  is 4.49 and the mean scores of the experimental group in the post application of scale 31.5. Whereas the mean score of the students in the control group is 21.46, and  $P$  is significant at 0.01. It is also noted from the table that the value of " $d$ " has reached 1.29, a value that confirms that the instructional program based on web quests had a "large" effect on the students' learning habits.

**Table 4:** the results of the application of the mind habits scale (control and experimental groups)

Group	n	m	SD	t	DF	Sig.	Effect size(d)
Experimental	24	37.03	1.42	19.15	44	0.00	5.71 (large)
Control	22	25.58	2.45				

The previous table shows that the mean scores of the experimental group in the post-application of the scale reached 37.03, which confirms the program's effectiveness in achieving its objectives. This also entails a statistically significant difference that clarifies the scores of the students of the control and experimental groups favoring the experimental group that studied the program as measured by the habit of the mind scale. It is also noted from the table that the value of " $d$ " has reached 5.71, a value that confirms that the instructional program based on web quests had a "large" effect on the students' self-assessment of their learning habits.

#### 4. Discussion

In contrast to the traditional classroom, web quests are learner-centered and require active learning. Web quests also need students to have higher levels of thinking and processing information as students apply, collect, analyze, and evaluate. Web tasks also stimulate comparison, categorization, induction, inference, error analysis, building support, abstraction, analysis of viewpoints, etc. Web quests involve collaborative activities where students work together as an integrated group or in small groups to develop a single result. Therefore, they are a relatively straightforward way for teachers to begin integrating the Internet into the language class, as no specialized technical knowledge from the teacher is needed to produce or use them. Web quests are stimulating and original tasks that encourage learners to see their activities as "real" or "helpful." This inevitably leads to more effort, greater focus, and a genuine interest in getting the job done. Web quests can be more incentive than old textbooks and other similar teaching materials. Web quests also provide a

natural environment for fostering respect for diversity. While working in their groups, students come across diverse and possibly divergent opinions from others and their group members as they seek to work together towards a deeper understanding of the topic. Various ideas and new ways of learning and knowing are highlighted, and similarities and differences help understand and solve the problem.

Web Quests are a trendy way to use Internet resources to research a variety of topics or to dig deeper into a topic. It can activate the situations necessary to develop written and oral communication if used correctly. Web Quest is a research activity that causes the student to "gather information about a topic using the Web"[12]. While doing the learning tasks, the students do not expect to receive 'ready to use knowledge and clichés; they participate in the research activity. Therefore, the educational journey should consist of a compelling, clearly formulated introduction, a task that provokes high-level thinking, a division of roles that provide many roles and perspectives, and thus the proven use of Internet resources [13]. In the context of contemporary educational innovations, blended learning combines different training methods to be effective [12].

#### 4.1 Recommendation

Considering the previous results of the research, the researcher recommends the following:

- As the current study presented a list of items including the dimensions and components of the habits of the mind that should be enriched in the students, the researcher urges the necessity of benefitting from this list when developing a teacher preparation program.
- As the current study reached a specific instructional program based on web quests that develop the habits of the mind, the researcher recommends using effective CALL strategies based on the active roles of the students and their active participation during the educational situation.
- The researcher recommends updating the teacher training programs to include modern pedagogical trends, to develop teachers' performance and efficiency in teaching.

#### 5. Conclusion

Web Quests promote active learning; they are structured models of teaching based on the five essential elements of introduction, process, assignment, assessment, and conclusion. Web quests provide English language students with helpful websites, including printed materials and audio and video materials, to not waste their time and effort searching for information on the Internet. This is an alternative teaching method that enhances student motivation by providing an alternative assessment of student learning using technology. Hence, it helps teachers realize how students have acquired knowledge and implement it. It enhances teachers' creativity in academic skills and reinforces learners' vulnerabilities through active learning practices. Perhaps the most crucial thing that makes Web Quests more attractive for language learning is that students learn the content as they learn the language. Students learn about different topics (geography, history, arts, etc.) during their multiple and varied readings to understand the content. Thus, this is a

meaningful way to bridge the cognitive and language proficiency gap that beginner and intermediate language students often lack.

## 6. References

- [1] Ahmed, M. (2016). Web Quest and EFL Critical Reading and Writing. *Cultural and Religious Studies*, (4)3,175-184.
- [2] Gooden, A., Cournoyer, Ch. (2015), Habits of Mind: Forging University-School Partnerships to Bring a High-Quality Enrichment Curriculum to English Learners, (s) *Voices in Urban Education*, 41:26-35.
- [3] Marzano, R. J., and Kendall, J. S. (2007). *The new taxonomy of educational objectives*. Thousand Oaks, CA: Corwin.
- [4] Costa, A.(2007), Building Amore Thought- Full Learning Community Welcome to the Institute, [http://with Habits of Mind \(On-Line\).Available for Habits of Mind Institute For Habits of Mind .](http://with Habits of Mind (On-Line).Available for Habits of Mind Institute For Habits of Mind .)
- [5] Segers, and Verhoven. (2009). learning in a sheltered Internet environment: The use of Web Quests. *Learning and Instruction* 19, 423-432. Doi: 10.1016/j.learninstruc.2009.02.017
- [6] Tran, D. (2006). Integrating the Internet in the K–6 classroom: An online self-paced introductory course (pp. 1-71).
- [7] Dodge, B. (1995). Web Quests: A technique for Internet-based learning. *Distance Educator* 1, 10–13.
- [8] Zlatkovska, E. (2010). Web Quests as a Constructivist Tool in the EFL Teaching Methodology Class in a University in Macedonia. *Computer Resources for Language Learning* 3, 14–42
- [9] Salem AAMS (2022) The Impact of WebQuest-Based Sheltered Instruction on Improving Academic Writing Skills, Soft Skills, and Minimizing Writing Anxiety. *Front. Educ.* 7:799513. Doi: 10.3389/educ.2022.799513
- [10] Sen, A., & Neufeld, S. (2006). In Pursuit of Alternatives in ELT Methodology: Web Quests. *Online Submission*, 5(1).
- [11] Wood, P. L., Quitadamo, I. J., DePaepe, J. L., & Loverro, I. (2007). A Web Quest for Spatial Skills. *Science and Children*, 44(8), 21-25.
- [12] Sharma, P. and B. Barrett, 2007. *Blended learning: Using technology in and beyond the language classroom*. New York: Macmillan.
- [13] Julian P. (2018). On The Use of Web Quests And E-Learning in the English as A Foreign Language Classroom, Munich, GRIN Verlag, <https://www.grin.com/document/452268>

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