# LEARNER PERCEPTIONS ABOUT WEBQUEST: A CASE STUDY IN AN ENGLISH AS A FOREIGN LANGUAGE CLASSROOM

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# ABSTRACT


**LEARNER PERCEPTIONS ABOUT WEBQUEST: A CASE STUDY IN AN ENGLISH AS A FOREIGN LANGUAGE CLASSROOM**

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Through the widespread use of the Internet, WebQuest has become one of the popular techniques in a variety of fields of science and arts for teaching different age groups and levels. This study is conducted to research the effectiveness of this approach in English language learning and to determine possible problems in its implementation. Thus, the purpose of this study is to design, develop, and implement this new approach and to evaluate the learners' experiences with it.

The participants of this study were the students of a preparatory school at a state university. Twenty-five learners participated in this study. In line with the scope of the research, a WebQuest site was designed which require learners to complete a task related to the curriculum and learning objectives of their English courses.

Both qualitative and quantitative techniques were employed to assess the learner perceptions about the WebQuest site design, the steps of the process, group work, and the contribution of the application to language learning.

According to the findings of this study, participants appreciated the WebQuest approach and they provided important suggestions for future applications.

Keywords: WebQuest, English language teaching, project-based learning, use of technology in education

# ÖZ


**WEB MACERASINA İLİŞKİN ÖĞRENCİ GÖRÜŞLERİ: İNGİLİZCE YABANCI DİL SINIFINDA ÖRNEK OLAY İNCELEMESİ**

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İnternetin yaygınlaşmasıyla, Web Macerası bilim ve sanatın çeşitli alanlarında, farklı yaş grupları ve seviyedeki öğrencilerin eğitiminde popüler tekniklerden biri haline gelmiştir. Bu çalışma, Web Macerası tekniğinin dil öğrenimindeki etkinliğini araştırmak ve uygulamada karşılaşılabilecek sorunları belirlemek için düzenlenmiştir. Bu nedenle, bu çalışmayla Web Macerası yaklaşımını tasarlamak, geliştirmek, uygulamak ve öğrencilerin bu yaklaşımla ilgili deneyimlerini değerlendirmek amaçlanmaktadır.

Katılımcılar, bir devlet üniversitesindeki hazırlık sınıfı öğrencileridir. Yirmi beş öğrenci bu çalışmaya katılmıştır. Araştırmanın amacına uygun olarak, öğrencilerin müfredat ve öğrenme hedeflerine uygun bir ödevi tamamlamalarını gerektiren bir Web Macerası sitesi tasarlanmıştır.

Web Macerası site tasarımı, işlem basamakları, grup çalışması ve uygulamanın dil öğrenimine katkısına ilişkin öğrenci görüşlerini ölçebilmek amacıyla, hem nitel hem de nicel araştırma teknikleri kullanılmıştır.

Bu çalışmanın sonuçlarına göre, kullanıcılar Web Macerası yaklaşımını beğenmektedirler ve gelecek uygulamalar için önemli önerilerde bulunmuşlardır.

Anahtar Kelimeler: Web Macerası, İngiliz dili öğretimi, proje- tabanlı öğrenme, eğitimde teknoloji kullanımı

To my family and friends

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# CHAPTER 1

# INTRODUCTION

With the availability of the Internet to the public in early 90's, a new digital era started and computers have become indispensable tools for many people from every sphere of life. It is fascinating to see how billions of people are increasingly using computers and the Internet at work and in education, as well as at their homes. In line with the developments in technology and abundant resources provided via the Internet, language learning gained a new curious dimension. Whether backed by research or not, people have started to use computers to help them teach and learn languages. However, there is still need for sound research in the field to move the computer-aided education in the right way (Maddux & Cummings, 2007). Thus, educators need to find effective teaching strategies to integrate these new tools into technology. Otherwise, we can get stuck in the mass of irrelevant work of learning aids prepared casually (Brucklacher, Gimbert, 1999).

In terms of pedagogical purposes, getting use of any media from print through audio to still images and video is more motivating for both students and teachers rather than using more traditional teaching and learning tools (Fiedler, 2002). Technology has brought many facilities such as e-mail, chat rooms, discussion lists, and instant messages to provide contact and communication with the speakers of the target language and also to exchange the documents among the language learners via the Internet. The Internet is a pool of information that any user can access via clicking a button and it is increasingly being used for teaching purposes. Köse (2007) asserted that with the effect of technology, many learning techniques and methods have been adapted to new learning environments to improve the quality in teaching and learning. She further added that as a result, the role of the teacher shifted to guiding students and acting as the facilitator of learning (p.1).

According to Clark (1994), any kind of media is no more than "the truck delivering our groceries". He asserted that it is not media influencing learning but methods and some attributes of media, and different media can provide these attributes in some ways. However, when combined with effective learning strategies and implemented appropriately, using technology –as tools- in education may yield to positive effects such as cost efficiency, improving access to learning via distance education, and providing flexibility where and when to study (Owston,1997). Lindenau (1984) claimed that "we are all in the midst of a microelectronic revolution" and this situation is still valid in today's world. Starting from the earliest tools such as human voice, audio, video recordings, chat rooms, and computers; many of the tools have been incorporated well into language classrooms. He put forward the idea that ignoring the effect of technology can have detrimental effects as it leads to the waste of resources.

WebQuests are computer-based based activities that guide students through the use of web resources (Sharp, 2004). They are becoming increasingly popular and they receive a great deal of attention among educators, students, and academics as well (Maddux & Cummings, 2007). When you hit the word "WebQuest" on Google, it yields over 5.750.000 results. There are many websites for educators to publish their works. Abbitt and Ophus (2008) reported that "a recent search of the WebQuest.org database gives over 1700 user contributed WebQuest activities with all K-12 curricular areas represented, as well as many topics for adult and higher education." (p.441). WebQuests are valuable in education as they combine both interactive multimedia (forums, discussion boards, etc.) and the principles of Cooperative Learning around an assigned task.

WebQuests were first created by Bernie Dodge from San Diego State University. According to Dodge (1995), a WebQuest is "an inquiry-oriented activity in which some or all of the information that learners interact with comes from resources on the Internet". All WebQuests consist of tasks which require students to use their cognitive skills, such as comparing, classifying, inducing, deducing, analyzing errors, constructing support, abstraction, and analyzing perspective (Dodge, 1995).

Other positive effects of using WebQuests can be the increase of student involvement, interest, understanding of content and individualizing learning in line with the principles of Constructivism and Cooperative Learning (Fiedler, 2002). Preparing WebQuests directly related to the curriculum will possibly increase student achievement in their courses.

However, there are still some questions about WebQuests' developmental appropriateness, effectiveness and the way they are being used with the learners (Maddux & Cummings, 2007). WebQuests need to be prepared and adopted considering their appropriateness to the learner characteristics and the support to the curriculum.

### 1.1. Background of the Problem

Although the Internet is widely used by students, many students lack the necessary skills, namely the digital literacy, to select and use valuable information by critically evaluating and intelligently exploiting the web resources (Şen & Neufeld, 2006, p. 49). Thus, an additional aim of this study is to equip students with the ability to use the Internet productively, intelligently and for the benefit of society.

Ezell et al. (2003) claimed that WebQuests can be used at any level in various subjects. However, utilization of technology in teaching was claimed to be low in Higher Education (Green & Gilbert, 1995). Despite being revolutionary in terms of human interaction, it is not clear if the same applies for the use of technology for pedagogical purposes (Salaberry, 2001). Although they are highly popular among practitioners, little research has been conducted to evaluate and improve the efficiency of WebQuest approach (Dodge, 2002). Learner attitudes towards WebQuest strategy are crucial in order to better understand learner needs and shape learning procedure accordingly. Moreover, they can directly affect learning outcomes; thus, they need to be considered in the design process as well (Fisher, 2003). Similarly, Zheng et al. (2005) emphasized the need for the research about learner perceptions as most of the papers in the field focused on WebQuest design and development, so the main focus of this study will be learner perceptions toward learning through WebQuests and their implications.

### 1.2. Purpose of the Study

The purpose of this study is to understand perceptions of 25 students in a prep school of a state university, toward the use of WebQuest as an instructional strategy. Next it is aimed at determining possible problems that both teachers and students can experience in the implementation process. For these aims, a WebQuest project was developed considering several factors such as the age, language proficiency level, and interests of the learners related to the implementation. Through the investigation, conclusions were made about the impact of WebQuests in English language teaching.

### 1.3. Research Questions

The current study focuses on the following questions:

1. What are the learner perceptions about:
    a. WebQuest site design considering General Design, User Friendliness, Grammar, and Technical issues?
    b. the steps of WebQuest project (Introduction, Task, Process, Resources, Evaluation, and Conclusion) and their connection to learning?
    c. working collaboratively in a group or individually in the WebQuest application?
    d. the effects of WebQuest Project on their achievement and performance in language learning?
2. What do learners suggest on the future applications of WebQuest in English language learning?

### 1.4. Significance of the Study

The main goal of this study is to investigate learner perceptions about the WebQuest application. Learner perceptions are important as attitudes are highly related with how students succeed at school (Zheng et al., 2005). Depending on the positive results of similar research, the application of WebQuest strategy can become widespread and thus, it can be a component of the curriculum. Let alone students, many teachers do not know how to create web pages, and some others are little

knowledgeable about technology use (Perkins & McKnight, 2005). Integrating technology in this way can enhance digital literacy of both teachers and learners. Additionally, productive use and integration of technology, which is commonly used in daily life, into education would be possible. Any improvements in teaching and learning will definitely contribute to society.

Another important point about this study is related to the improvements in distance education. If such kind of web related applications increase in number and quality, many students and teachers can benefit from this. Distant learning is becoming common, and more and more students prefer learning on online systems because they have jobs and they can only spare time for learning after work. These applications can provide authentic learning environments for any learner and can be more engaging and motivating (Perkins & McKnight, 2005).

Moreover, integrating technology into classroom teaching is also an important issue since students use the Internet at home a lot. In this way, learners can use their time on the Net more effectively and purposefully. The Internet provides a lot of resources to be used in learning in a cost effective and time efficient manner. Students can submit their homework and assignments on the Net and classroom teaching can be spared for other activities. As an option, students might be required to complete tasks on the Internet in classroom and some parts can be left to be done outside the classroom, so that these activities can be complementary to the classroom teaching.

The points mentioned above can lead to effective integration of technology into education. WebQuest provides flexibility to be combined with other effective strategies such as project-based, problem-based learning and inquiry related strategies. Teachers can create these environments and integrate effective strategies and students can benefit as they improve their skills and that can lead to an increase in their achievement.

### 1.5. Definitions of Concepts and Terms Used in the Study

The terms defined in this section include WebQuest, perception, and EFL.

WebQuest: Dodge (1995), creator of this approach, proposed his own definition for this web-based instructional activity in his paper.

> *"A WebQuest is an inquiry-oriented activity in which most or all of the information used by learners is drawn from the Web. WebQuests are designed to use learners' time well, to focus on using information rather than looking for it, and to support learners' thinking at the levels of analysis, synthesis, and evaluation."*

Perception: Perception is the process whereby people gain mental understanding of their environment through their senses. Perceptions form behavior (Michener, Delamater and Myers, 2004).

English as a Foreign Language: The term can be described as the use of English in non-English speaking settings (Grzega, 2005).

# CHAPTER 2

# REVIEW OF THE RELATED LITERATURE

Since the use of any means of technology, many studies have been conducted to investigate the effective integration of technology into education. As well as disclosing results in favor of technology use, research emphasizes the need for caution about the content, environment, teaching methods, objectives, and learner characteristics of the educational agenda. The use of technology, namely WebQuest approach is investigated in the current study. Therefore, starting with a historical overview of Instructional Technology and related problems encountered, detailed information about WebQuest with different teaching methods is provided depending on the related literature.

## 2.1. A Historical Retrospective of Instructional Technology

Instructional Technology (IT) is the application of any kind of technology – media, computer programs and the Internet- to teaching process. Molenda (2004) defined Educational Technology as "the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources." Despite used interchangeably, Educational Technology is a broader term including Instructional Technology. When talking about the technology in education, we need to consider the pedagogical aims of the curriculum and integrate these considerations into our teaching.

James Finn (1960) argued the fact that technology does not just mean the use of machinery or any tools but "any practical art using scientific knowledge". However, it seems necessary to differentiate between science and technology in this respect. Knezevich and Eye (1970) stressed that in contrast to science dealing with "the pure thought" and "true facts", technology -as "tools, techniques, and processes"- exists to

be used by man to control the nature. Hence, it can be argued that technology is the product or the result of science. Without facts and truths you cannot create technology and being the practical end of science and knowledge; technology can be either harmful or useful depending on the man's considerations (Knezevich & Eye, 1970, p.17). These ideas illustrate how important the objectives are for the use of technology in education or in other areas.

Taking technology as our starting point, we can consider some technologies used in education throughout history. According to Knezevich and Eye (1970), the invention of the alphabet, paper, book, blackboard, TV, and even the school bus affected how the education is organized. In today's world, when someone says "I am an instructional technologist", people may be inclined to think these people, stuck with the computer networks, are designing smart classrooms, videoconferencing, or trying to mechanize the process of learning. At the very extreme end, it might be claimed that the technologists will innovate something to put the knowledge from the books into human brain or one day these computers will replace the teachers and there will be little place for educators in the classroom. However, the key point here is to decide upon how you will integrate the technology into education and whether it will be effective in terms of students' learning. The Carnegie Commission said "technology should be the servant and not the master of instruction" about this issue (Fulton, 1998).

Throughout the history of IT, each new technological innovation was welcomed with a great enthusiasm and considered as a "savior". Teaching and learning in the most effective way at the lowest cost was expected. The film oriented courses in 1920s, instructional radio of 1930s and classroom television in 1950s, used an investment by many private and state funds available to compensate for the urgent need for a practical mean of teaching (Cuban, 1986). However, the results of the studies indicated an infrequent use by teachers, a slight difference between instruction with these tools and traditional methods of teaching, and more use by the lower grades – elementary school-. Research showed that teachers were not so willing to use the technology and if they did, they spared a little part of the school day using technology as an aid, and more frequently in the afternoon (Cuban, 1986). According

to Cuban, the data did not show in which lesson videos were used frequently, what programs were more popular among teachers, and what kind of teachers used them more frequently. Thus, supplementary data and research were needed to make reasonable arguments about the introduction of films, radio, and television to the schools.

The situation was not so different with the computers. One possible reason behind this slow change can be ignoring the emotional content of the classroom between the teacher and the students. The mechanization caused by the swift placement of the computers into education can be against the human nature and development (Cuban, 1986). Another reason is the fact that teachers were not the reformers as indicated by Cuban (1986). Reformers were executives, administrators, funds, even parents were involved and they were the forerunners of the movement. Moreover, teachers usually did not prepare the materials; computer specialists did it (Cuban, 1986). Thus, teachers had to apply something that they were not part of. This situation degraded their roles to a passive, technician mode (Chadwick, 2002). Accessibility of the technology was another point which needs to be clarified. Even though, many schools had computer facilities, it is possible that some teachers were not able to use technology whenever they wanted (Chadwick, 2002).

To maximize the benefits of the technology use in learning, AL-Bataineh and Brooks (2003) suggested that there is a need for staff training, funding, and successful integration of technology into curriculum. They declared that there are three stages of technology integration that can overlap and continue simultaneously in the history of IT. First, named as print automation in 1980s, the Apple IIe computers were used. Computers turned out to be unproductive due to the lack of technical knowledge of teachers, and in other cases due to the inadequate computer resources in terms of number and quality in labs. Considering a class of 25, students used computers once a month so actual use by per student was minimal. Learning was based on behavioral approach of Skinner's depending on rewarding responses and teaching facts (AL-Bataineh & Brooks, 2003). This phase brought the advantages of self-pacing the instruction and focusing on the lack of skills. It was important to include not only the programmers but also the educators in the development process as they were to

experience it. At the end of this phase, cognitive approaches started to be given more attention. In time, research showed that there was an increase in positive learner attitudes towards school and subject matter. However, concerns about the adequacy of technical resources to allow instruction to entire class, teaching basic computer skills and also combining this with teaching objectives remained the same.

Second, from the early to mid-1990s, a shift to learner-centered practices was observed. Learner motivation was reported to increase when students used technology to inquire topics of their interest (Roblyer & Edwards, 2000). Computer lab time was over and learning became more student-centered. There was a problem about choosing the right resources on the parts of students but students gained a lot in productivity and efficiency (AL-Bataineh & Brooks, 2003, p. 477). In the late 90s, there was a focus on data related to virtual learning; however, widespread and appropriate use of the Internet was still a new development. Because of its cost, there was an increased demand of learning benefit. Mobile personal computers started to become available and every school had at least one computer lab. High speed Internet was provided to the use of schools. A challenge related to these improvements was obtaining updated hardware. AL-Bataineh and Brooks put forward that teachers should get continuous training and technology use must be appropriate to the curriculum and theory of learning. They also suggested that adequate numbers of computers must be provided within the classroom.

In the third phase, starting with 2000, developmental appropriateness of technology use to different ages and content areas has become a crucial issue in the field. Depending on the basic problems that were present in the history of technology integration, the points below need to be considered (AL-Bataineh & Brooks, 2003).

- Skills to be obtained by instructors in order to use technology in learning and to update these skills
- Content of the areas and curriculum
- Individualizing learning to student needs
- Appropriate assessment techniques
- Technical assistance
- Financial support for technology use

- Policies and supportive leadership of educational system and administration

### 2.2. What Is a WebQuest Activity and How to Design It?

WebQuests were first created by Dr. Bernie Dodge from San Diego University in 1995. Since 1995, WebQuests have gained increasing popularity and interest in language learning as well as in other fields of education.

Fiedler (2002) provided a working definition of WebQuest.

> *"A WebQuest is an Internet-based activity focusing on a central question. This question is real, relevant, and frequently complex, inviting examination from multiple perspectives and requiring higher-order thinking skills."*

The task given in the WebQuest is ideally a version of something that people do for job outside the school (Starr, 2000, p. 3). So, they can be considered as a small scale version of life outside the schools. As well as being real-life like, the tasks require creative thinking; involve problem solving, analysis, synthesis, and evaluation (Fiedler, 2002).

There are two types of WebQuests as indicated by Dodge (1995) which are *Short Term* and *Long Term WebQuests*. Short Term WebQuests are designed to be completed in less than two or three classes whereas Long Term WebQuests are designed to be completed in a week or a month depending on the task to be completed.

Hassanien (2006) described the principles of a WebQuest by using the following acronym.

- **F**ind great sites
- **O**rchestrate learners and resources
- **C**hallenge learners to think
- **U**se the medium
- **S**caffold high expectations

Dodge (1997) indicated the six attributes of a WebQuest as follows:

1. **Introduction:** It sets the subject and introduces it by providing some information. Introductions are visually appealing and motivating as they relate with the past experiences or future goals of the students.
2. **Task:** The task given needs to doable and engaging for students.
3. **List of Information Resources:** They are necessary to complete the task. Many of the resources –not necessarily all- are included here. Those resources can be anything that is online or physically available in their setting.
4. **Steps of the Process:** The steps of the process that learners are supposed to go through should be clearly described. The WebQuest producer can also give instructions on how to divide responsibility in groups.
5. **Guidance:** Learners should be supported by the design of the WebQuest. Scaffolding tools such as guidelines, directions, guiding questions, concept maps, and timelines can be used.
6. **Conclusion:** This part ends the task and helps the learner to revise what they have learned and motivates them to take the learning beyond the class.

A recent addition to the format of a WebQuest is the **Evaluation** part (Fiedler, 2002). This part describes how the task will be evaluated usually in rubric format. Students can be evaluated individually or as a group.

Dodge analyzed existing WebQuests and he put forward 21 design patterns in WebQuest approach (Dodge, 2001). These are; "*analyzing for bias, imagining an alternative history, clarification of abstract concepts, concrete design experiments, change models, collaborative designs, commemorative decisions and designs, compilation activities, developing exhibits, genre analyses, historical story dramatization, meeting of the minds, mock trials, policy briefings, creating parallel diaries, delivering persuasive messages, making recommendations, creating simulated diaries, travel reports, designing time capsules, and making travel plans."*

## 2.3. WebQuests and Language Learning

WebQuests are unique as they combine effective language learning theories with technology based resources. The aims and parts of a WebQuest have some parallelism with effective learning methods and techniques. Gagné (1985) described important internal and external factors to achieve learning objectives and he made suggestions about how to manipulate the learning environment to meet the ends of learning. According to Fiedler (2002), instructional designers of WebQuest can try to influence the learning environment to attain the learning outcomes in the way Gagné described. For instance, introducing the objectives to the learner and use of an advance organizer- to help in learning verbal information- are in line with the nature of a WebQuest (Fiedler, 2002). Fiedler further claims that Gagné's nine instructional events correspond with the process and components of WebQuest.

Table 2.1. Parallelism between Gagné's Instructional Events with Corresponding Internal Processes and WebQuest Components (Fiedler, 2002)

| **Instructional Event** | **Learner's Internal Process** | **Corresponding WebQuest Component** |
|---|---|---|
| Gaining Attention | Reception | Introduction |
| Informing Learners of the Objective | Expectancy | Task |
| Stimulating Recall of Prior Learning | Retrieval to Working Memory | Introduction and Task |
| Presenting the Stimulus | Selective Perception | Task |
| Providing "Learning and Guidance" | Semantic Encoding | Process and scaffolding |
| Eliciting Performance | Responding | Process |
| Providing Feedback | Reinforcement | Process and collaboration |
| Assessing Performance | Retrieval and Reinforcement | Evaluation |
| Enhancing Retention and Transfer | Retrieval and Generalization | Conclusion |

Cooperative learning is a crucial approach in education especially in foreign language teaching. Several studies showed that students' academic success and social skills increased after completing cooperative group tasks (Stahl, 1994). Gillies and Ashman (2003) asserted that student interactions, task structure and type of task are important factors influencing higher performance in individuals. They also found that structured tasks promoted long term retention and higher-level cooperative tasks improved higher level thinking. Cooperators outperform competitors regardless of age (Johnson & Johnson, 1995). Boling & Robinson (1999) compared individual study, cooperative learning, and interactive multimedia groups of students. According to the results, while cooperative learning was most effective in increasing comprehension, interactive media was found to increase positive attitudes towards learning.

Lev Vygotsky's "zone of proximal development" is highly related to the tenets of cooperative learning which are face to face interaction, positive interdependence, individual accountability, group self evaluation, and interpersonal skills (Doolittle, 1997). These are necessary as the students learn through social environment and later can internalize learning. The components of cooperative learning and Vygotsky's social learning can be embedded into WebQuest approach with an addition of technology use and they are also in line with Gagné's events and ideas. WebQuests foster learning through positive interdependence in terms of learning objectives, interdependence of roles, and interdependence of grading (Fiedler, 2002). Depending on this positive interdependence, students learn from each other parallel to their "zone of proximal development". Fiedler (2002) further claimed that case studies examining the implementation of WebQuest strategy are necessary to improve and may help redefine this approach.

### 2.4. Criticism to WebQuests

Despite the positive results on collaboration and learner attitudes, research in the field suggests little or no direct effect on increasing student achievement when compared to other instructional methods and techniques (Abbitt& Ophus, 2008). Maddux and Cummings (2004) presented WebQuests as in the risk of being an innovation suffering the fate of others which were enthusiastically implemented

without support from research and abandoned later. They further claimed that lack of concern with the age, level, and other learner characteristics, and individual differences is the major weakness of WebQuest strategy (Maddux& Cummings, 2007). Tom March, co-creator of WebQuests also indicated some negative points about the implementation of WebQuests without a sufficient consideration of learning theories underlying it, and he added WebQuests needed to be "real, rich, and relevant" (March 2003, p. 19).

In their article "WebQuests: Are they developmentally appropriate?", Maddux and Cummings (2007) put forward their concern and caution about the developmental appropriateness of the WebQuests that can be found abundantly on the web, and they suggested thoughtful consideration for their effective use in teaching.

Firstly, they criticized Dodge's definitions for Short Term and Long Term WebQuests. Dodge (1997) asserted that Short Term WebQuests which are designed to be completed in one to three class periods have the aim of "knowledge acquisition and integration". Maddux and Cummings (2007) claimed that the aims of Short Term WebQuests are not in line with Dodge's definition of WebQuest (1995), as they do not spare time to use information at higher levels of cognition. Thus, they asserted that Short Term WebQuests are not real WebQuests but only exercises prerequisite to higher level skills used in Long Term WebQuests which allow time and place for those levels in their definition and application. Their main focus was the inconsistencies in Dodge's definitions of WebQuest and its types, which were seemingly trivial but needed attention as they could cause incomplete understanding and ill-formed applications of WebQuests in teaching. However, despite the inconsistencies in Dodge's definition (1995, 1997), Short Term WebQuests can also embed higher levels of thinking depending on the context of the task.

The authors' other main argument was the fact that some of the WebQuests on the Net are prepared for very young children including all grade levels and these very young learners are not developmentally capable of using analysis, synthesis, and evaluation in inquiry-oriented activities. However, Dodge himself, in a (SRI 2003) discussion supported the use of WebQuests with children as young as the third graders and asserted they could be used in all the subjects at any level in school.

Maddux and Cummings (2007) criticized Dodge (1997) as he did not put enough concern into the learner characteristics such as age and cognitive level and they presented this fact as the major weakness of WebQuest approach. They further claimed that WebQuests could be more accurately described as a lesson plan format rather than as an inquiry-oriented activity, the success of which depended on a variety of factors such as the content of WebQuest, motivation, and ability of learners. However, presenting a lesson in WebQuest format does not guarantee that cooperative learning techniques, scaffolding, or problem-based learning will be addressed. Thus, it can be said that WebQuests should be carefully designed considering learner characteristics and individual differences. They proposed the attractiveness of WebQuests as a teaching strategy when compared to the other techniques because of the advantages of technology use and integrating other methodologies. Besides, WebQuests are easy to use with a highly structured format (Maddux & Cummings 2007).

According to Maddux and Cummings (2007), another reason for the popularity of WebQuests is the link to highly respected Constructivism despite the fact that WebQuests do not consider learner's cognitive development at all. They stated that this wrong association stems from the misunderstanding of Piaget (1952) and Vygotsky (1978). They claimed that the common belief about Piaget did not consider social factors and Vygotsky ignored the developmental levels is completely a false one and what they say about the heredity vs. environment discussion is not conflicting; on the contrary, complementary to each other. However, the authors did not suggest abandoning WebQuests but they proposed careful consideration for individual differences about but not limited to age, grade, and cognitive developmental level. Learner interests and other social and cultural characteristics of students can be added to this list. Additionally, they advise that Dodge's (1997) second item in the list of WebQuests' attributes need to be changed from "a task that is doable and interesting" to "a task that is doable, interesting, and appropriate to the developmental level and other individual differences of students with whom the WebQuest will be used" (Maddux& Cummings, 2007).

To provide some answers to the intriguing question "What is developmentally appropriate for students?", they suggested to have a look at the statement of the National Association for the Education of Young Children which defined developmentally appropriate practices for children from birth to age eight (NAEYC 1997). Three dimensions of appropriateness were proposed by Glasenapp (2005) as age appropriateness, social and cultural appropriateness, and individual appropriateness which includes interests, strengths, and experiences of children. For Maddux and Cummings (2007), age appropriateness is the most neglected one in WebQuest approach. They further suggested different resources to understand Piaget's theory and stages of cognition to determine what kinds of tasks are usable for a specific group of learners. Then, they can make modifications for "zone of proximal development" by reading through the best secondary sources of Vygotsky's ideas. The over stated message of Maddux and Cummings (2007) is valuable as there are many WebQuests on the Net designed without careful consideration. It is expected that in the future such criticism will lead to an increase in preparation and appropriate use of WebQuests which are developmentally appropriate to the group of learners they address (Maddux& Cummings, 2007).

Some researchers also indicated the need for a national research agenda to investigate the effectiveness of technology-enhanced methods in education (Robyler & Knezek, 2003; Strudler, 2003). Milson (2002) added that much of the literature is "anecdotal accounts of success" and there is a need for research studies in the field. Although widely used, "their functionality and underlying principles" are not well-understood (Zheng et al., 2005). Dodge (2001) also claimed that some WebQuests are not really representative of this approach and they are just exercises on the web.

### 2.5. Impact of WebQuest on Motivation, Achievement, and Cognition

Abbitt and Ophus (2008) analyzed the impacts of WebQuest approach under three facets, which are student achievement, cognitive level, and motivation. Impacts on learner attitudes, benefits of cooperation, clarification of information, and perception of technological skills generally yielded positive results (Gaskill, McNulty & Brooks, 2006). Murray (2006) found a negative correlation between difficulty of WebQuests and learner motivation. Abbitt and Ophus (2008) asserted that the

positive results in terms of learner attitudes can be due to a preference for non-traditional types of learning which can be considered as less difficult by learners.

The structure of WebQuest can serve as an advanced organizing mechanism to prepare students in EFL (English as a Foreign Language) context to complete readings. WebQuests can have a positive effect on the skills closely related to achievement depending on the positive results about clarification of expectations, identifying key information in resources, and higher beliefs in achievement (Abitt & Ophus, 2008). Kortecamp and Bartoshesky (2003) found out that WebQuest activity fostered collaboration among learners and their perceptions were positive about this collaboration. However, Leahy and Twomey (2005) found that students were sometimes frustrated by collaborating with peers but overall they were aware of the benefits of collaborative learning.

There is limited research in terms of understanding the impact of WebQuest on student achievement and learning (Strickland, 2005; Milson, 2001). Strickland (2005) reported higher scores by the traditional learning group than the WebQuest group. Other studies also indicated no significant difference or an advantage of control group in measures of achievement. On the other hand, Tsai (2006) found higher vocabulary and story reading performance in favor of the WebQuest group in an EFL program. Even if random assignment can be seen as a threat to Tsai's study (2006), this study is important as it provides an example for the gain in learning in a WebQuest activity (Abbitt & Ophus, 2008).

In terms of the impact of WebQuests on cognition, studies usually focused on higher level thinking and inquiry skills ( Abbit & Ophus, 2008). By comparing the quality of postings to online discussion forums Kanuka, Rourke, and Laflamma (2007) stated that WebQuests were more effective in fostering a higher cognitive level of thinking. They grouped the postings into four types of cognitive presence which are Level 1: Triggering Event, Level 2: Exploration, Level 3: Integration, Level 4: Resolution. The postings in Level 2 were most frequent and WebQuest group students scored higher. Popham and Wentworth (2003) reported a significant correlation between problem-solving activities and critical thinking. Abbit and Ophus (2008) claimed that activities integrating problem-solving such as WebQuests

also had the characteristics of critical thinking. However, in a study conducted by Molebash, Dodge, Bell, and Mason (2002), the majority of WebQuests in WebQuest.org database were classified at a lower level of inquiry (Abbit & Ophus, 2008). 20 % of the WebQuests had no component of inquiry, 4 % percent were Confirmation/ Verification, 60 % was Structured Inquiry, 16 % Guided Inquiry and none was rated as Open Inquiry. The authors also emphasized that WebQuests were meant to be structured inquiry in their nature.

Most of the studies in the field are descriptive and there is lack of articles using a research method and studying the effects of WebQuests on teaching and learning. The studies up to now yielded to mixed results and it is difficult to make recommendations for or against the use of WebQuest approach (Abbit & Ophus, 2008). The negative results favoring traditional methods or claiming no difference about student achievement can be because of using inappropriate assessment techniques which are more appropriate to the traditional ways of teaching. To measure the effects of certain technology-based techniques, assessment methods and instruments should be appropriate to the learning objectives of related technologies (Glennan & Melmed, 1996; Conte, 1997). Using WebQuest does not guarantee higher motivation, focus on higher level thinking, nor higher achievement scores as those factors are related to how the activity is designed and presented to the learners.

Hassanien (2006) analyzed learner perceptions in terms of learning through WebQuests, adequacy of effort, and collaborative learning. He used survey and focus group interviews in his study. The WebQuest activity was used to support the formal lecture in Research Methods module of the course. Based on the questionnaire findings, students answered three open-ended questions:

- *What strengths or weaknesses did the WebQuest have with respect to your learning compared with more traditional methods?*
- *Which aspects of the learning experience did you consider most/least interactive and motivating?*
- *What would you suggest to further develop the WebQuest to make it more effective and stimulating learning tool?* (Hassanien, 2006)

In this study, findings supported the effective use of WebQuest approach to improve the quality of teaching and learning (88.2 %). The students agreed that the activity was well-organized (72 %) and they thought they got sufficient support and advice on their progress (79.4 %). Around 20 % were not satisfied with these aspects possibly because time was not sufficient or they did not have enough knowledge about technology use. More training and assistance is suggested to overcome lack of technology experience and fear of change (Faseyitan & Hirschbuhl, 1992). Most of the students also found the Website user-friendly. However, Hassanien (2006) indicated some technical and time-related problems suggest more IT support assistance for learners. As a limitation of this study, he reported that students had to carry out some tasks in the classroom which needed to be done at home because of time limitation, and to ensure more participation, and to provide guidance directly.

Cooper (2004) asserted that there is no positive correlation between participants' engagement and their achievement but their level of performance is highly related to their achievement, so engagement was thought to act as a mediator between skill and performance. Puthikanon (2009) conducted a study of WebQuest in an EFL reading class. The results showed that both higher and lower level English students used their critical thinking skills such as analyzing, synthesizing, and evaluation on the topic of the task. Lower level proficiency students thought the task was more challenging and they had difficulty in transferring their opinions to the end product. In conclusion, it was argued that WebQuest is an effective activity to promote English language use and to improve learners' critical thinking skills in EFL reading courses. Prapinwong (2008) indicated that language learners gained a lot in terms of vocabulary learning according to the results of the tests. Different level students revealed different levels of engagement and reaction towards the task. Castillo (2007) did not find a significant relationship between computer-based authentic assignments and learners' reading, writing and speaking and intrinsic motivation; however, WebQuest was perceived to be very useful to develop the project. Rejection to collaborate in learning, and refusing to speak without notes were interesting findings of the qualitative analysis.

Atchade (2002) grouped distant learners into four categories. *The illiterates* were the first group who thought themselves as illiterates as they did not put much effort to understand the potential of computer technology in teaching. A solution to their apathy to technology can be social interaction which is present in classroom teaching. Or they might have needed a facilitator for learning how to learn. A related question was about the possibility of teaching metacognition –learning how to learn- in distance education. The second group was *Mentees* who were motivated to study with computer technology. They wanted the technology to be designed according to their needs. The third group was *Mentors* and they were highly advanced in using and integrating technology into learning. The last group was *Context Bound* and their reaction to technology was contextual. However, there may not be clear borders among these groups of participants.

Frazee (2004) integrated "jigsaw" method into a WebQuest application. One group was treated with the Jigsaw WebQuest whereas for the other one WebQuest without Jigsaw was implemented. In conclusion, the participants in the without jigsaw group used negative statements about the task but jigsaw group participants were more engaged in the WebQuest task. We can say that integrating effective teaching strategies into WebQuest can yield to more positive results in terms of learner perceptions.

### 2.6. A Case Study in an EFL Classroom

As the last part of the literature review a case study conducted in Eastern Mediterranean University will be presented in detail. This study is important since there are some similarities with the current study in terms of EFL context and use of WebQuest technique.

In their article "In Pursuit of Alternatives in ELT Methodology: WebQuests", Ayfer Şen and Steve Neufeld (2006), used WebQuest approach to improve students' English use connecting it with their departmental subjects via the resources on the Net. The authors are both senior instructors at the School of Foreign Languages in Eastern Mediterranean University (EMU), North Cyprus. They indicated the lack of many students to critically and intelligently use the web despite the increasing

availability and amount of information on the web. WebQuests, first proposed by Dodge (1995), provide a reason for students to do real life tasks about their field and they are motivating and engaging to use. Moreover, this approach helps them improve their digital literacy to use web resources productively (Şen & Neufeld, 2006). In the article, they gave details about the adaptation of two different WebQuests piloted at Faculty of Communications and Media Studies in EMU, where medium of instruction is English in all departments. They emphasized the need for integrating the Internet into teaching and its importance to contribute to the society considering the effect of web on daily life. For the authors, technology does not mean to replace the teacher; instead, it highlights the importance of the teacher. WebQuests present a unique opportunity to integrate a wide range of effective instructional strategies such as collaborative learning, scaffolding, critical thinking, problem solving, constructivism and use of technology. Firstly, WebQuest approach increases student motivation providing real-life tasks and problems to solve. Secondly, they help students improve their critical thinking skills as they analyze, synthesize, and transform the knowledge they acquired. Scaffolding is another contribution as learners are guided through steps completing one after another. Lastly, by collaborating with their peers, students get support and exchange of ideas and information. Şen and Neufeld (2006) indicate the essential components of a WebQuest as an introduction to create curiosity, a clear statement of the purpose of the given tasks and "focus question", list of resources to be used during the task, clear description and stages of the process, explicit evaluation criteria, and an encouraging conclusion.

### 2.6.1. Background to the Case Study

The study was conducted in the Faculty of Communications and Media Studies (FCMS) in EMU and all students either had general and academic English courses before they started to study in their departments or some of them passed the exam and did not take this program. Students at this university are offered EFL courses in their freshman year regardless of their departments. The teachers in this pilot study had basic skills and motivation to incorporate technology into their classes. The authors also indicated that there were four laboratories, two of which had Internet

access. However, in all those laboratories there were no soundcards or headphones on computers (Şen & Neufeld, 2006).

### 2.6.2. Preparation and Implementation of WebQuest Tasks

First of all, search engines were used to find examples of available WebQuests. Despite inspiring from the ones they found on the Net, the authors decided to create a new WebQuest parallel to course syllabus and learner characteristics. Initially, they planned the WebQuest on paper and after the preparation of the website by the designer; FCMS colleagues worked collaboratively giving feedback about user friendliness and other characteristics of the site. As for the second WebQuest, students participated in the preparation process in terms of color, font, and graphics of design. It was decided that each WebQuest was to be completed in a month because of students' heavy schedule with other departmental courses and in order to allow flexibility (Şen & Neufeld, 2006).

One of the major problems in their study was where to conduct the tasks, given the fact that there were not enough computers and the Internet connection for all students to use. So the laboratories were used alternatively to introduce the site, tasks, and guidelines with hands-on experience. However, for the second WebQuest, teachers usually preferred to introduce the project in the classroom using the overhead projector. It was also possible that students communicated with their teachers via e-mail when they encountered any problems or if they liked to submit their work via the Internet. The authors did not provide any information about whether students had access to computers and the Internet in their home or dormitories; however, for other parts of the tasks they were left to study outside the classroom. This information is critical because some students can be affected negatively by this inaccessibility situation.

In WebQuest1, conducted in the first term, students were required to *prepare a print media advertisement* working in pairs and taking different roles as the advertising executive and the graphic designer. In WebQuest2, which was conducted in the second term, student created *a memorable message about the harmful effects of tobacco* for a school boy. They were given three different task choices and this

allowed flexibility for learner differences. Process was central to the evaluation of tasks and also summative evaluation was used as it was appropriate to students coming from an exam-centered system (Şen & Neufeld, 2006). Instead of numbers, stars were used for evaluation by creating "reaching stars" concept. Students were penalized if one group member did not fulfill his responsibility and they did not get full marks, therefore group accountability was provided but some teachers preferred not to penalize students and they made some changes in the evaluation.

### 2.6.3. Method and Evaluation of Results

Şen and Neufeld (2006) measured the effectiveness of WebQuest (WQ) approach with a questionnaire they prepared and administered at the faculty where the tasks were conducted. The questionnaire was available both in Turkish and English to get accountable results. For WQ1, 43 students; for WQ2 34 students and overall five teachers participated in the study. For WQ1, both students and teachers were positive about its relevance to FCMS and EFL courses. As for WQ2, students were neutral and teachers were negative about its relevance. Teachers claimed that WQ1 was more meaningful but WQ2 was irrelevant. Instructions and timing were parallel for both WQs; however, the only difference was in the first WQ, the instructions were given in laboratories whereas in the second one, the instructions and explanation were provided in classroom because of the inadequacy of technical facilities. Thus, it can be said that students need clear visual explanation, instruction, and illustration about the tasks. There were some other technical problems in the application of WQ2 task. Most of the students could not open the site of the task due to an unexpected problem in Microsoft Internet Explorer which required users to download Java plug-in. Besides, students could not communicate with their teachers appropriately because of lost mails related to the problems of external e-mail services. Another explanation for the negative perceptions about WQ2 other than the technological problems can be the novelty effect which diminished when WQ2 conducted in the second term (Şen & Neufeld, 2006).

Overall, their study is crucial in literature as it provides some insight into the effective integration of WebQuests into an EFL classroom. They provide

implications for the use of WebQuest approach considering technical mediums, learner characteristics, process evaluation and each step of the process wisely.

## 2.7. Summary

WebQuests are authentic learning tasks which require problem solving, analysis, synthesis, and evaluation. They can be applied in a few classes or in longer terms. Especially, integrating the tenets of Cooperative Learning into WebQuests can increase learners' communicative skills. Interactive media can increase positive attitudes towards learning as indicated by Boling & Robinson (1999). It also enhances positive interdependence, group evaluation skills, and individual accountability.

As indicated by Maddux & Cummings (2007), learners' age, level, and other characteristics need to be taken into consideration before developing an application or choosing the right one. Another issue about the effect of web based applications on achievement is about assessment. Assessment techniques which are appropriate to evaluate the objectives of technology based techniques can be employed.

WebQuests can have a positive effect on vocabulary, reading, and other language learning skills in EFL context. However, it can be said that using technology does not guarantee higher motivation or achievement but it depends on the design and the presentation of activities to the learners.

To sum up the related literature, WebQuest might be an effective method of teaching. It has many advantages when combined with other approach and methodologies such as Problem-Based Learning and Communicative Approaches. It also gives the opportunity to provide learners with a variety of visual and audio materials. This technique could be used effectively in language classrooms to improve student achievement and performance. The current study investigates this possibility by considering learner perceptions as they are highly related to how learners succeed at school. In order to understand the factors that affect learner perceptions thoroughly and to overcome the problems related to the application of WebQuest approach, there is a need for sound and guiding research in the area.

# CHAPTER 3

# METHODOLOGY

This research aims to explore the perceptions of language learners about the WebQuest site design, the steps of the WebQuest project and general thoughts about the effects on learning outcomes and motivation. Information about the participants, instruments, research model, and assumptions will be provided in this chapter of the study.

## 3.1. Participants and Sampling

Participants of this study were the students at the preparatory school of a state university. Twenty-five students aged around 19 –between 18 and 24- were all classmates. All of the students in this classroom participated in the study. There were 16 (64 %) female and nine male students (36 %). Twenty of 25 students have personal computers at home; 21 students have been computer users for more than four years, and four others have been using computers for three to four years. Of all students, 16 have home Internet access while two of them can only have Internet access at cafes. Others use the Internet at home, school, dormitory, or cafe and their combinations. Ten students spend two to three hours on the Internet every day. Seven students use the Internet more than three hours and six others use it less than an hour daily.

The participants of the present study were in different departments ranging from Engineering to Management (Table 2). They had started preparatory school as elementary level students of English in September 2010 and their English language proficiency has increased since then until April and their level of English was assumed to be Intermediate and perceived as intermediate by 23 of 25 students. Only two students considered their language level as Elementary. Convenience sampling

method was used for the study considering the availability of the participants to the researcher. This case study was preferred to collect profound information and to show what might be important to study in the future research. As the study was a case study, no pilot study was conducted. However, the system and measurement tools were checked by other two students who were not to participate in this study. The study was conducted in the spring semester of the academic year 2010-2011.

Table 2 Departments of Participants

| Department | Number of Students |
|---|---|
| Computer Engineering | 1 |
| Physics Engineering | 2 |
| Food Engineering | 1 |
| Chemical Engineering | 1 |
| Marine Engineering | 1 |
| Geophysical Engineering | 3 |
| Geological Engineering | 2 |
| Theology | 2 |
| International Relations | 2 |
| Labor Economy | 4 |
| Physical Education | 2 |
| Journalism | 1 |
| Management | 1 |
| Public Administration | 1 |
| Biology | 1 |

All students of the same institution are given a language proficiency test according to the regulations of their institution and placed into different levels of English when they register at School of Foreign Languages at the beginning of the fall term (A1-Beginner, A2-Elementary, B-Intermediate, and C-Upper Intermediate/Advanced). They mainly have two different courses throughout the year. One of them is the Main Course which aims to cover the main skills of English (Reading, Writing, Listening, and Speaking) and sub-skills which are Grammar and Vocabulary. The other course, Integrated Course, supports students' learning with extra reading, listening, writing,

or speaking materials. The researcher was the instructor of Main Course in this classroom. The preparatory program lasts for about 32 weeks in two semesters.

### 3.2. Instruments and Data Collection

By combining methodological approaches, higher levels of validity and reliability can be achieved (Hassanien, 2006). For the purposes of the study, following "methodological eclecticism" or "mixed method" (Hammersley, 1996, p.168), both qualitative and quantitative techniques were employed. Survey and focus group interviews were the instruments of the study. Methodological triangulation technique was used to cross-check data from different sources to come up with regularities in the research data (O'Donoghue & Punch, 2003).

The Effectiveness of WebQuest Project Questionnaire and nine open-ended questions were used in the quantitative part of the study. Open-ended questions were also used in the focus group interviews to gather detailed information. The Questionnaire was adapted from Köse (2007). Some adaptations were made according to the needs of the study. These changes concerned the perceptions about the contribution of the WebQuest project to language learning process.

Quantitative method was used to answer research questions concerning learner perceptions about the WebQuest site design, the steps of the WebQuest project, and working collaboratively in a group or individually and the effect on language learning performance. The first part of the questionnaire included ten items to gather demographic information of participants. There were 22 items in the second part of the questionnaire consisting of nine items for general design, four items for grammar, four items for navigation and user friendliness, and five items for technical problems. In the third part, there were 22 items in total- four items for Introduction, four items for Task, four items for Process, four items for Resources, three items for Evaluation, and finally three items for Conclusion. The last part of the questionnaire consisted of 22 items. Sixteen were about working collaboratively in a group or individually and six were about their achievement in Foreign Language Learning. The items in this study were coded as Strongly Agree (5), Agree (4), Neutral (3), Disagree (2), and Strongly Disagree (1) (Appendix A).

The participants were asked eight open-ended questions to collect detailed information in the qualitative part (Appendix B). These questions generally focused on learner suggestions to improve the WebQuest application.

Expert opinions were taken to ensure the content validity of the survey. Three experts, one of whom was a Turkish Language academician, checked the validity of the questionnaire as the measure was prepared in Turkish. Participants answered these questions in paper-based format in the classroom. These open-ended questions were also used in the focus group interviews and the data was recorded by a voice recorder and transcribed in the analysis process. No pilot study was conducted due to the fact that this was a case study and it may influence the results of the study if the same group is involved in the real implementation.

### 3.3. WebQuest Site

A WebQuest application was created using ASP.NET, and C#. Visual Studio 2010 Express Edition Environment was chosen as development environment because of its ease of use and availability. The aim of this project was to direct students into a discussion about the effects of *watching TV*. A scenario was provided for students to write a paragraph as an end product of the task. In terms of language learning, this WebQuest sought to improve students' reading and writing skills. Moreover, the target learners were exposed to new vocabulary with different authentic web-based materials, and they had the chance to practice the grammar rules and vocabulary they had already learnt. The URL of the website was http://myenglishwebquest.com. Two different types of users could login this application: Administrator/Teacher, and Students. The teacher could create and add new users to the system. She could assign different roles to the students and change student groups and roles. Furthermore, she could see each student's performance in different steps of the process or as a whole on one page. Students could login the website using their names as the user name and the given passwords. They could change these passwords later if they preferred. Learners could save their answers, join an online discussion, post messages, and write paragraphs on the site. They could view other group members' messages and paragraphs as well. A Facebook group was created by the researcher/ instructor to provide students with instant help and guidance. The

teacher and almost all students already had Facebook accounts before the project. Learners could discuss about each steps of the process either in English or in their native language and they could ask the instructor and their peers any questions about the details of the study. In this way, nearly no time was allotted for the project in the classroom. The teacher could be provided any technical support for the technical and security related problems. Any teacher whose objectives and learner profile are appropriate can use this WebQuest in their language classrooms if they have basic computer literacy. Similar sites can also be created using the model provided. The content of the website is shown in the screenshots below:

### 3.3.1. Student Interface

Introduction, Task, Process, Evaluation, and Conclusion pages which show different steps of the web application are prepared for learner use. More information about each page will be provided with screenshots.

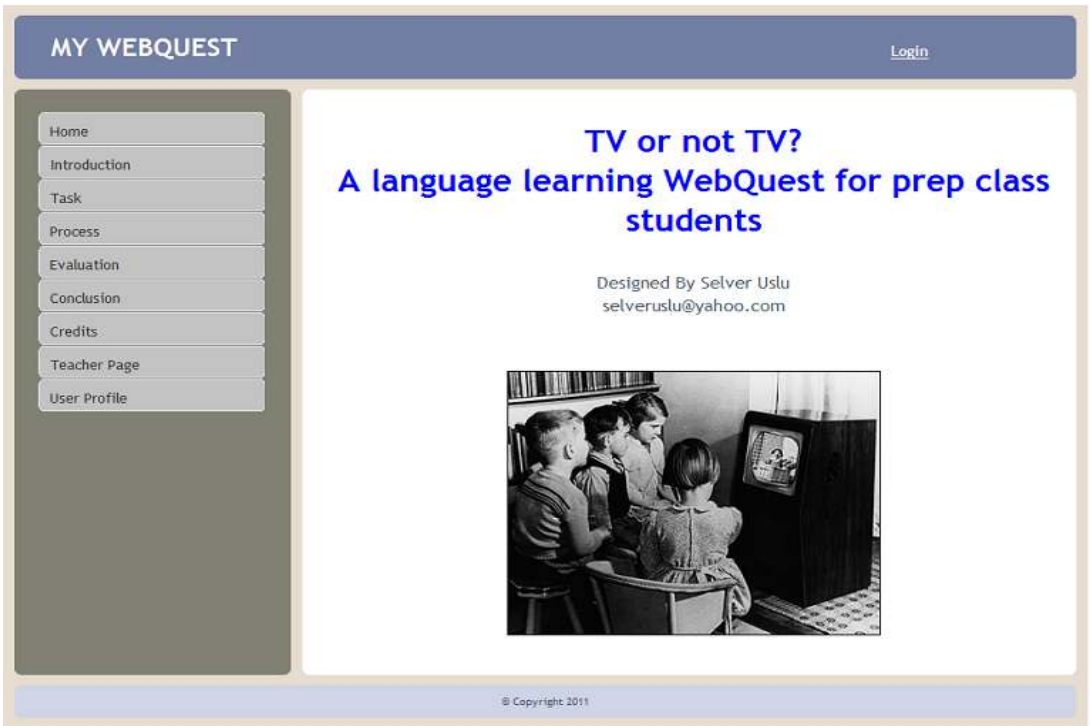



Figure 1 Home Page of WebQuest Application

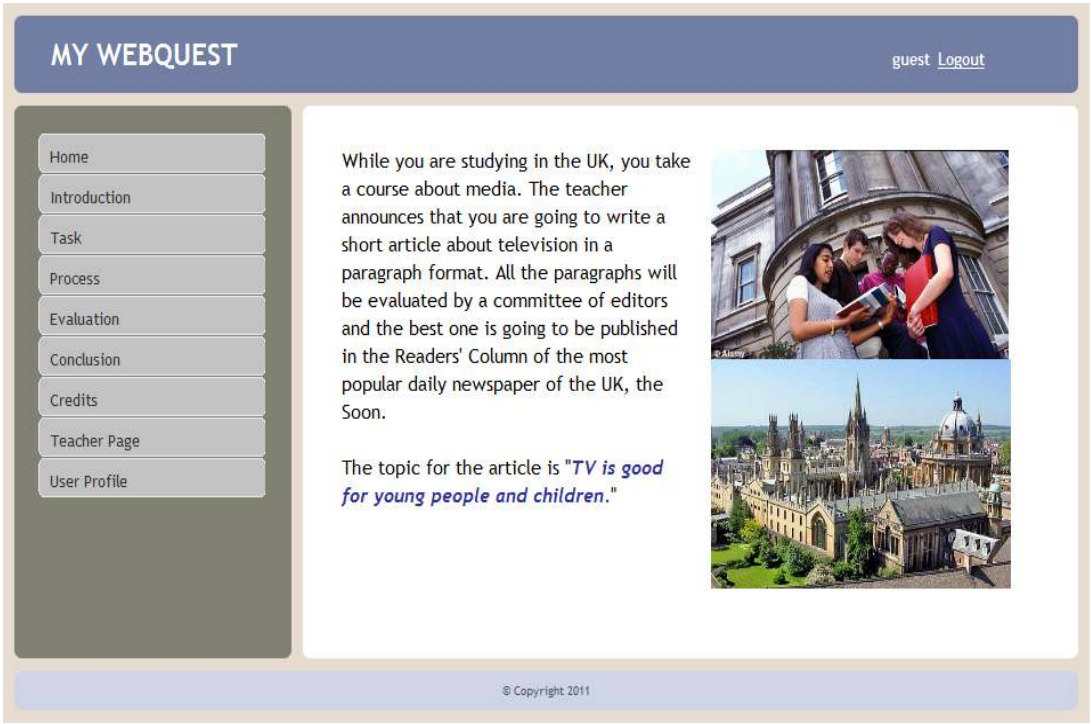


Figure 2 Introduction Page

**Introduction:**

While you are studying in the UK, you take a course about media. The teacher announces that you are going to write a short article about television in a paragraph format. All the paragraphs will be evaluated by a committee of editors and the best one is going to be published in the Readers' Column of the most popular daily newspaper of the UK, the Soon. The topic for the article is "***TV is good for young people and children.***"

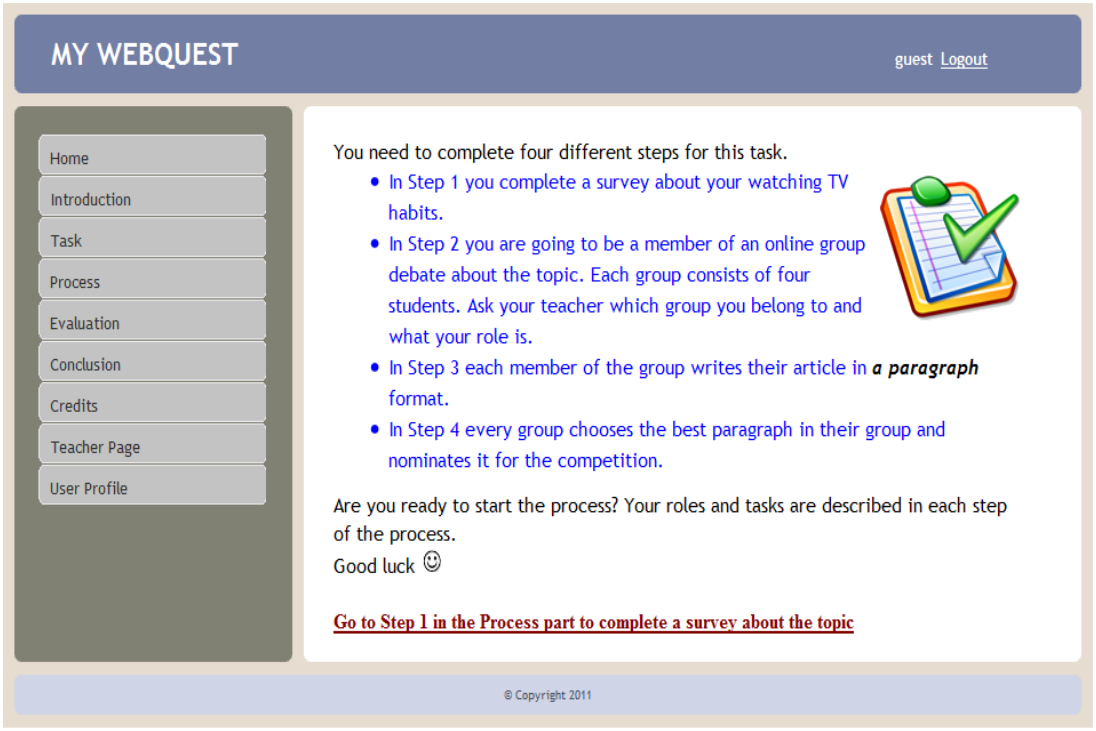


Figure 3 Task Page

**Task:**

You need to complete four different steps for this task.

- In Step 1 you complete a survey about your watching TV habits.
- In Step 2 you are going to be a member of an online group debate about the topic. Each group consists of four students. Ask your teacher which group you belong to and what your role is.
- In Step 3 each member of the group writes their article in ***a paragraph*** format.
- In Step 4 every group chooses the best paragraph in their group and nominates it for the competition.

Are you ready to start the process? Your roles and tasks are described in each step of the process. Good luck ☺

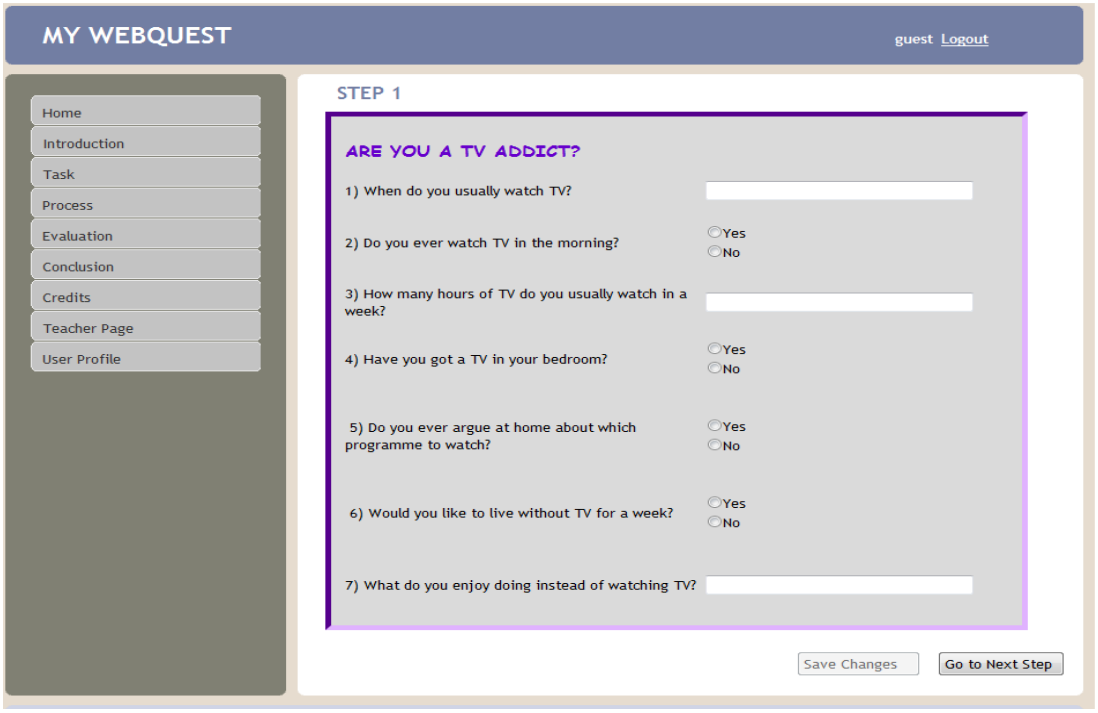



Figure 4 Step 1 of Process

**Process:** The steps of the process are shown below.

**Step 1:**

**ARE YOU A TV ADDICT?**

1) When do you usually watch TV?

2) Do you ever watch TV in the morning? Yes/No

3) How many hours of TV do you usually watch in a week?

4) Have you got a TV in your bedroom? Yes/No

5) Do you ever argue at home about which program to watch? Yes/No

6) Would you like to live without TV for a week? Yes/No

7) What do you enjoy doing instead of watching TV?

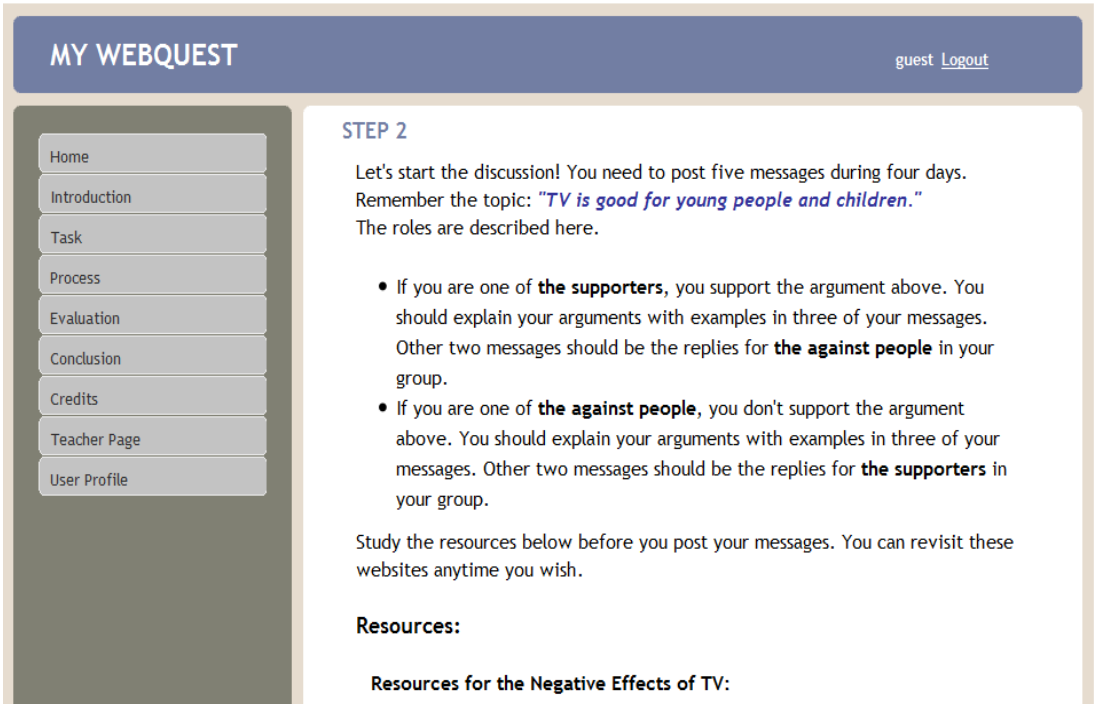



Figure 5 Step 2 of Process

**STEP 2**

Let's start the discussion! You need to post five messages during four days. Remember the topic: ***"TV is good for young people and children."*** The roles are described here.

- If you are one of **the supporters**, you support the argument above. You should explain your arguments with examples in three of your messages. Other two messages should be the replies for **the against people** in your group.
- If you are one of **the against people**, you don't support the argument above. You should explain your arguments with examples in three of your messages. Other two messages should be the replies for **the supporters** in your group.

**Study the resources below before you post your messages. You can revisit these websites anytime you wish.**


Figure 6 Resources in Step 2

**Resources:**

**Resources for the Negative Effects of TV:**

Television and Children

How TV Destroys Your Mind

The Effects of Television Violence

Negative Effects of Television

Negative Health Effects of Television

**Resources for the Positive Effects of TV:**

The Good Things About Television

TV Can Be Good for Kids

Positive Effects From Watching Television

Positive Effects of TV

Positives of The Idiot Box

**Resources for both Positive and Negative Effects of TV:**

How TV Affects Your Child

The Social Impact of TV

Television and Its History

**Video Resources:**

How Television Affects Your Brain Chemistry

Kill Your TV

Cartoon Violence

Effects of TV Commercial on Young Generation

TV is Good For Me - Animation

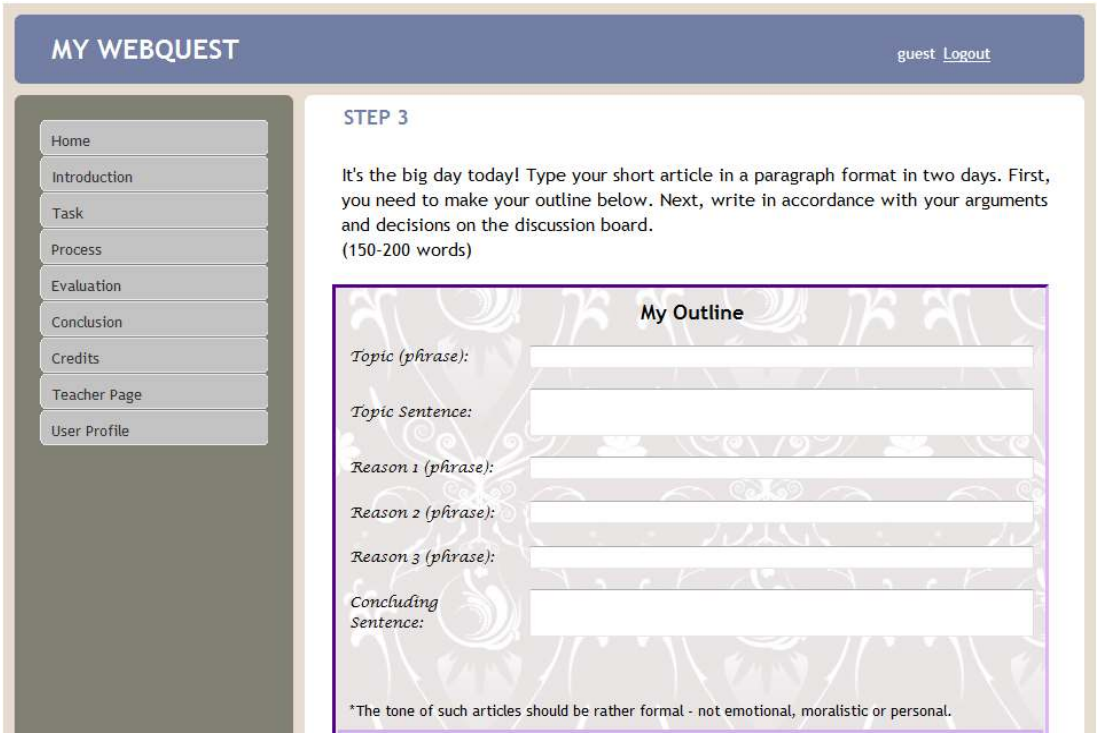



Figure 7 Step 3 of Process

**STEP 3**

It's the big day today! Type your short article in a paragraph format in two days. First, you need to make your outline below. Next, write in accordance with your arguments and decisions on the discussion board (150-200 words).

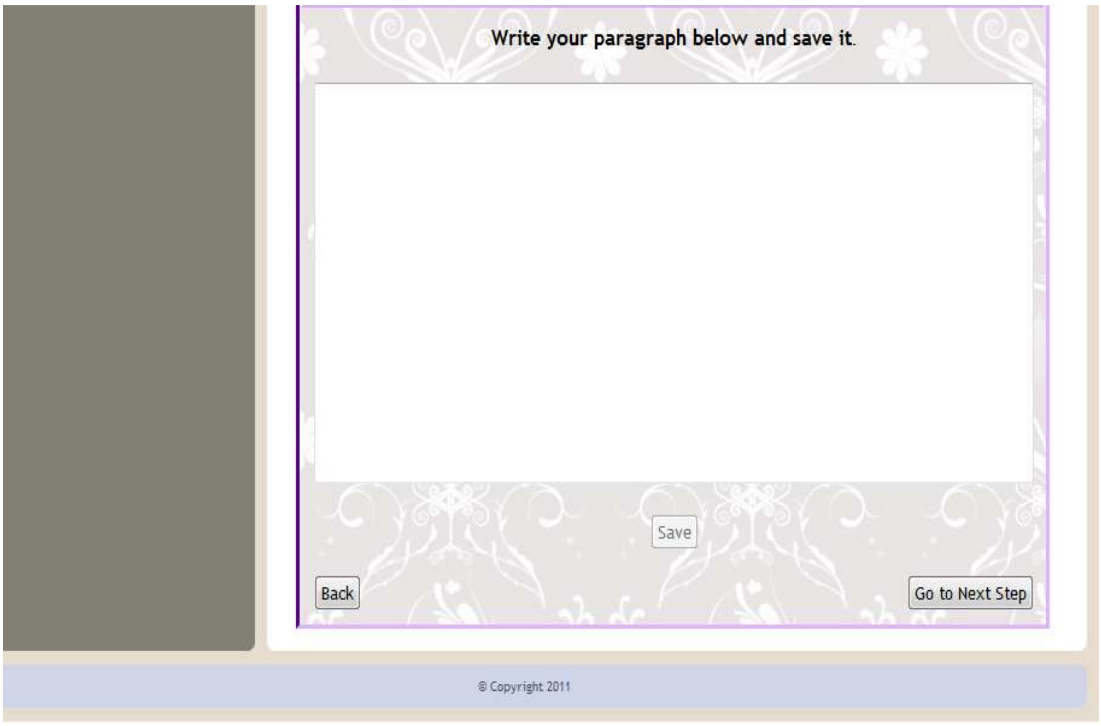



Figure 8 Step 3 Paragraph Writing

In this part students were required to write their paragraph according to the given format. The total number of the words in their paragraph must be between 150 and 250. A topic sentence and at least three supporting sentences and a concluding sentence needed to be included. Paragraph writing is an important part of the writing classes and students are asked to write a similar paragraph on a different topic in proficiency exams.

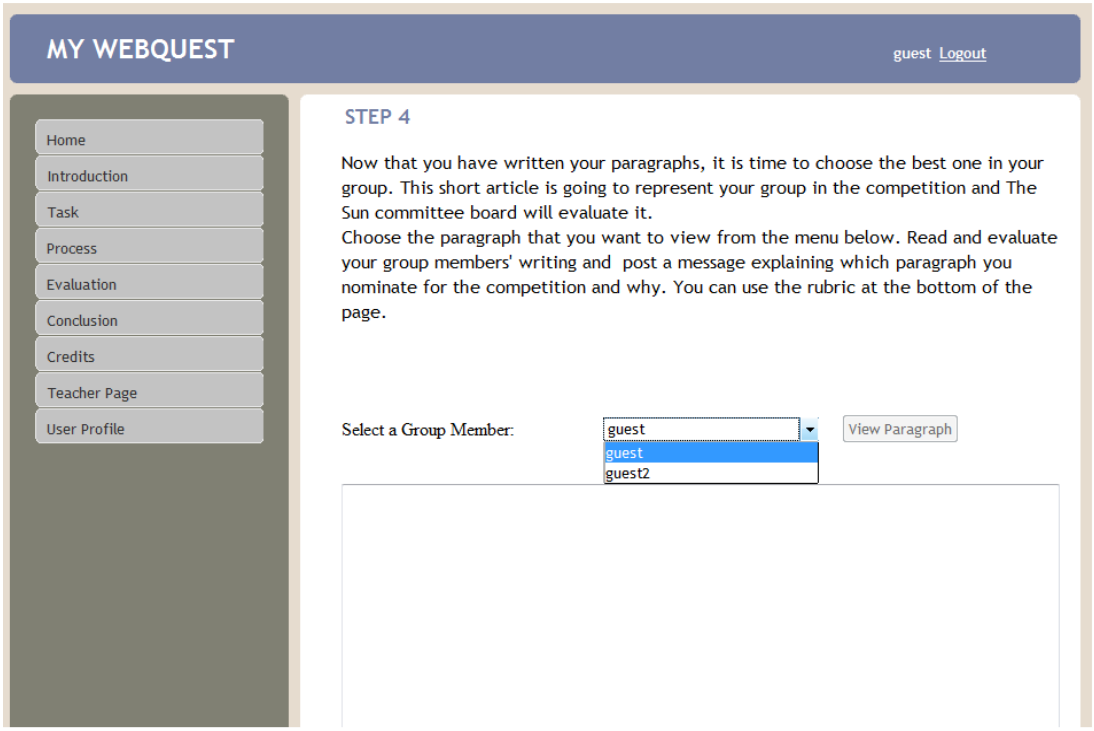
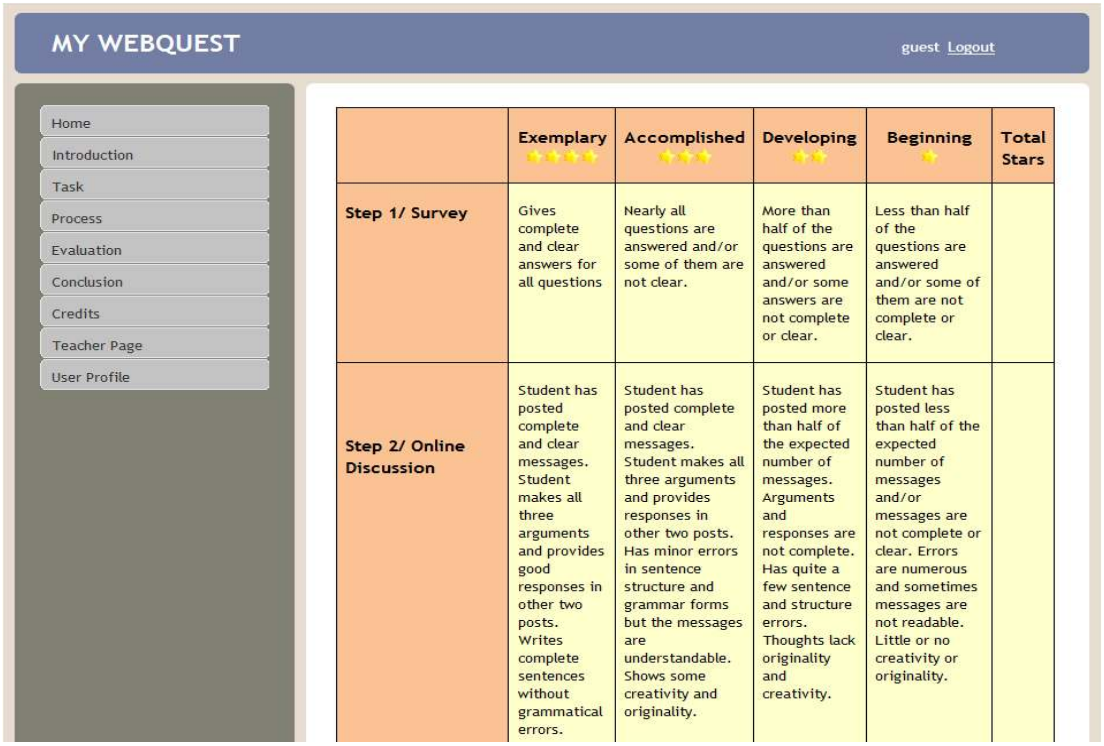



Figure 9 Step 4 of Process

**STEP 4**

Now that you have written your paragraphs, it is time to choose the best one in your group. This short article is going to represent your group in the competition and The Soon committee board will evaluate it.
Choose the paragraph that you want to view from the menu below. Read and evaluate your group members' writing and post a message explaining which paragraph you nominate for the competition and why. You can use the rubric at the bottom of the page.




| | Exemplary | Accomplished | Developing | Beginning | Total Stars |
|---|---|---|---|---|---|
| **Step 1/ Survey** | Gives complete and clear answers for all questions | Nearly all questions are answered and/or some of them are not clear. | More than half of the questions are answered and/or some answers are not complete or clear. | Less than half of the questions are answered and/or some of them are not complete or clear. | |
| **Step 2/ Online Discussion** | Student has posted complete and clear messages. Student makes all three arguments and provides good responses in other two posts. Writes complete sentences without grammatical errors. | Student has posted complete and clear messages. Student makes all three arguments and provides responses in other two posts. Has minor errors in sentence structure and grammar forms but the messages are understandable. Shows some creativity and originality. | Student has posted more than half of the expected number of messages. Arguments and responses are not complete. Has quite a few sentence and structure errors. Thoughts lack originality and creativity. | Student has posted less than half of the expected number of messages and/or messages are not complete or clear. Errors are numerous and sometimes messages are not readable. Little or no creativity or originality. | |

Figure 10 Evaluation Page

**Evaluation:** The evaluation chart is shown in Figure 10. The criteria were grammar correctness, paragraph writing organization, and creativity. This part of the WebQuest is important since students feel more comfortable when they know how their work is evaluated.

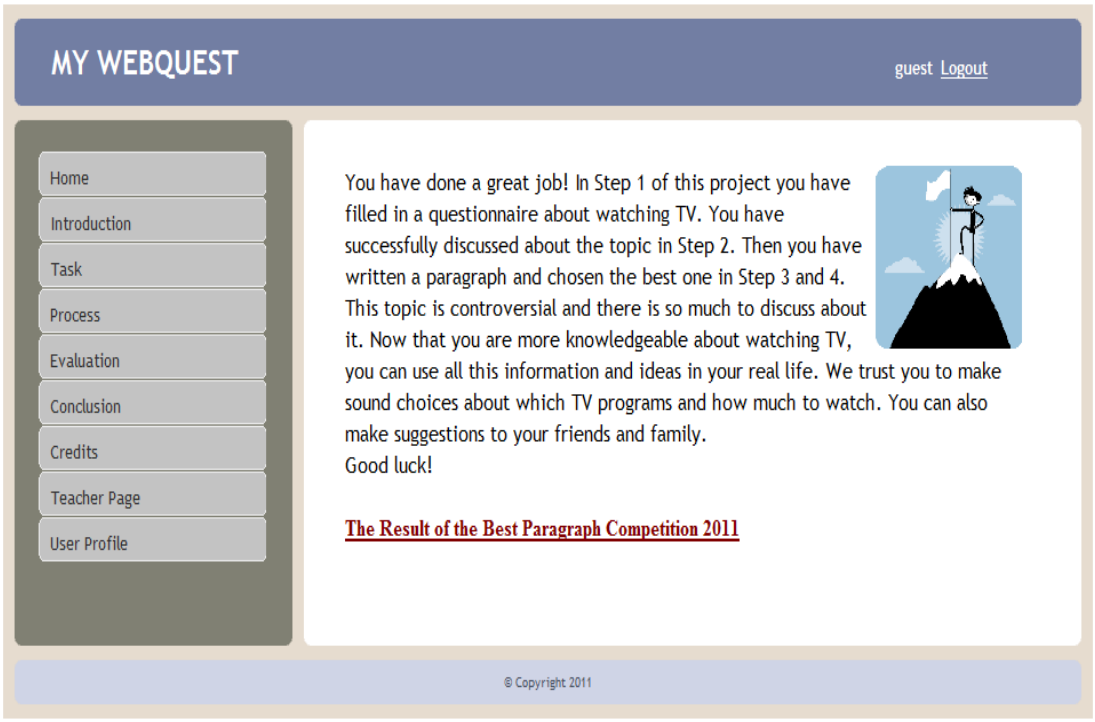



Figure 11 Conclusion Page

**Conclusion:**

You have done a great job! In Step 1 of this project you have filled in a questionnaire about watching TV. You have successfully discussed about the topic in Step 2. Then you have written a paragraph and chosen the best one in Step 3 and 4. This topic is controversial and there is so much to discuss about it. Now that you are more knowledgeable about watching TV, you can use all this information and ideas in your real life. We trust you to make sound choices about which TV programs and how much to watch. You can also make suggestions to your friends and family.

Good luck!

THE SOON NEWSPAPER

CELEBRITY NEWS WORLD EXCLUSIVES

The committee announces the results of the Best Short Article Competition 2011

The jury have made their decisions about the best short article. This year, the readers wrote about a controversial topic, "TV or not TV?". The head of the jury, Mori Smith said "This year the competition was quite harsh and we had difficulty in choosing the best one as there were more than one. However we can say that the winner really deserves this title."The winner is [redacted] She is a Turkish student at university. Miss Didem preferred to keep silence and mystery but we found a photo of hers with friends. Maybe this young celebrity is experiencing the difficulty of being famous. You can see the best reader article of the year below:

*TV is good for young people and children. I support this argument. Firstly, if children and young people watch good educational programmes on TV. They can learn many new things very easily. Moreover, news, current events and historical programming can help make young people more aware of other cultures and people so people can be conscious individuals. Secondly, it is important to choose the right TV programmes for the age of the child. This way they can learn useful things. Furthermore ,the right shows can help them develop their imagination. For example; they should watch cartoon. Thirdly, through media, kids can explore places, animals, or things that they couldn't see otherwise. Most kids are not able to visit the rain forest or see a giraffe in the wild, but many have seen these things on TV.I think this feature of television is very useful for children and young people. Also, if children and young people don't spend more time on the TV ,TV can be very useful. Of course, there are harmful programs on the TV but if families prohibit of harmful programs, children don't watch these programs. As a result, I think benefits are greater than the damages of TV.*

Figure 12 Results of the Competition

As a part of the scenario students were told to be in a competition with other groups. The group which submits the best paragraph to the committee was to be announced and this paragraph was to be published in a newspaper.


Figure 13 Social Network Group

A Facebook group was created to provide immediate feedback to the participants. Students used this group to communicate with the instructor and also with other members. Students' surnames and other information are covered in Figure 13 for reasons of privacy.

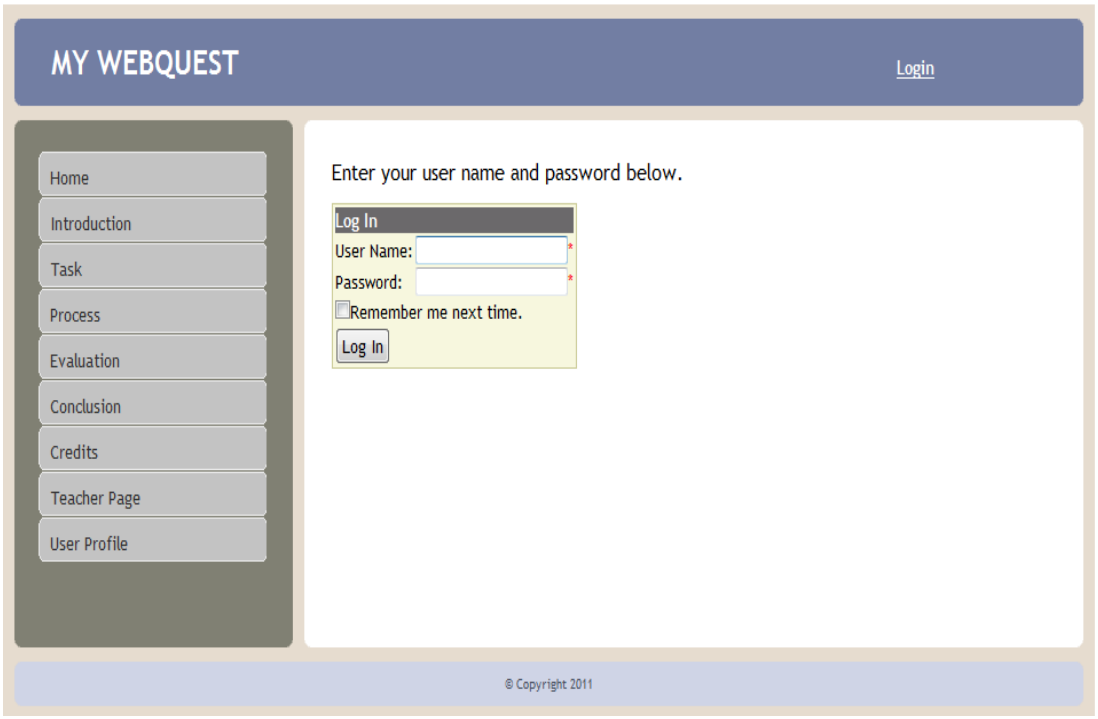



Figure 14 Login Page

Two types of users could login the system: The teacher/ administrator or students. A username and password is required to login. The password could be changed later.

### 3.3.2. Instructor Interface

A different interface was prepared for teachers that can be logged in using the username and password. Create User, Student Groups, Step One Answers, Discussion Board, Paragraphs, Paragraph Evaluation Board, Student Evaluation Board, and Teacher Page are the pages presented on this interface.

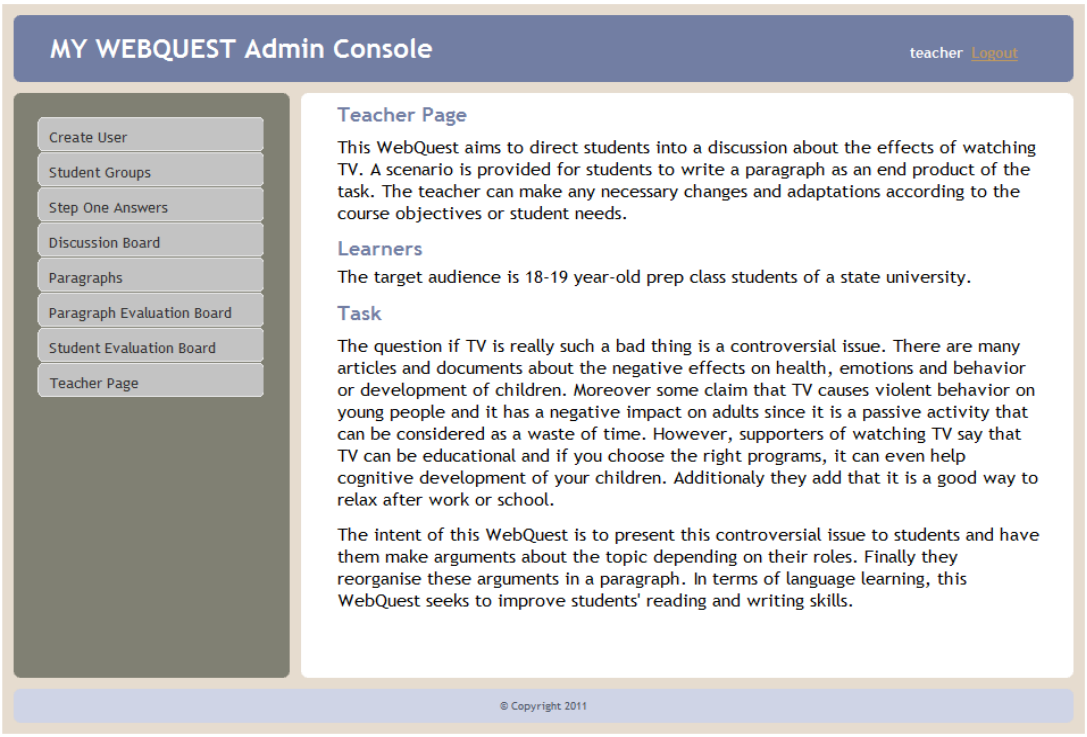



Figure 15 Teacher Page

The teacher page provides information about the target learners, the objectives of the WebQuest project and the task. Any people interested in using this application can use it if it is appropriate to their educational agenda.

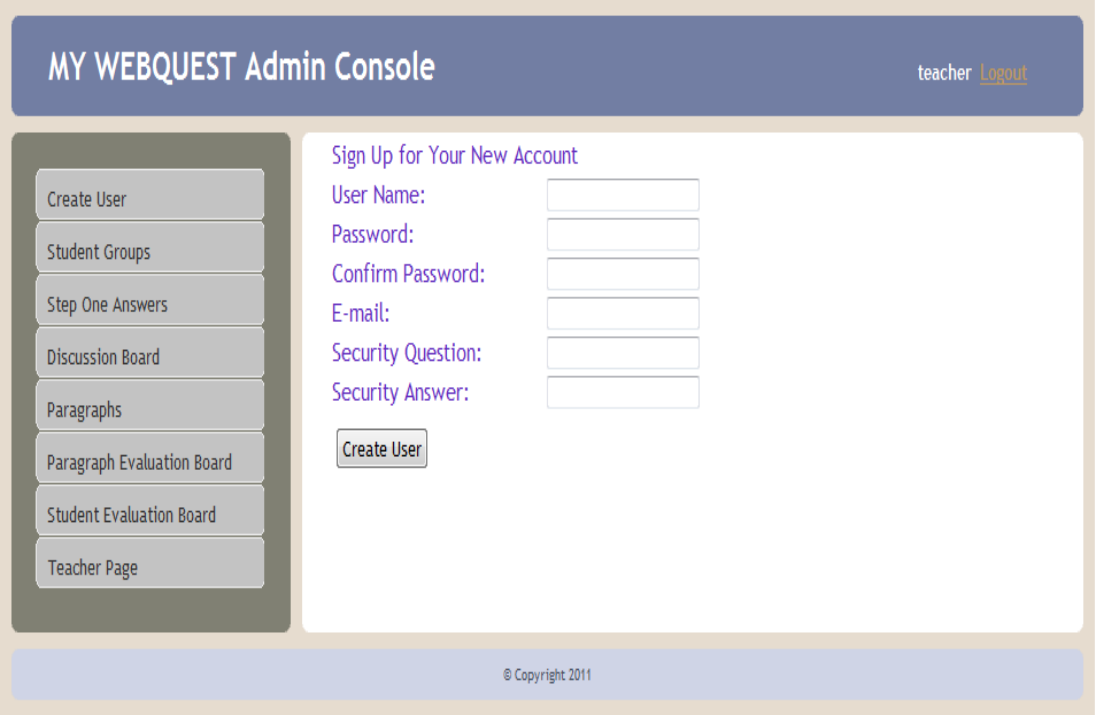



Figure 16 Screenshot for Creating a User

By using this page the teacher can create new students for their classes. The Teacher can write the user name for each student and assign them passwords to use the database. The passwords provided by the teacher can be changed by the students later if preferred.


Figure 17 Student Groups

New groups can be added and existing groups can be deleted on this page. The teacher can assign a role and group to students on this page. A list of the students showing their roles and groups they belong to can be found on this page. Student names are covered for reasons of privacy.

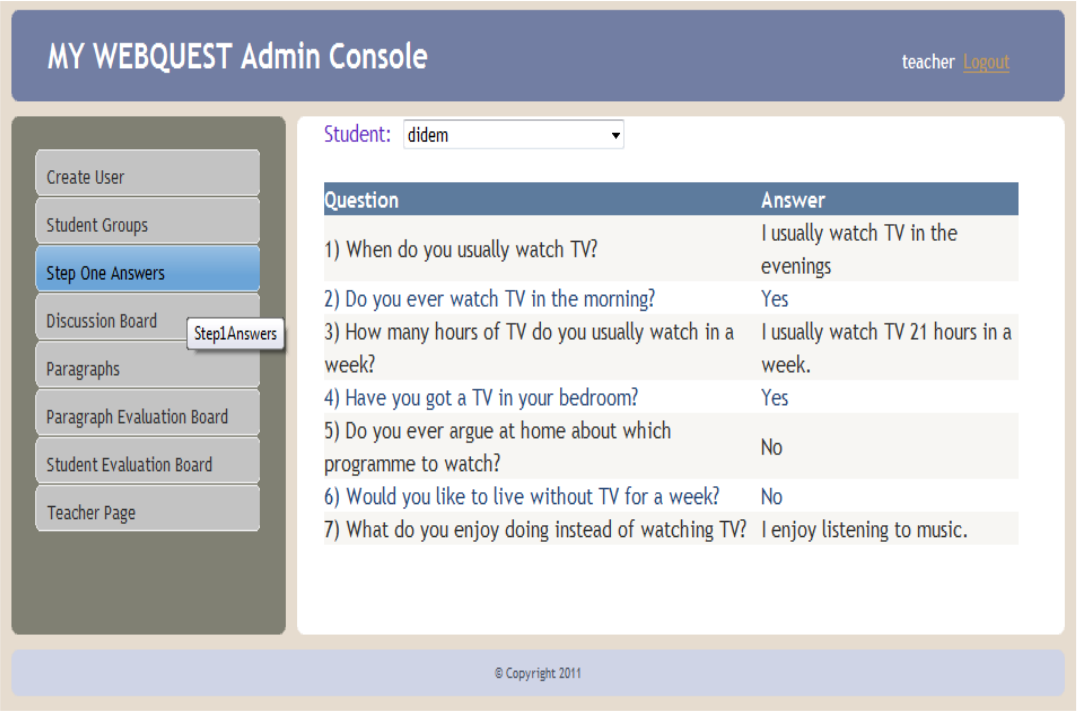



Figure 18 Student Answers for Step 1

Students' answers for Step 1 of the Process can be viewed on this page. By clicking on the student name from the drop down menu, the teacher can see each student's answers for the task.

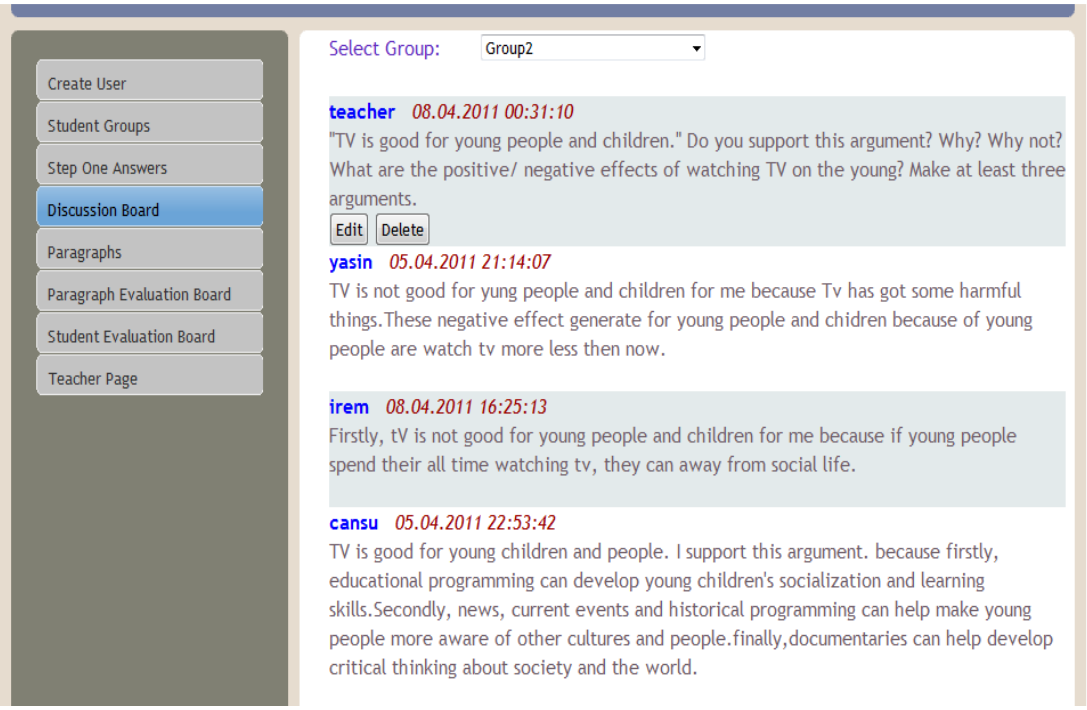



Figure 19 Discussion Board

The posts on the discussion board can be viewed on this page. The teacher can also join the discussion to guide the learners throughout the process. The messages that have been posted can be edited or deleted completely to make necessary changes or to be changed with a new message.

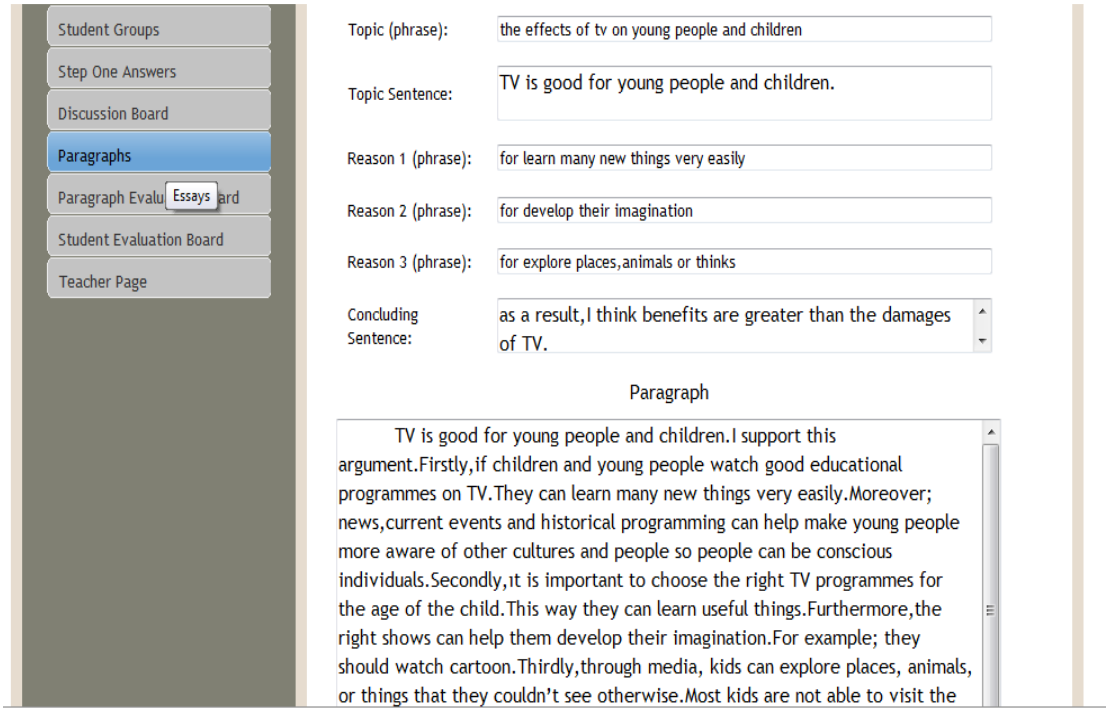



Figure 20 Student Paragraphs

Paragraph written by the students can be viewed on this page including their outline. By choosing the student name from the drop down menu, the teacher can view all students' work.


Figure 21 Paragraph Evaluation Board

In this part students' posts related to which paragraph they nominate can be found. By choosing the group name from the drop down menu, the teacher can see which paragraph is nominated in each group and the reasons why they are chosen.

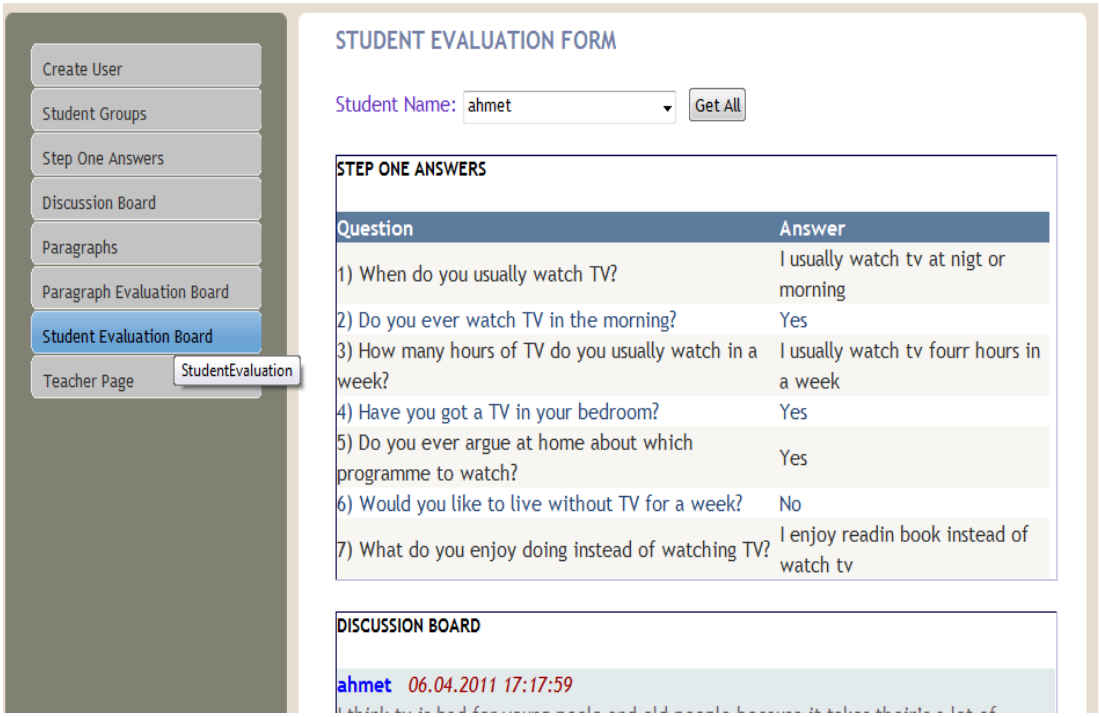



Figure 22 Student Evaluation Board

Each student's answers for all the steps and their related performance on tasks can be viewed on this page. This page is prepared to make evaluation easier and more effective.

### 3.4. Research Model

A case study was conducted in the preparatory class of a state university in Ankara, Turkey. Both qualitative and quantitative measures were employed to reach comprehensive results about the perceptions of language learners towards WebQuest applications. The WebQuest application data gathering process lasted two weeks, during 2010-2011 academic year, spring semester. Questionnaire part was implemented in classroom but focus group interviews took place before or after the class hours. The instruments were checked by three different academics for content validity and also feedback from two students from another classroom was taken into account for the validity from students' perspective. The researcher used a WebQuest page appropriate to the needs of students and objectives of the language course.

#### 3.4.1. The Implementation of "TV or not TV?"

The researcher introduced the website project to the students in the twelfth week of the spring semester. The researcher also indicated that the project was a research study and participation was voluntary. Participants also filled in Voluntary Participation Form according to the regulations of the Research Center for Applied Ethics in Middle East Technical University. The researcher informed the participants that they needed to fill out a survey and participate in an interview after completing the project. The project was implemented as one of the three quizzes of that term and it would affect their overall class report grade three percent and five extra bonus points were given to the students when they completed the questionnaire and interview.

At the beginning of the project, the students were given the information about the process and login the website process was illustrated in the classroom using an overhead projector. However, the students were expected to complete the whole project at home. The project was planned to last for eight days and data gathering process took four days in total. The students were given restricted time for each step of the process and they were not allowed to move to the next step before the arranged date. Additionally, students could not go back to a previous step if the due date is over. They were expected to complete the survey in Step 1 on the first day. The

discussion in Step 2 lasted four days. In Step 3, they were given two days to write a paragraph and one more day to evaluate their friends' work. A Facebook group was created to provide instant help in case the participants had any technical problems or questions about the process.

### 3.4.2. Focus Group Interviews

The researcher conducted eight focus group interviews with 25 participants to collect more detailed information about their perceptions of the project. The interviews lasted for 10-20 minutes. There were three students in seven groups and there were four students in one group. Students were assigned randomly to the groups. All the interviews were recorded using an audio recorder and transcribed on computer giving pseudo to the participants. One of the interviews could not be transcribed completely because of the technical problems, so the researcher took notes right after the interview.

## 3.5. Data Analysis

Following "mixed method", both quantitative and qualitative analysis techniques were employed in this study. Initially demographic information was collected and reported in frequencies or percentages. Mean scores and standard deviations were calculated for each item. The qualitative data of the interview stage were first transcribed on the Word Processor and then analyzed.

### 3.5.1. Quantitative Analysis

The quantitative data were analyzed using descriptive methods such as mean scores, and standard deviations.

### 3.5.2. Qualitative Analysis

The qualitative data gathered from focus-group interviews were first transcribed, and then segmented according to the topic of each interview question. Student answers for each question were enumerated to decide the frequency of the coded sub-categories. The qualitative data were interpreted in numbers to increase reliability and objectivity (Yıldırım & Şimşek, 2000).

## 3.6. Assumptions and Limitations

### 3.6.1 Assumptions

The followings are assumed for the purposes of the current study:

- The participants answered all the questions honestly and accurately.
- Validity and reliability measures of the study were dependable to allow accurate conclusions.
- The data collected were recorded and analyzed accurately.

### 3.6.2 Limitations

- A limitation of this study is the result of the sampling technique used, which is convenient sampling. Thus, the participants in the study cannot be representative of all learners in preparatory classes and the findings of this study may not be generalizable to other specific cases. However, this study can be replicated and similar results can be identified in further studies.
- The findings of this study are limited to the items included in the questionnaire and focus group interviews.
- The results are valid as to the degree of the subjects' honesty in their responses to the instruments.
- This study is limited to the EFL context and specifically to the prep school class where it was conducted.
- Any positive or negative findings are related to the characteristics of the learners in this context and the topic of WebQuest which is the content.

# CHAPTER 4

# FINDINGS

The Effectiveness of WebQuest Project Questionnaire and nine open-ended questions were used as the instruments of the study. Mean scores and standard deviations were used to analyze the quantitative part of the study. Qualitative part was employed to elicit detailed answers about the research questions and to complement the quantitative analysis. The findings will be presented in detail in this chapter of the study.

## 4.1. Quantitative Data Analysis

Descriptive statistics such as mean scores and standard deviations were used to analyze the quantitative data. Quantitative data analysis was categorized under four main headings which are about general design of the site, the steps of the project, perceptions about WebQuest project, and performance in language learning.

### 4.1.1. Learner perceptions about WebQuest site design considering General Design, User Friendliness, Grammar, and Technical Issues

There were nine items about the General Design of the web site. The mean score was 4.18. The highest mean scores were for items 6 and 7 (*M*= 4.6). The lowest mean score was for item 5 (*M*=3.66).

The item with the lowest mean score is the fifth one. "Colors used within the pages are in harmony." (*M*=3.66). Light and dark tones of grey and blue were used as the main colors of the design. It is possible that students preferred brighter and more contrasting colors, so they thought these colors do not match each other.

Table 3 Mean Scores and Standard Deviations for General Design

| General Design | N | M | SD |
|---|---|---|---|
| Item 1- Screen design is visually appealing. | 25 | 3.88 | 1.16 |
| Item 2- Visuals are consistent with the content. | 25 | 4.20 | 0.70 |
| Item 3- Visuals give cues to users. | 25 | 4.32 | 0.55 |
| Item 4- Screen is used in an effective manner. | 25 | 4.16 | 0.74 |
| Item 5- Colors used within the pages are in harmony. | 24 | 3.66 | 1.02 |
| Item 6- No readability problems within the pages. | 25 | 4.60 | 0.57 |
| Item 7- Page elements are aligned properly. | 25 | 4.60 | 0.50 |
| Item 8- Elements are distributed in the pages in a balanced way. | 25 | 4.28 | 0.79 |
| Item 9- Clickable areas attract attention. | 25 | 4.00 | 1.19 |

There were four items in the Grammar part of the questionnaire. The overall mean score was 4.23. The highest mean score was for item 2 (*M*= 4.44) and the lowest mean score was for item 4 (*M*= 3.96) as shown in table 7.

The item with the lowest mean score is the one about the technical terms (*M*= 3.96). An explanation for this can be the fact that students might have considered the resources pages for this item.

Table 4 Mean Scores and Standard Deviations for Grammar

| Grammar | N | M | SD |
|---|---|---|---|
| Item 1- No spelling mistakes exist. | 25 | 4.36 | 0.70 |
| Item 2- No grammar mistakes exist. | 25 | 4.44 | 0.65 |
| Item 3- Language used is appropriate to students' language proficiency. | 25 | 4.16 | 0.80 |
| Item 4- No technical terms, which are difficult to understand, exist. | 25 | 3.96 | 0.88 |

There were four items in the Navigation part of the questionnaire. The overall mean score was 4.44. The highest mean score was for item 2 (*M*= 4.56) and the lowest mean score was for item 4 (*M*= 4.36) as shown in the table below.

The item with the lowest mean score is about getting lost while navigating on the site (*M*= 4.36). It is possible students thought they got lost while visiting the resources pages.

Table 5 Mean Scores and Standard Deviations for Navigation

| Navigation | N | M | SD |
|---|---|---|---|
| Item 1-No broken links exist. | 25 | 4.48 | 0.87 |
| Item 2- Links open in separate pages. | 25 | 4.56 | 0.58 |
| Item 3- Navigation options are used consistently within the pages. | 24 | 4.37 | 0.48 |
| Item 4- Site navigation is easy. | 25 | 4.36 | 0.75 |

There were five items in Technical Issues part of the questionnaire. The overall mean score was 4.44. The highest mean score was for item 5 (*M*= 4.8) and the lowest mean score was for item 3 (*M*= 4.04).

The item with the lowest mean score is about saving the changes to the system (*M*= 4.04). There was a time-out problem in the beginning of the project which was fixed later.

Table 6 Mean Scores and Standard Deviations for Technical Issues

| Technical Issues | N | M | SD |
|---|---|---|---|
| Item 1- Pages download quickly. | 25 | 4.44 | 0.65 |
| Item 2- Pages can be used without additional plug-in. | 25 | 4.64 | 0.63 |
| Item 3- Changes can be saved to the system without any problems. | 25 | 4.04 | 1.24 |
| Item 4- Pages operate without any errors. | 25 | 4.28 | 0.79 |
| Item 5- The system can be logged in using user name and password. | 25 | 4.8 | 0.40 |

The overall mean score of the WebQuest site considering General Design, Grammar, Navigation, and Technical Issues was 4.32 which shows that participants feel positive about the site.

### 4.1.2. The perceptions of participants about the process of WebQuest project, namely Introduction, Task, Process, Resources, Evaluation, and Conclusion

There were four items about Introduction part of the Process. The overall mean score was 4.13. The highest mean score was for item 1 (*M*= 4.56) and the lowest mean score was for item 4 (*M*= 3.87) as shown in the following table.

The item with the lowest mean score is about the relationship between the objectives of the course and the project (*M*= 3.87). Students might have felt that it takes longer than a week or much more than a single project to reach the objectives of the course.

Table 7 Mean Scores and Standard Deviations for Introduction

| Introduction | N | M | SD |
|---|---|---|---|
| Item 1- Introduction presents goal of project. | 25 | 4.56 | 0.58 |
| Item 2- Project topic is appealing. | 25 | 3.88 | 1.01 |
| Item 3- Introduction gives enough concrete information about the project. | 25 | 4.24 | 0.59 |
| Item 4- Project's scope is consistent with learning outcomes of the course. | 24 | 3.87 | 1.01 |

There were four items about Task of the project. The overall mean score was 4.18. The highest mean score was for item 4 (*M*= 4.44) and the lowest mean score was for item 3 (*M*= 3.84).

The item with the lowest mean score is about the contribution of the project product to language learning (*M*= 3.84). One possible reason for this can be the fact that students believed language learning is a longer process and a project of about a week can only be a small step to their achievement.

Table 8 Mean Scores and Standard Deviations for Task

| Task | N | M | SD |
|---|---|---|---|
| Item 1- In the task section, project expectations are clearly explained. | 25 | 4.24 | 0.52 |
| Item 2- Project requires interpreting knowledge in various forms. | 25 | 4.2 | 0.64 |
| Item 3- Developing a project to contribute to language learning is expected. | 25 | 3.84 | 0.74 |
| Item 4- The roles and tasks necessitate different points of view. | 24 | 4.44 | 0.71 |

There were four items addressing Process. The overall mean score was 4.2. The highest mean score was for item 3 (*M*= 4.64) and the lowest mean score was for item 1 (*M*= 3.68).

The item with the lowest mean score is about the time given to complete the project (*M*= 3.68). Some students might have found the time allotted insufficient since they needed to write the paragraph (Step 3) at the weekend when they preferred to spare time for other activities.

Table 9 Mean Scores and Standard Deviations for Process

| Process | N | M | SD |
|---|---|---|---|
| Item 1- Stages of the process are organized so that they can be accomplished in the allocated time. | 25 | 3.68 | 1.10 |
| Item 2- Each stage is explained in a clear and definite manner. | 25 | 4.24 | 0.87 |
| Item 3- Students can request help from instructor when they face a problem. | 25 | 4.64 | 0.75 |
| Item 4- Stages of the process are organized according to the steps of knowledge, comprehension, application, analysis, synthesis, and evaluation. | 24 | 4.24 | 0.66 |

There were four items about Resources of the WebQuest Project. The overall mean score was 4.2. The highest mean score was for item 3 (*M*= 4.36) and the lowest mean score was for item 4 (*M*= 3.88) as shown in the following table.

The item with the lowest mean score is about the compatibility of the resources to the language level of students (*M*= 3.88). The participants in this study were assumed to be Intermediate level learners; however, it was observed that all students were not exactly at the same level of language proficiency. Furthermore, the resources were authentic materials in English. Students were expected to improve their reading skills by using different strategies they learnt in class.

Table 10 Mean Scores and Standard Deviations for Resources

| Items | N | M | SD |
|---|---|---|---|
| Item 1- Enough information is provided to complete the project. | 25 | 4.32 | 0.62 |
| Item 2- Web addresses are given with extra information that defines site. | 25 | 4.24 | 0.59 |
| Item 3- Information sources are consistent with project topic. | 25 | 4.36 | 0.48 |
| Item 4- Information sources are appropriate to students' language level. | 24 | 3.88 | 0.97 |

There were three items about Evaluation of the WebQuest Project. The overall mean score was 3.73. The highest mean score was for item 2 (*M*= 3.96) and the lowest mean score was for item 1 (*M*= 3.48). The evaluation part of the WebQuest illustrated how student work was evaluated. It was observed that some students did not notice this information as they were busy with the project or some students needed clear explanations in the classroom.

Table 11 Mean Scores and Standard Deviations for Evaluation

| Items | N | M | SD |
|---|---|---|---|
| Item 1- Grading of each task is clearly defined. | 25 | 3.48 | 1.29 |
| Item 2- Students have the chance to get feedback and performance reports. | 25 | 3.96 | 1.01 |
| Item 3- Evaluation criteria are consistent with course objectives in terms of information and skills. | 25 | 3.76 | 0.72 |

There were three items about Conclusion of the WebQuest Project. The overall mean score was 3.98. The highest mean score was for item 1 (*M*= 4.16) and the lowest mean score was for item 2 (*M*= 3.8) as shown in the following table.

Table 12 Mean Scores and Standard Deviations for Conclusion

| Conclusion | N | M | SD |
|---|---|---|---|
| Item1- Conclusion summarizes students' experience during the process. | 25 | 4.16 | 0.55 |
| Item 2- Conclusion part aims to prepare students for real-life situations. | 25 | 3.8 | 0.95 |
| Item 3- Messages in conclusion give clear explanations to students about how they are expected to succeed when they finished the project. | 25 | 4.00 | 0.70 |

The overall mean score of the Project steps - Introduction, Task, Process, Resources, Evaluation, and Conclusion- is 4.07. This result might mean that students have positive attitudes towards the steps of the project and the guidance.

### 4.1.3. Learner perceptions about WebQuest project and working collaboratively in a group

There were 16 items that questioned participants' perceptions about the WebQuest project and working collaboratively during the process. The overall mean score was 3.58 for this part. The highest mean score was item 7 (*M*= 4.32) and lowest score was item 4 (*M*= 2.76).

The item with the lowest mean score (*M*= 2.76) was "I did not need to ask for the instructor's assistance while completing the project".

Table 13 Mean Scores and Standard Deviations for Perceptions about the WebQuest Project and Working Collaboratively

| WebQuest Project and Working Collaboratively | N | M | SD |
|---|---|---|---|
| Item 1- This project oriented me to research. | 25 | 3.88 | 1.20 |
| Item 2- I did not have problems due to the time imitations. | 25 | 3.16 | 1.31 |
| Item 3- I think I am suitable for group work. | 25 | 3.56 | 1.26 |
| Item 4- I did not need any help from the instructor during the project. | 25 | 2.76 | 1.39 |
| Item 5- I valued the contribution of members of the WebQuest project. | 25 | 3.84 | 1.10 |
| Item 6- I shared information with other participants. | 25 | 3.88 | 1.16 |
| Item 7- I showed respect for other participants' opinions during the project. | 25 | 4.32 | 0.69 |
| Item 8- I generated creative ideas during the project. | 25 | 3.88 | 0.88 |
| Item 9- I helped other participants find their mistakes. | 25 | 3.08 | 1.28 |
| Item 10- I completed the WebQuest project easily. | 25 | 3.48 | 1.15 |
| Item 11- The WebQuest project encouraged me to collaborate with other participants. | 25 | 3.44 | 1.38 |
| Item 12- The WebQuest project made me use my imagination. | 25 | 3.72 | 1.17 |
| Item 13- Contributing to WebQuest increased my motivation for the course. | 25 | 3.60 | 1.11 |
| Item 14- WebQuest supported my understanding of course-related topics. | 25 | 3.28 | 1.10 |
| Item 15- WebQuest was effective for reaching the goals of the course. | 25 | 3.68 | 0.94 |
| Item 16- Project-based learning is more efficient than individual work. | 25 | 3.76 | 1.33 |

### 4.1.4. Perceptions of the participants about the effects of WebQuest Project on their achievement and performance in language learning

There were six items about the effects of WebQuest project on student achievement and performance in English language learning. The overall mean score was 4.16 for this part. The highest mean score was item 6 (*M*= 4.52) and lowest score was item 1 (*M*=3.8).

The item with the lowest mean score (*M*= 3.8) was about completing this project by the support of the Internet. A few participants might have negative attitudes towards internet.

Table 14 Mean Scores and Standard Deviations for Achievement and Performance

| Achievement and Performance | N | M | SD |
|---|---|---|---|
| Item 1- I liked having web support for this course project. | 25 | 3.80 | 1.19 |
| Item 2- WebQuest project generally contributed to language learning. | 25 | 4.16 | 0.74 |
| Item 3- WebQuest project helped me improve my English reading skills. | 25 | 3.88 | 1.09 |
| Item 4- WebQuest project helped me improve my English writing skills. | 25 | 4.36 | 0.63 |
| Item 5- This project helped me to practice the grammar rules that I learnt before. | 25 | 4.28 | 0.73 |
| Item 6- This project helped me to learn new vocabulary. | 25 | 4.52 | 0.58 |

### 4.1.5. Missing Data

There were missing data in three different items. One of them was General Design Item 5 "Colors used within the pages are in harmony." Second one was Navigation Item 3 "Navigation options are used consistently within the pages." The last one was Introduction Item 4 "Project's scope is consistent with learning outcomes of the course." Mean substitution technique was preferred not to lose data and since missing values were small.

## 4.2. Qualitative Data Analysis

The interviews were recorded by a voice recorder and then transcribed on computer. Student answers to the open-ended questions were grouped around the content of each question and they were color coded to count the frequencies easily. These categories will be explained with several direct quotations from the data.

### 4.2.1. How does studying in a planned and guided way affect the learners?

Firstly, participants were asked about how they were affected by studying in a planned and guided way throughout the project. Twenty participants out of twenty-five stated that being guided through a step by step process had been beneficial for them for different reasons. Six students claimed this project increased their feeling of responsibility. Participant 2 responded "Studying in a planned and guided way for this project made me love English more and increased my motivation for the lesson." Participant 21 favored time restrictions to increase responsibility and said "Responsibility is a good feeling… If a person does not do homework in time, s/he feels restless..." Participant 24 said "Studying regularly led me to make plans for my own learning." Participant 22 added that students became aware of their own learning and noticed their mistakes. Five students claimed studying in a guided way helped them revise the previous subjects and learn new vocabulary.

Participant 1 said that s/he had felt stressed about the time restrictions of the project. This participant added "I do not feel comfortable with group work because it affects me negatively when other members do not take responsibility." S/he also commented that she normally used the Internet a lot; however, it was different to use the Internet for class work. Participant 4 answered "It was boring... I do not like technology. Normally, I do not like using the Internet. I prefer books to the Internet." Participant 16 expressed that this project is more appropriate for higher level students. S/he added "If my level had been better, I would have been more successful in this project." Participant 2 disagreed with this student and gave positive feedback about the level. S/he added "I think the level was fairly suitable. When there were new words, I looked up in a dictionary. This project led me to research." Participant 8 said "I am comfortable with the group work. I liked the discussion part and

persuading others. Moreover, I learnt my friends' ideas about the topic." Participant 8 claimed that it was nice to engage in learning everyday at the same time and that increased motivation. Participant 12 expressed s/he had never studied in a planned way in his life and some personal problems about health affected his/her performance. Participant 13 said "I spend at least 3 hours daily on the Net. If we had to write it on paper, it would be difficult to leave the computer, sit at a table and write it down but in this way, we had the chance to do our work in a place where we spend most of the day." Participants 14 and 25 commented that such projects need to be done more often and thus they can do better in later applications. Furthermore, they agreed that group work has a positive effect in promoting relationship among friends. Participant 8 asserted the topic could be different and it would be better if they chose the topic of discussion among three choices.

According to the results, it can be said that the students need to be guided in their learning to get used to studying in a planned way. Despite being at university, many students lack the necessary skills to become autonomous learners (Şen & Neufeld, 2006). A few students claimed that they did not favor guided learning because of restrictions; however, they also accepted they would not have completed the project if there had not been any guidance or plan. In conclusion, in project-based learning it can be correct to divide the process into steps at different time intervals to reach learning outcomes.

### 4.2.2. What kinds of problems are encountered while completing the project?

The second question was related to the problems that student faced during the project. We can group these problems under three headings. They are time restrictions of the project, technical problems, and Internet access. Participants 19 and 22 reported that they did not have Internet access at home or in dormitories, so they had to go the Internet cafes every day. Other twenty-three students could use Internet any time they wanted. That was a good situation when we consider these students had just started university and they could have difficulty in finding a good accommodation with facilities.

Participants 5 and 16 mentioned the given time to complete each step of the process was not enough for them. Participant 5 said "I could have finished all steps if I had

been given some extra time." Participant 12 added "Actually time was appropriate to finish each step but I visited my relatives at the weekend so I needed some extra days." Participant 18 explained that s/he was ill at the weekend and it was difficult to concentrate on the project as it was holiday. Students were given one day for Step1, four days for the discussion in Step 2, two days to write a paragraph in Step 3, and 1 day to choose the best paragraph in Step 4. They had to write the paragraph at the weekend. Participants 12 and 18 reported they could have written a better paragraph if it had not been on weekend.

Another problem was a time out problem encountered in the second and third steps of the process. Students could login successfully to the system but the system asked them to login again after a while. Some students might have lost data because of this problem. However, they used different ways of solution to solve this problem. Five participants pointed out they solved this problem copying what they had written and then logging into system again to paste it. Two students reported they wrote their messages in Word and two others used paper and then typed it on the computer. None of the students said that they encountered a technical problem in Step 3 and 4. After getting the feedback from students in the beginning, some changes were made immediately. This technical problem was unexpected but solved rapidly. Conducting a pilot study might be a good solution for such problems; however, it was not preferred as mentioned earlier. Four participants asserted they needed the support of the instructor during the project and they felt positive about this. A Facebook group was created to share the problems and ideas about the project. The instructor/ researcher provided support either in English or in participants' mother tongue, Turkish.

### 4.2.3. What are the learner perceptions about using the WebQuest technique in their future profession if needed?

The third question was about whether participants thought using WebQuest technique in their future life if needed. Students proposed different reasons to use this application which shows they believe in the effectiveness of this technique:

- To motivate the target audience for learning
- Availability of the Internet and its common use in daily life
- To enable flexibility for time and place
- Being suitable to arrange group work
- Positive experience with the technique
- Being informative with visual aids and other materials

Eighteen out of twenty-five participants asserted they will certainly use this technique or similar projects in their future life. They had different reasons. Participant 2 said "This is the best technique to get attention. I would use it because technology is common and everybody uses it." Participant 12 added the Internet was like water or bread in this global world. Participant 5 pointed out that this technique is flexible as everybody can participate in such kind of a project anytime from everywhere. Participant 7 asserted it is better to use Internet in group projects as meeting with members could be a problem in real life.

Participant 9 responded "I will use it in my future life. My experience with this technique was positive I want the same for other people." Other three students said that this technique was very informative and enjoyable. They argued that using videos and other materials on the Net is very motivating for people.

Participants 14 and 20 responded they did not think about using this technique because they believed they would not need to use teaching in their future job if they do not decide to be academics. They added they could use if they need. Participants 3 and 18 said they would prefer PowerPoint or projector instead of this technique. Participant 1 commented "I am not confident with using technology. If I were more interested in technology, I would certainly use it since individuals gain a lot." Only Participant 4 expressed that this technique was not a good one to choose. S/he added "The Internet makes people lazy, leads them not to search for information. People do not care about books anymore. Students use Facebook, chat on the Net even while studying. Too much comfort is not good."

### 4.2.4. What are the learner perceptions about the contribution of the project to their real-life problems in situations similar to the scenario of the task?

Regarding the question for the contribution of the project in similar real life problems, the participants could see a connection between their lives and the scenario of the task. Nineteen students asserted that they could face a similar situation in real life. Participant 9 said "I think I can talk to a foreigner about this topic easily thanks to this project." Participant 23 added that they learnt a lot of information about the positive or negative effects of TV and that can help them in daily life. Participants 5 and 23 claimed that they can go to a foreign country and study in a similar project. Participant 15 commented the roles were realistic and participating in an online discussion is very common in today's world. Participant 14 said, "This project was useful for my personal development. That can help me not to repeat the same mistakes in similar situations and reinforces my positive behavior." Participant 21 further asserted that it would be better if they had such kind of projects in their own departments.

Participant 12 expressed that the scenario cannot help them in real life situations because their life on the Net is virtual. Participant 20 said "I did not feel myself in this scenario. I only thought to finish the project. I do not think people watch Turkish TV channels in foreign countries. It was not realistic in this sense." Based on these results, we can say that most of the students can relate the scenario of the project to their real lives if it is realistic enough. In this way, they can be intrinsically motivated for the lesson not only for the grades but also for their future life and their own interests.

### 4.2.5. Which three characteristics of the WebQuest project do participants favor most?

Three main themes emerged when students were asked the three features of the system that were favored most. These are usability of the website, learning related benefits, and increased motivation. 11 students asserted that they liked learning new things and improving their English in this project. Participant 1 expressed that s/he

liked the organization of the process in steps. Nine participants explained that they liked the usability of the system in terms of the possibility to change what they had written and also the resources, simple instructions, and user friendliness. Thirteen students stated that they liked discussing with their friends and supporting opposing ideas. Same students also added they liked studying in groups and competence was a good factor to motivate them. Participant 14 said, “I liked communicating and asserting different ideas. This project urges learners to think, share, and improve personal characteristics.” We can conclude that students are aware of different benefits of the project and WebQuest might be a good technique depending on the fact that students value it a lot.

### 4.2.6. Which three characteristics of the WebQuest project do participants favor least?

When students were asked which features of the application they did not like, four participants pointed out that they liked all the characteristics of the web project. Others provided different answers for this question. Six students asserted they needed deadline extension to complete tasks. Other six participants pointed out the time out problem. Participant 1 said “I do not like being in subjection to the group members. I would like to be free to choose whether to support the argument or not but my role was given beforehand. Finally, I did not like the project to be on the Net.” On the other hand, Participant 14 emphasized the importance of group work saying “I think group dependence is very important and must be more common. In this way my friends can affect me in positive way and encourage me to study more.” Participant 8 said “I did not like the topic of TV. I could not find anything to say after some time as it is a controversial topic and both sides are right.” Participant 16 claimed that the project was difficult for them in terms of new vocabulary and this project could be done easily by upper level students. One last comment was about the colors of website design. Four participants criticized the colors of the design as they found grey and blue dull. The system was generally valued by the learners but we can see the individual differences in their comments. Their preferences will be analyzed in detail in the following pa

### 4.2.7. What are the learner suggestions to make the WebQuest site more effective and useful?

The participants were asked to share their ideas about how to make the web application more effective and they made different suggestions. Suggestions are listed below with the numbers that show how many participants made it.

- More pictures, illustrations, visual effects, and animation (9)
- More lively and contrasting colors such as pink and blue or green (4)
- The opportunity to choose the topic among three options (2)
- Extra time to complete tasks (1)
- Having the opportunity to see other groups' final products at the end of the project (1)
- Short links for other websites (1)
- More resources (1)
- Chatting and messaging options (1)

### 4.2.8. What are the learner perceptions about supporting language learning with the Internet in terms of their achievement and performance at school and in real life?

All participants gave positive feedback when they were asked about the effects of this web project on their performance in language learning. Seven students agreed that they learnt new words and they revised the vocabulary they had learnt this year. Four students claimed that they had the chance to use different grammar structures. Six learners argued that this project improved their writing skills and they understood paragraph organization better. Other two learners expressed that their verbal communication got better after this project even if they did not speak. Participant 11 explained that studying regularly helped them to take responsibility for themselves and the group. Participant 2 stressed that this project improved their research skills and they used dictionaries to write what they thought. Five students pointed out it was enjoyable to study on the Net and they did not get bored. Participant 25 said, "It

is not possible to see effects as the project lasted a week but if we do such projects more often we can see the long term effects easily. This project contributed to my learning and improved my group work skills."

# CHAPTER 5

# DISCUSSION AND IMPLICATIONS

This study investigates the integration of technology into language learning at higher education, prep-school level. In English Language Teaching, project-based learning, cooperative learning, and content based teaching methods are increasingly used by educators. These approaches in connection with problem-based inquiry methods require learners to be autonomous and take responsibility for their own learning. According to the constructivist methods, students need to construct their own learning step by step; however, learner cognition also need to be taken into consideration (Prapinwong, 2008). When designing a learning situation, using tasks which require using higher level thinking strategies help learners improve their problem solving skills and use these skills in similar authentic tasks or in real life. In this way, learners understand the connection between learning and daily life and they can have an aim or motivation to learn. Also, employing cooperation and group work in learning environments is important for learners to take responsibility in a team and to increase group interdependence (Boling& Robinson, 1999). However, parallel to real life, individual learning as well as group work need to be taken into consideration.

Given the place of technology and the Internet in modern world, it is impossible to think education in isolation. Going as early as to the invention of first technology to teach such as pen, paper, or board; every singly technology was highly exploited and new techniques and methods are investigated to use them more effectively. There has been much effort to integrate radio, TV, language labs, and finally the Internet into classroom teaching (1986, Cuban). Considering the power of the Internet in terms of availability, practicality and cost, a new era has started in learning outside school. However, some precautions need to be taken to prevent this large pool of information

from turning into a source of informational pollution. Thus, learning situations need to be prepared more thoroughly under the light of sound research (Chadwick, 2002).

For the current study, WebQuest approach was investigated with its dynamic environment which requires and provides learners to make some changes in the environment as they complete the task itself (Gülbahar& Kalelioğlu& Madran, 2008). Students could personalize their learning by saving their own data on the system. In this method, we can investigate other variables such as social learning, higher level thinking skills, and motivation in addition to the use of technology. Perceptions of participants were used to investigate these effects and provide a small step for future studies.

### 5.1. Opinions about the Design of the WebQuest Site

In the first part, learner perceptions about the general design were investigated. Considering both the quantitative and qualitative data gathered, it is possible to say that learners favored General Design, Grammar, Navigation, and Technical qualities of the site. Furthermore, learner views show that visual elements support their learning. However, some participants favored more contrasting colors and pointed out that they preferred more pictures. An explanation to opposing answers can be individual differences. As a solution, learners can be given the opportunity to change the appearance of the site as they wish. In this way, learners can contribute to the creation of their learning environment.

### 5.2. Opinions about the Steps of the WebQuest Project

For the second part of the study learner ideas about the WebQuest project and its steps were examined. The steps of the process, namely Introduction, Task, Process, Evaluation, and Conclusion were said to be easily understood and the guidance provided was thought to be sufficient. The Introduction part introducing the scenario and the product of the task immersed the learners into the project. Competition was added to the scenario to increase learner motivation. In this way, students learned

what they needed to do and what their aim was. Completing a survey in the first step, students were given different roles and a discussion board was used in the second part. Students gave positive feedback about the clarity of instructions and connection of each step to one another and the whole process. Some participants found the allocated time insufficient and needed extra time. Internet resources were chosen by the instructor and in this way learners did not lose time and energy to get information. The feedback about the resources was generally positive but it was a challenge to find sites appropriate to learners' language level for the instructor's part since all Net resources required a good command of English. However students favored the resources provided by the instructor and in this way they were guided to exploit and evaluate web sites intelligently (Lipscomb, 2003). Evaluation part of the study was thought to be helpful in providing the criteria about how their work is evaluated. When students know what they get at the end of the task, they can arrange themselves accordingly and their motivation increases as they have an aim.

### 5.3. Opinions about the WebQuest and Its Relevance to Language Learning

In another part of the study, students' perceptions about the process of the WebQuest project were investigated. Results showed that students favored working collaboratively and group work increases their motivation to complete the task. In terms of guidance students gave positive feedback about the amount of help provided by the instructor through a Facebook group and the application itself; therefore, they could ask for help anytime after school. Guidance is an important factor as some students might quit the task if they face a problem and cannot solve it. Gubacs (2004) emphasized the importance of feedback saying "Feedback is one of the most important aspects of improving performance because it corrects, reinforces, and motivates."

In the last part of the quantitative analysis, learner perceptions about the effects of the web application on their achievement in language learning were questioned. Combined with the qualitative part, data shows that learners think the present projects affected their learning positively and contribute to their writing skills and

vocabulary learning mostly. Other gains were said to be observed in grammar revision, using functions, and reading.

### 5.4. Interview Questions

When the results of the interview were analyzed, more detailed and elaborate findings revealed that studying in a guided and planned way affected learners positively. They took responsibility for themselves and also for others in group. They practiced to plan their learning depending on the given guidance. Another positive effect of the web application was claimed to be an increased awareness of learning and evaluation of their own learning. Other positive effects were argued observed in motivation and research skills. Additionally, most students favored to complete the project online since they could do it at anytime from anywhere.

The problems encountered during the execution of the project were grouped under three headings as time restriction, technical problems, and Internet access. The students were given four days for online discussion and two days to write a paragraph. This amount of time was not considered sufficient by some students due to personal problems such as illness and going out of the city for the weekend. This problem was expected as it is already common for the tasks given in classroom or homework. Such a problem was also encountered by other researchers since WebQuest could not be completed in the allotted time (Perkins& Mcknight, 2005, p.131). Another problem faced by students was the time-out problem. It was the only negative comment about the technical quality of the application. This time-out problem was related to the server that was used to publish the site. This server asked participants to login again if they exceeded the time limit. That problem was unexpected since there had been some trials of the system and no problems occurred during the trials. It might be because of the fact the users who tried the system did not spend as much time as the real participants on the system so they did not report this problem. However, this fault on the system was corrected by mailing the server system assistants as soon as participants gave feedback. There was no report of such problems in Step 3 and 4. Technical problems can affect learner perceptions about the task negatively as it was the case in the study conducted by Şen and Neufeld

(2006). They added "Technological problems cannot always be anticipated, so the guidelines and assessment should be flexible to cater for unforeseen complications."

Last problem was about having the Internet access outside the school. This problem was reported by two students. They expressed they did not use the Internet much. It was surprising as most students spend a lot of time on the Internet nowadays. These two students also reported to have some accommodation problems because that was their first year at university.

Most of the students were willing to use WebQuest technique in their future professions when needed. Students proposed different reasons to use this application such as to motivate the audience and to arrange flexibility for time and place of meeting. That shows they believed in the effectiveness of this technique. On the other hand, five students were not eager to use this application. One reason is that they studied in different departments –not related to teaching- and they did not believe they would need to teach something in their future professions. However, all of them agreed that they could need to use educational techniques and methods if they were in charge of in service training or if they wanted to work at university. One student argued technical literacy is required to use such techniques and s/he did not feel comfortable with using computers. Only one student gave negative feedback on the grounds that technology made people lazy.

When students were asked about the contribution of this project to their real life issues, it was clear they made a connection between the scenario of the task and real life. Nineteen students agreed they could face a similar situation. Participants expressed their opinions about the possibility of studying at a foreign university and taking a similar course. It was also argued to be possible to participate in an online discussion about TV as it was in the task. It was clear that students understood and felt knowledgeable about the topic, and they could make suggestions about their friends or relatives' watching TV habits after completing this project. However, one student criticized the project since it was virtual and also they would not talk about Turkish channels in a foreign country. As a result, it can be said that intrinsic motivation is an important factor for learners but that depends on individual differences partly.

The top-three features that were favored mostly by students were motivational effect, learning related gains, and the technical features of the system such as being able to make changes and saving their work. Organization of the task in steps, the resources, clear instructions, user friendliness of the site, group work, being able to discuss and share opinions, competence, allowing communication, and personal gains were also appreciated by the participants.

In relation with the issue above, few features were perceived negative by learners. They pointed out they needed time extension to complete the tasks. Secondly, time-out problem of the web site was reported. The system was generally valued by the participants but students suggested some changes which will be explained and listed below in detail.

- Additional communication tools (chat, sending private messages, etc.)
- More pictures, animations, and illustrations
- The option to change the colors of the pages according to personal preferences
- Providing three different topics to choose
- Giving the opportunity to choose their roles in the scenario
- Being able to see other groups' final products at the end of the project
- Short links for other websites
- More resources

The first suggestion is applicable to such web based applications. These tools can help participants communicate more easily and get the right answers to their questions. In this application, a Facebook group was used to provide communication between the instructor and learners. Almost all students already had accounts on this website. It was practical to use this social network since most students reported to spend nearly three hours a day on this site in average. In this way, the notifications and other technical features of this site were used to remind of the task and to guide the learners throughout the process. The instructor provided help in English and in

their mother tongue. However, Turkish was used more often to ensure that everything is understood clearly.

Second suggestion can be taken into consideration because visual aids are very crucial in learning but there comes the question: “What is the limit to use pictures and animations?” For this task different visual aids were used and there were a lot more on the resource pages. Unfortunately, it is not easy to say how many pictures or illustrations are enough; however, it can be said that students preferred more pictures and illustrations in this research group. In the same way, students provided different feedback about the colors. Some learners favored the colors of the site but some of them fancied more contrasting colors depending on their personal choices. Therefore, it seems logical to give them the choice to change the colors as they like and this feature can technically be applied.

Next, providing three options to choose as their topic of discussion is very ideal to include the learners in the decision making process. Moreover, they can choose who to study with, what their roles are. Yet some problems can arise in these situations. Firstly, if students choose different topics, it might be difficult to decide on the criteria for evaluation of different topics but providing learners with choices is good if there are no drawbacks. Letting learners decide who to study with can be practical and motivational in some cases. Deciding what role to take is impractical in this case since there should be equal number of people for different roles.

When students feel that there is a competition in their task, they are more motivated for the task. Peer assessment was used and a competition with an award was introduced in the scenario. The best paragraph was chosen in two steps. In the first step, students chose the best paragraph in their groups and then the bests of all groups were evaluated by the instructor. The best paragraph was announced on a newspaper as a prize.

Being able to see other groups’ work at the end of the project was suggested by one person. There are no negative sides of this suggestion if it is done at the end and they may compare their work and learn more.

Short links for other websites was suggested by one participant to make the site more interesting. However, there can be some problems about choosing appropriate websites and this website was thought to be only educational not commercial. One

student suggested using more resources. This suggestion can be taken into consideration since it is better to provide more options. However, it was not easy to find the resources appropriate to the context, and learning environment. Some of them were irrelevant, inadequate, and not suitable for educational purposes. Secondly, as the materials were authentic materials and students English level were intermediate, it can be wrong to give them many materials to study in a restricted time. However, students can add or suggest more resources by posting links in future applications.

It is necessary to talk about the level of the classroom in details because it was difficult to arrange the right materials with the right objectives. The students in the classroom were elementary learners at the beginning of the academic year. To the end of the second term, they were assumed to be intermediate level learners. However, there might be real intermediate level students and still elementary ones in the classroom. As a result, some students might have had more difficulty in understanding the authentic Internet-based materials.

Finally, it can be said that a dynamic WebQuest approach, which allows communication and interaction among users, helps learners improve their language proficiency in students' point of view. The results show positive feedback about grammar, vocabulary, writing, reading skills of English. Additionally, participants were encouraged to work in a regular and guided way.

### 5.5. Comparative Analysis of the Questionnaire and the Interview Results

The qualitative part of this study was conducted to get detailed answers about the survey results. The interview complements the questionnaire by asking the questions "What", "Why?", and "How?".When the findings of the questionnaire and the interview compared, the parallelism can be seen between the results. Participants have positive attitudes towards the design of the site, the steps of the process, and language learning benefits. Next, most students prefer group work while some feel more comfortable with studying individually. The qualitative part discloses the problems encountered with possible solutions and also the features of the application that need to be improved in students' perspective. Findings of the both parts

combined, match with the results of a study conducted by Gülbahar& Madran& Kalelioğlu (2010). Gülbahar and her colleagues stated that:

*"It was found that the students favored the technology- supported media, were more willing to collaborate, found the feedback very useful, and agreed on the positive contribution of planned works. Consequently, the Web Macerası (WebQuest) site was found to be successful and to have been used effectively in terms of its aims. "*

Depending on the results, it can be said that using technology - and specifically WebQuest application- in English Language Teaching highlights the importance of the teacher and the methodologies used since the teacher acts as the facilitator and methodologies shape learning ( Şen& Neufeld, 2006).

### 5.6. Implications for Classroom Practice

Depending on the positive results of this study, the web site application can be used effectively in language classrooms with similar context, target audience and objectives. The instructor can make necessary changes to adjust this application to their educational context. Similar WebQuest applications might be more commonly used in classroom teaching as a cumulative project or in distance education.
Hereby, according to the results of the WebQuest application in the current study, the followings are suggested for instructors who want to experience WebQuest approach.

- Instructors should choose or create WebQuests appropriate to the age, level, and needs of the learners. Learning objectives and their relevance to the curriculum must be clarified beforehand.
- Instructors should explain the project to the learners with clear instructions, language and with visual aids if possible.
- Time intervals of each task should be sufficient for every learner.
- There can be some flexibility for learners in terms of topic or roles, if possible.

- Other techniques which are believed to be useful for the target learners can be integrated into the application such as motivational aids, peer assessment, and group work.

### 5.7. Implications for Research

In the current study, the perceptions of learners towards completing a WebQuest project and its relevance to learning were investigated. The results of the quantitative and qualitative measures show that students have positive perceptions about the project implemented. This case study can be replicated in future studies and similar results can be found. Consequently, such studies can make a meaningful contribution and guide the research in the field.

### 5.8. Future Recommendations

In further studies, any applications of WebQuest combined with other effective teaching strategies, assessment methods, collaborative projects, and higher level thinking skills can be studied. Moreover, future studies can focus on the effects of WebQuest application on listening, pronunciation, or other language learning skills. With the further studies in the area, WebQuests can be used as long term projects, classroom tasks, or for individual learning purposes.
Possible future studies can seek the answers to the following questions:

- What is the effect of WebQuest application on vocabulary retention?
- What is the effect of integrating social network/ Facebook into WebQuest application to share information?
- What is the role of WebQuest application on improving higher level thinking skills and social skills?
- What is the role of WebQuest application in improving learner's digital literacy in terms of choosing the related websites and using them effectively when doing research?

- What are the perceptions of learners about the integration of a WebQuest application into their curriculum?
- What is the relationship between learner motivation and difficulty of WebQuest task?
- How is the quality of discussion postings related to learner performance and achievement?

# REFERENCES


Abbit, J. & Ophus, J. (2008). What we know about the Impacts of Web-Quests: A review of research. *AACE Journal.* 16(4), 441-456.

Al-Bataineh, A., & Brooks, L. (2003). Challenges, advantages, and disadvantages of instructional technology in the community college classroom. *Community College Journal of Research and Practices*, 27, 473-484.

Atchade, P.J. (2002). A Qualitative Study of Distance Learners' Perceptions of Learning Computer Technology through Two Way Audio Video Conferencing and Online Instruction. *Dissertation*. Ball State University.

Bloom, B. S. (1956). *Taxonomy of educational objectives. Handbook I: Cognitive domain.* New York: David McKay.

Blose, R., & Fisher, D. (2003). *Effects of teachers school-level environment perceptions on changing elementary mathematics classroom environments.* Available online at: http://www.eric.ed.gov/PDFS/ED476659.pdf, last visited on 17.07.2011.

Bobbitt, J. F. (1918). *The Curriculum.* Boston: Houghton Mifflin.

Boling, N. C., & Robinson, D. H. (1999). Individual Study, Interactive Multimedia, or Cooperative Learning: Which Activity Best Supplements Lecture-Based Distance Education? *Journal of Educational Psychology.* 91(1), 169-174.

Brucklacher, B., & Gimbert, B. (1999). Role-Playing Software and WebQuests - What's Possible with Cooperative Learning and Computers. *Computers in the Schools, 15*(2), 37-43.

Burke, M., Guffey, S., Colter, S., & Riehl, J. (2003). *BioWebQuest: Evaluating the effectiveness of a "WebQuest" model of inquiry in a biology sequence for nonscience majors*. Available online at: http://itc.utk.edu/about/archives-/syllabus2003 _final, last visited on 17.07.2011.

Castillo, A. (2007). *The Effect of Computer-Based Authentic Assignments on Learners' Foreign Language Abilities and Intrinsic Motivation.* Available online at: http://wvuscholar.wvu.edu, last visited on 17.07.2011.

Chadwick, C (2002). Why Computers are Failing in the Education of our Children. *Educational Technology*. 35-40.

Clark, R. E. (1994). Media will never influence learning, Educational Technology *Research & Development*, 42(2), 21-29.

Clarke, K. (2005). *Focused seminar group teaching and learning: a more collaborative approach?* Learning and Teaching Projects 2003/ 2004, Centre for Learning and Teaching.

Conte, C. (1997). *The learning connection: schools in the information age.* Available online at: http://www.benton.org/publibrary/schools/connection.html, last visited on 17.07.2011.

Cooper, K. (2004). *Go with the Flow: Examining the Effects of Engagement Using Flow Theory and Its Relationship to Achievement and Performance in the 3-Dimensional Virtual Learning Environment of Second Life*. Available online at: http://www.dtic.mil, last visited on 17.07.2011.

Cuban.L. (1986). Teachers and Machines: The Classroom Use of Technology Since 1920. *Teachers Collage PrBrown, A & Green, T. (*2008). Issues ess.

Dale, Edgar (1946). *The "Cone of Experience".* Audio Visual Method in Teaching, NY: Dryden Press.

Dodge, B. (1995). WebQuests: A technique for Internet-based learning. *Distance Educator, 1*(2), 10-13.

Dodge, B. (1997). *Some thoughts about WebQuests.* Available online at http://webquest.sdsu.edu/about_webquests.html, last visited on 23.06.2011.

Dodge, B. (2001). Focus: Five rules for writing a great WebQuest. *Learning and Leading with Technology, 28*(8), 6-9.

Doolittle, P. E. (1997). Vygotsky's Zone of Proximal Development as a Theoretical Foundation for Cooperative Learning. *Journal on Excellence in College Teaching, 8*(1), 83-103.

Ezell, D., Klein, C., Hines, R. & Hall, S. (2003) *Using WebQuest with students with disabilities, Center On Disabilities, Proceedings: Technology and Persons With Disabilities Conference.* Available online at: http://www.csun.edu/cod/-conf/2003/proceedings/104.htm, last visited on 2.04.2011.

Faseyitan, S. C. & Hirschbuhl, J. (1992). Computers in university instruction: what are the significant variables that influence adoption, *Interactive Learning International,* 8(3).

Fiedler, R.L. (2002). *WebQuests: A critical examination in light of selected learning theories. Available online at:* http://www.portalwebquest.net/-pdfs/wqacritical.pdf, last visited on 05.08.2011.

Finn, J. (1960). Automation and Education, 3. Technology and the Instructional Process. *Audiovisual Communication Review, 8*(1), 5-26.

Flavell, J. H. (1976). *Metacognitive Aspects of Problem Solving*. In L. B. Resnick (Ed.), *The Nature of Intelligence* (pp. 231–236). Hillsdale, NJ: Erlbaum.

Frazee, J.P. (2004).*WebQuest Design Strategies: A case study measuring the effect of the jigsaw method on students' personal agency beliefs, engagement and learning.* Available online at: http://www.worldcat.org/, last visited on 05.06.2011.

Fulton, K., (1998). *Background paper for the expert anel on educational technology.* Available online at: http://www2.ed.gov/PDFDocs/paper.pdf, last visited on 05.08.2011.

Gagné, R. M. (1985). *The Conditions of Learning and Theory of Instruction* (4th ed.). New York, NY: Holt, Rinehart and Winston.

Gaskill, M., McNulty, A., & Brooks, D. W. (2006). Learning from WebQuests. *Journal of Science Education & Technology, 15*(2), 133-136.

Gentry, C. G. (1995). *"Educational Technology: A question of Meaning. Part 1 in Instructional Technology: Past, Present, and Future.* G. J. Anglin (Ed.), (2nd ed.), Englewood, CO, Libraries Unlimited.

Gillies, R.M. and Ashman, A.F. (2003). *Co-operative learning: The Social and Intellectual Outcomes of Learning in Groups*. London, UK: Routledge Falmer.

Glasenapp, G. (2005). *Developmentally appropriate practice. Monmouth: Teaching Research Institute, Western Oregon University.* Available at: www.tr.wou.edu/train/cdcDAP.htm, last visited on 07.07.2011.

Glennan, T. K. & Melmed, A. (1996) *Fostering the use of educational technology: elements of a national strategy* (Washington, DC, RAND). Available online at: http://www.ed.gov/, last visited on 07.07.2011

Green, K. C. & Gilbert, S. W. (1995) Great expectations: content, communications, productivity and the role of information technology in higher education. *Change.* 27(2), 8–12.

Grzega, J. (2005). Reflections on Concepts of English for Europe. Journal for EuroLinguistix 2, 44-64.

Gubacs, K. (2004). Project-based Learning: A Student-centered Approach to Integrating Technology into Physical Education Teacher Education. *Journal of Physical Education, Recreation & Dance.* 75(7), 33-43.

Gülbahar, Y., Madran, R. O., & Kalelioğlu, F. (2010). Development and Evaluation of an Interactive WebQuest Environment: "Web Macerası". *Educational Technology & Society*, 13 (3), 139-150.

Gülbahar, Y., Kalelioğlu, F., & Madran, R. O. (2008). Usability Evaluation of "Web Macerası" as an Instructional and Evaluation Method. *Ankara University Journal of Faculty of Educational Sciences*, 41 (2), 209-236.

Hammersley, M. (1996). The relationship between qualitative and quantitative research: Paradigm loyalty versus methodological eclecticism. In J. T. E.

Richardson (Ed.), *Handbook of qualitative research methods for psychology and the social sciences* (pp. 89-107). Leicester: BPS Books.

Hassanien, A. (2006). An evaluation of the webquest as a computer-based learning tool. *Research in Post-Compulsory Education.* Vol. 11, No. 2, pp. 235–250

Heinch, R.,Molenda M., Russell J., &Smaldino S. (1999). *Visual Principles Incom. Morivan. Instructional media and Technologies for Learning (6th ed.).* Columbus, OH: Prentice-Hall. 70-71.

Johnson, D., & Johnson, R. (1994). *Leading the cooperative school (2nd ed.).* Edina, MN: Interaction Book Company.

Kanuka, H., Rourke, L., & Laflamme, E. (2007). The influence of instructional methods on the quality of online discussion. *British Journal of Educational Technology,* 38(2), 260-271.

Knezevich, S.J., & Eye, G. G. (Eds.). (1970). *Instructional technology and the school administrator. American Association of School Administrators.* Available online at: http://www.eric.ed.gov/PDFS/ED044789.pdf, last visited on 07.07.2011

Kortecamp, K., & Bartoshesky, A. (2003, March). *WebQuest: An instructional tool that engages adult learners, promotes higher level thinking and deepens content knowledge.* Paper presented at the Society for Information Technology and Teacher Education International Conference 2003, Albuquerque, NM.

Köse, F. (2007). *Moving the WebQuest process from static to dynamic: Preservice teachers'experience with the dynamic WebQuest environment.* Available online at: http://etd.lib.metu.edu.tr/upload/12608554/index.pdf, last visited on 07.07.2011.

Leahy, M., & Twomey, D. (2005). Using web design with preservice teachers as a means of creating a collaborative learning environment. *Educational Media International,* 42(2), 143-151.

Lindenau, S. (1984). The teacher and technology in the humanities and arts. *MLJ,* 68, 119–124.

Lipscomb, G. (2003). "I Guess It Was Pretty Fun": Using WebQuests in the Middle School Classroom. *The Clearing House.* 76 (3), 152-155.

Maddux, C., & Cummings, R. (2004). Fad, fashion, and the weak role of theory and research in information technology in education. *Journal of Technology and Teacher Education,* 12(4), 511-533.

Maddux, C.D., & Cummings, R. (2007). WebQuests: Are they developmentally appropriate? *The Educational Forum*. Volume 71: 117-127

March, T. (2003). The learning power of WebQuests. *Educational Leadership,* 61(4), 42-47.

Mayer, R. (2003). *Learning and Instruction.* New Jersey: Pearson Education, Inc.

Michener, H. Andrew, John D. DeLamater, and Daniel J. Myers. (2004). *Social Psychology*. 5th ed. Belmont, CA: Wadsworth/Thompson Learning.

Milson, A.J. (2001, November). *Engaging students in historical inquiry using Internet resources*. Available online at: http://www.eric.ed.gov/PDFS/ ED-462360.pdf, last visited on 07.07.2011.

Milson, A. J. (2002). The Internet and inquiry learning: The integration of medium and method in a sixth grade social studies classroom. *Theory and Research in Social Education,* 30 (3), 330-353.

Molebash, P., Dodge, B., Bell, R., & Mason, C. (2002). *Promoting student inquiry: WebQuests to web inquiry projects (WIPs).* Paper presented at the Society for Information Technology and Teacher Education International Conference 2002, Nashville, TN.

Molenda, M. (2004). *The Definition of Educational Technology.* Available online at: http://www.indiana.edu/~molpage/Instruc_Technol_Encyclo.pdf, last visited on 07.07.2011.

Murray, R. (2006). WebQuests Celebrate 10 Years: Have they delivered? *Action Research Exchange,* 5(1).

National Association for the Education of Young Children. (1997). *Developmentally Appropriate Practice in Early Childhood Programs.* Washington, DC: NAEYC.

O'Donoghue, T., Punch K. (2003). *Qualitative Educational Research in Action: Doing and Reflecting.* Routledge. p.78.

Owston, R.D. (1997). The World-Wide-Web: a technology to enhance teaching and learning*? Educational Researcher*, Vol. 26 (2), 27-32.

Perkins, R. & Mcknight, M.L. (2005). Teachers' Attitudes toward WebQuests as a Method of Teaching. In Maddux C.D., &Johnson D.L. (Eds.), *Internet Applications of Type II Uses Of Technology in Education* (pp.123-133). United States: The Haworth Pres, Inc.

Piaget, J. P. (1952). *The origins of intelligence in children*. International Universities Press, New York.

Popham, J. A. & Wentworth, N. (2003).Train the Trainer: Developing a WebQuest Workshop. In D.A. Willis, N. Davis, & J. Price (Eds.), *Society for Information Technology & Teacher Education Annual: Vol. 5. (pp. 3768-3774).* Norfolk: Association for the Advancement of Computing in Education.

Prapinwong, M. (2008). *Constructivist Language Learning through WebQuests in the EFL Context.* Available online at: http://i3.makcdn.com/wp-content/blogs.dir//121285/files//2011/05/cnostructivism-n-web-quest.pdf, last visited on 07.07.2011.

Puthikanon, N. (2009). *Examining Critical Thinking and Language Use through the Use of WebQuests in an EFL Reading Class.* Available online at: http://gradworks.umi.com/33/90/3390298.html, last visited on 07.07.2011

Reiser, R.A. (2002). What field did you say you were in? Defining and naming our field. In Reiser, R.A., & Dempsey, J.A. (Eds.*), Trends and issues in instructional design and technology.* (p. 5-12). Upper Saddle River, New Jersey : Merrill/Prentice Hall.

Roblyer, M. D., & Edwards, J. (2000). *Integrating educational technology into teaching. (2nd ed.).* Columbus, Ohio: Prentice-Hall/Merrill College Publishing Company.

Roblyer, M. D., & Knezek, G. (2003). New millennium research for educational technology: A call for a national research agenda. *Journal of Research on Technology in Education, 36*(1), 60-71.

Rosenkranz, J.K.F. (1899 ). The Philosophy of Education. D. Appleton and Co.

Saetler, P. (1990). *Beginnings of a science and technology of instruction: 1900-1950. Ch 3 in In the evolution of American Educational Technology.* Englewood, CO: Libraries Unlimited, (53-86).

Saetler, P. (1990).*Early forerunners: Before 1900. Ch 2 in In the evolution of American Educational Technology* (23-52). Englewood, CO: Libraries Unlimited

Salaberry, R. (2001). The Use of Technology for Second Language Learning and Teaching: A Retrospective. *The Modern Language Journal,* 85. 39-56.

Seels, B. & Richey, R. C. (1994). Instructional technology: the definition and domains of the field, *Association for Educational Communications and Technology*, Washington DC.

Şen, A., and Neufeld, S. (2006). In pursuit of alternatives in ELT methodology: WebQuests. *The Turkish Online Journal of Educational Technology- TOJET January 2006 ISSN: 1303-6521* volume 5 Issue 1: 49-67

Sharp, V. F. (2004). *Computer education for teachers: Integrating technology into classroom teaching*, 5th ed. Boston, MA: McGraw-Hill.

Stahl, R. J. (1994). *The Essential Elements of Cooperative Learning in the Classroom.* Available online at: http://www.ericdigests.org/, last visited on 09.08.2011.

Starr, L. (2000). *Meet Bernie Dodge - the Frank Lloyd Wright of learning environments! Education World.* Available at: http://www.education-world.com/, last visited on 09.08.2011.

Strickland, J. (2005). Using WebQuests to teach content: Comparing instructional strategies. *Contemporary Issues in Technology and Teacher Education, 5*(2), 138-148.

Strudler, N. (2003). Answering the call: A response to Robyler and Knezek. *Journal of Research on Technology in Education, 36*(1), 72-76.

Tsai, S. (2006). Students' Perceptions ofEnglish Learning through EFL WebQuest. In E. Pearson & P. Bohman (Eds.), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2006* (pp. 1531-1536). Chesapeake, VA: AACE.

Vygotsky, L.S. (1978). Mind and society: The development of higher mental processes. Cambridge, MA: Harvard University Press.

Yazıcı, C. (2009). *Evaluation of a Computerized Language Learning Architecture at University Level: A Case Study.* Available online at: http://etd.lib.metu.edu.tr-/upload/12610604/index.pdf, last visited on 09.08.2011

Yıldırım, A. & Şimşek, H. (2000). Sosyal bilimlerde nitel araştırma yöntemleri [Qualitative research methods in social sciences]. Ankara: Seçkin Yayıncılık.

Zheng, R., Stucky, B., McAlack, M., Menchana M., & Stoddart, S. (2005). WebQuest learning as perceived by higher-education learners. *Techtrends.* Volume 49, Number 4.

# APPENDIX A

## THE EFFECTIVENESS OF WEBQUEST PROJECT QUESTIONNAIRE

### Web Macerası Uygulamasına İlişkin Etkililik Anketi

Bu çalışma, Web Macerası sitesine ilişkin kişisel düşüncelerinizi almak amacıyla tasarlanmıştır. Verdiğiniz yanıtlar Orta Doğu Teknik Üniversitesi Bilgisayar ve Öğretim Teknolojileri Eğitimi Bölümü'ndeki bir yüksek lisans tez çalışması kapsamında kullanılacak ve gizli tutulacaktır. Araştırmaya yaptığınız katkılardan dolayı teşekkür ederiz.

*Web Macerası Geliştirme © 2011*

### 1.KİŞİSEL BİLGİLER

Adınız ve soyadınız:
Cinsiyetiniz: □ Kadın □ Erkek
Hazırlık Sınıfı Kurunuz: □ A1 □ A2 □ B □ D
İngilizce Dil Seviyeniz: □ Başlangıç □ Orta □ İleri
Bölümünüz: _____
Yaşınız: _____
Kişisel bilgisayarınız var mı?: □ Evet
□ Hayır
Kaç yıldır bilgisayar kullanıyorsunuz? :
□ 1 yıldan az □ 1-2 yıl □ 3-4 yıl □4 yıldan fazla

İnternete nereden erişim sağlıyorsunuz?

□ Okul □ Ev □ Yurt □ İnternet Cafe □ Diğer

Günlük Internet kullanım süreniz ne kadar?

□ 1 saatten az □ 1-2 saat □ 2-3 saat □ 3 saatten fazla

Daha önce "Web Macerası" deneyiminiz oldu mu?: □ Evet □ Hayır

## 2. WEB MACERASI SİTESİNİN TASARIMINA İLİŞKİN GÖRÜŞLER

Aşağıdaki soruları yalnızca Web macerası sitesinin tasarımını düşünerek yanıtlayınız. Lütfen her bir maddeyi dikkatle okuyarak sizin için en uygun olduğunu düşündüğünüz seçeneği işaretleyiniz.

| **GENEL TASARIM (Web sitesinde yer alan sayfalar açısından yanıtlayınız.)** | Kesinlikle Katılıyorum | Katılıyorum | Kararsızım | Katılmıyorum | Kesinlikle Katılmıyorum |
|---|---|---|---|---|---|
| 1. Ekran tasarımı görsel olarak etkileyicidir. | | | | | |
| 2. Kullanılan görsel öğeler içerikle tutarlıdır. | | | | | |
| 3. Görsel öğeler kullanıcıya bilgi vermektedir. | | | | | |
| 4. Ekran etkili bir şekilde kullanılmıştır. | | | | | |
| 5. Sayfaların tasarımında kullanılan renkler uyumludur. | | | | | |
| 6. Sayfalarda okunabilirlik sorunu **yoktur**. | | | | | |
| 7. Sayfa öğelerinin hizalanmasında sorun **yoktur**. | | | | | |
| 8. Öğelerin sayfa içerisinde dağılımı dengelidir. | | | | | |
| 9. Tıklanabilir olan alanlar dikkat çekmektedir. | | | | | |

| **DİLBİLGİSİ (Web sitesinde yer alan sayfaların <u>içeriği</u> açısından yanıtlayınız.)** | Kesinlikle Katılıyorum | Katılıyorum | Kararsızım | Katılmıyorum | Kesinlikle Katılmıyorum |
|---|---|---|---|---|---|
| 10. İmla hataları **<u>bulunmamaktadır</u>**. | | | | | |
| 11. Dilbilgisi hataları **<u>içermemektedir</u>**. | | | | | |
| 12. Site içerisinde kullanılan dil öğrencilerin dil seviyesine uygundur. | | | | | |
| 13. Anlaşılması zor, teknik ifadeler **<u>yer almamaktadır</u>**. | | | | | |
| **GEZİNTİ (Web sitesinde yer alan sayfalar açısından yanıtlayınız.)** | Kesinlikle Katılıyorum | Katılıyorum | Kararsızım | Katılmıyorum | Kesinlikle Katılmıyorum |
| 14. Çalışmayan bağlantı (link) **<u>bulunmamaktadır</u>**. | | | | | |
| 15. Bağlantılar (linkler) yeni bir sayfada açılmaktadır. | | | | | |
| 16. Yönlendirme tuşları farklı ekranlarda aynı yer ve fonksiyonda kullanılmıştır. | | | | | |
| 17. Site içerisinde kaybolmadan gezilebilmektedir. | | | | | |
| **TEKNİK PROBLEMLER (Web sitesinde yer alan sayfalar açısından yanıtlayınız.)** | Kesinlikle Katılıyorum | Katılıyorum | Kararsızım | Katılmıyorum | Kesinlikle Katılmıyorum |
| 18. Sayfalar hızlı yüklenmektedir. | | | | | |
| 19. Sayfalar eklenti (plug-in) gerektirmeden kullanılabilmektedir. | | | | | |
| 20. Yaptığım değişiklikler sorunsuz bir şekilde sisteme kaydedilebilmektedir. | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 21. Sayfalar hatasız çalışmaktadır. | | | | | |
| 22. Kullanıcı adı ve şifre kullanılarak sorunsuz bir şekilde sisteme giriş yapılabilmektedir. | | | | | |

## 3. WEB MACERASI PROJESİNİN ADIMLARINA İLİŞKİN GÖRÜŞLER

| **GİRİŞ** | Kesinlikle Katılıyorum | Katılıyorum | Kararsızım | Katılmıyorum | Kesinlikle Katılmıyorum |
|---|---|---|---|---|---|
| 23. Giriş kısmı, projenin amacını yansıtmaktadır. | | | | | |
| 24. Proje konusu ilgi çekicidir. | | | | | |
| 25. Giriş kısmında, projede ne yapılması gerektiği yeterince açık şekilde belirtilmektedir. | | | | | |
| 26. Projenin kapsamı, dersin kazanımları ile tutarlıdır. | | | | | |
| **İŞLEM** | Kesinlikle Katılıyorum | Katılıyorum | Kararsızım | Katılmıyorum | Kesinlikle Katılmıyorum |
| 27. İşlem kısmı, projede istenileni açık bir biçimde ifade etmektedir. | | | | | |
| 28. Proje, bilgiyi farklı şekillerde yorumlamayı gerektirmektedir. | | | | | |
| 29. Proje kapsamında dil öğrenimime katkıda bulunacak bir ürün oluşturma istenmektedir. | | | | | |
| 30. Proje kapsamındaki roller veya işlemler farklı bakış açısına sahip olmayı gerektirmektedir. | | | | | |

| **SÜREÇ** | Kesinlikle Katılıyorum | Katılıyorum | Kararsızım | Katılmıyorum | Kesinlikle Katılmıyorum |
|---|---|---|---|---|---|
| 31. Süreç adımları, verilen zaman diliminde tamamlanabilecek biçimde düzenlenmiştir. | | | | | |
| 32. Her bir adım açık ve net bir biçimde ifade edilmiştir. | | | | | |
| 33. Süreç kısmında sorun yaşandığında dersi veren öğretim elemanından yardım alınabilmektedir. | | | | | |
| 34. Sürecin adımları; bilgi, kavrama, uygulama, analiz, sentez, ve değerlendirme basamaklarını kapsamaktadır. | | | | | |
| **KAYNAKLAR** | Kesinlikle Katılıyorum | Katılıyorum | Kararsızım | Katılmıyorum | Kesinlikle Katılmıyorum |
| 35. Proje süresince ihtiyaç duyulan bilgiler için eklenen kaynaklar yeterlidir. | | | | | |
| 36. Web adresleri, siteyi tanımlayan bilgilerle birlikte verilmiştir. | | | | | |
| 37. Kaynaklar, proje ile ilgili bilgileri içermektedir. | | | | | |
| 38. Kaynaklar öğrencilerin dil seviyesine uygundur. | | | | | |
| **DEĞERLENDİRME** | Kesinlikle Katılıyorum | Katılıyorum | Kararsızım | Katılmıyorum | Kesinlikle Katılmıyorum |
| 39. Her görevin puanlaması açıkça ifade edilmiştir. | | | | | |
| 40. Öğrenci, performansına ilişkin geri dönüt alabilmektedir. | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 41. Değerlendirme kriterleri kazandırılması hedeflenen bilgi ve becerileri ölçmektedir. | | | | | |
| **SONUÇ** | Kesinlikle Katılıyorum | Katılıyorum | Kararsızım | Katılmıyorum | Kesinlikle Katılmıyorum |
| 42. Sonuç bölümü, süreçte yaşananları özetlemektedir. | | | | | |
| 43. Sonuç bölümü, öğrenciyi gerçek yaşamda karşılaşılabilecek durumlara hazırlamaktadır. | | | | | |
| 44. Sonuç bölümünde verilen mesaj öğrencilere geldikleri nokta hakkında açıklayıcı bilgi vermektedir. | | | | | |

Aşağıdaki soruları Web Macerası projenizin adımlarını düşünerek yanıtlayınız. Lütfen her bir maddeyi dikkatle okuyarak sizin için en uygun olduğunu düşündüğünüz seçeneği işaretleyiniz.

## 4. WEB MACERASI HAKKINDA GÖRÜŞLER

Aşağıdaki soruları Web Macerası projenizi tamamlama sürecinde yaşadıklarınızı düşünerek yanıtlayınız. Lütfen her bir maddeyi dikkatle okuyarak sizin için en uygun olduğunu düşündüğünüz seçeneği işaretleyiniz.

| | Kesinlikle Katılıyorum | Katılıyorum | Kararsızım | Katılmıyorum | Kesinlikle Katılmıyorum |
|---|---|---|---|---|---|
| 1. Bu proje beni araştırmaya yöneltti. | | | | | |
| 2. Projeyi tamamlama sürecinde zaman sorunu yaşamadım. | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 3. Kendimi grup çalışması için uygun buluyorum. | | | | | |
| 4. Projeyi yürütürken öğretim elemanından yardım almaya hiç gerek **duymadım**. | | | | | |
| 5. Web macerasına üye olan katılımcıların katkılarına değer verdim. | | | | | |
| 6. Bilgilerimi diğer katılımcılarla paylaştım. | | | | | |
| 7. Proje tamamlama sürecinde diğer katılımcıların fikirlerine saygı gösterdim. | | | | | |
| 8. Proje süresince yaratıcı fikirler ürettim. | | | | | |
| 9. Diğer katılımcılara hatalarını bulmaları konusunda yardımcı oldum. | | | | | |
| 10. Web macerası projesini hiç zorlanmadan tamamladım. | | | | | |
| 11. Web Macerası projesi diğer katılımcılarla işbirliği yapma isteğimi artırdı. | | | | | |
| 12. Web Macerası projesi hayal gücümü kullanmamı sağladı. | | | | | |
| 13. Web Macerasına katılmak beni derse karşı olumlu yönde motive etti. | | | | | |
| 14. Web Macerası projesini yapmak, dersle ilgili konuları anlamama yardımcı oldu. | | | | | |
| 15. Web Macerası öğrenim kazanımlarına ulaşmamda etkili oldu. | | | | | |
| 16. Proje tabanlı öğrenme, bireysel çalışmaya göre daha verimlidir. | | | | | |
| 17. Bu dersin projesini web destekli yürütmek hoşuma gitti. | | | | | |
| 18. Web Macerası, genel olarak yabancı dil öğrenimime katkıda bulundu. | | | | | |
| 19. Web Macerası Projesi yabancı dilde okuma becerilerimi geliştirmeme yardımcı oldu. | | | | | |

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|---|---|---|---|---|---|
| 20. Web Macerası Projesi yabancı dilde yazma becerilerimi geliştirmeme yardımcı oldu. | | | | | |
| 21. Proje daha önce öğrendiğim İngilizce dil bilgisi kurallarını pekiştirmeme yardımcı oldu. | | | | | |
| 22. Proje yabancı dilde yeni kelimeler öğrenmeme olanak sağladı. | | | | | |

## 5. WEB MACERASI HAKKINDA GENEL GÖRÜŞLER

| |
|---|
| 1. Web Macerası projesi sürecinde planlı ve yönlendirilmiş bir şekilde çalışmak sizi nasıl etkiledi? Lütfen görüşlerinizi belirtiniz. |
| 2. Web Macerası projesini yürütürken sorunlarla karşılaştınız mı? Yanıtınız EVET ise, sorunları belirtiniz. |
| 3. Siz de gelecek yaşantınızda Web Macerası projelerini öğretim amaçlı kullanmayı düşünür müsünüz? Lütfen nedenini açıklayınız. |
| 4. Bu projenin sizin gerçek hayatta karşılaşabileceğiniz benzer durumlarda size yardımcı olacağını düşünüyor musunuz? Neden ve nasıl? |
| 5. Web Macera projesinin en beğendiğiniz 3 özelliği nedir? |
| 6. Web Macera projesinin en beğenmediğiniz 3 özelliği nedir? |

| |
|---|
| 7. Sizce web macerası sitesine ne eklenirse daha etkili ve kullanışlı olur? Önerilerinizi belirtiniz. |
| 8. Proje tabanlı dil öğretimi yönteminin Web ile desteklenmesi hakkındaki görüşlerinizi belirtiniz.<br><br>a. Öğretim sürecine katkısı açısından:<br><br>b. Diğer: |

Anketi yanıtlayarak çalışmamıza katkıda bulunduğunuz için çok teşekkürler. ☺

# APPENDIX B

## INTERVIEW QUESTIONS

| |
|---|
| How did studying in a planned and guided way affect you during the project? Please give your opinions. |
| Did you encounter any problems while completing the WebQuest project? If your answer is YES, mention these problems. |
| Do you think about using the WebQuest technique in your future professions if needed? Please give your reasons. |
| Do you think that this project will help you in real-life situations similar to the scenario of the task? Why and how? |
| Which three characteristics of the WebQuest project do you favor most? |
| Which three characteristics of the WebQuest project do you favor least? |
| What do you suggest to make the WebQuest site more effective and useful? What are your suggestions? |
| Please explain your opinions about supporting project-based language learning with the Internet.<br>a. In terms of your achievement and performance at school:<br>b. Other: |