

## Using the Internet as an Analytical Tool in ELT: WebQuests for Children

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### Abstract

This article introduces the concept of WebQuest and presents the advantages of using it with children who are learning English as a foreign language. First, the author discusses why it is necessary to incorporate this tool into classes in order to help children achieve their language learning goals. After providing a definition, the author provides a specific example of a WebQuest that she created and used with her students. The author also discusses the essential parts of a WebQuest, where to find prepared WebQuests on the Internet, how to evaluate them, and how to adapt them to specific contexts.

Este artículo introduce el concepto de *WebQuest* (Búsqueda en la Red) y presenta las ventajas al utilizarlo con niños que están aprendiendo inglés como lengua extranjera. Primero, la autora discute por qué es necesario incorporar esta herramienta en las aulas para ayudar a los niños a alcanzar sus metas en el aprendizaje de esta lengua. Después de definir el concepto, la autora da un ejemplo específico de una Búsqueda en la Red que ella creó y utilizó con sus estudiantes. También, la autora discute las partes esenciales de una Búsqueda en la Red, dónde encontrar Búsquedas en la Red preparadas en el Internet, cómo evaluarlas, y cómo adaptarlas a contextos específicos.

### Introduction

In these modern times, it is almost impossible to conceive a class without the use of some sort of digital technology; electronic blackboards which were recently installed in elementary school classrooms (sixth and fifth grade) are a good sample of it. Computers can be very useful for teachers once we become skillful in using them. It is not too complicated; however, some educators are still having a hard time when working with them. But the twenty first century is here, so we'd better adapt our teaching to the new digital technologies.

The way we incorporate computers to our language classes efficiently will depend on the training courses that language teachers have taken and their willingness to try present-day digital technologies. Ideally a language instructor should be trained in one or more full courses in CALL (Computer Assisted Language Learning). There is a vast amount of resources, tools, and activities on the web to incorporate into our teaching: blogs, hotlists, scrapbooks, electronic portfolios, electronic mails, videos, audios, pictures, and WebQuests, which I personally found very useful and attractive to children.

The purpose of this article is to present many of the advantages of using WebQuests with children who are learning English as a foreign language. First, I will discuss why it is necessary to incorporate this tool into classes in order to help children achieve their language learning goals. For some educators, the concept of a WebQuest might be new. For this reason, I will provide a definition according to its creator, Bernie Dodge. One of my goals is to make my presentation of

Webquests more understandable and clearer. Hence, I will provide a specific example of a WebQuest I created and used with my students. I will also discuss the essential parts of a WebQuest, where to find prepared WebQuests on the Internet, how to evaluate them, and how to adapt them to your specific context.

### **Working with Young Children**

Getting a child's attention and keeping him or her consistently motivated is hard. The question then is how to get and keep their attention. Children get bored easily with the same kind of tasks. Schoolwork has usually included fill-in-the-blank exercises, matching columns, puzzles, and so forth. Our children's natural ability to explore and create could decrease because of our rudimentary teaching techniques. It does not mean that the traditional way of teaching is entirely wrong. This is how many of us were instructed and finally learned a second language, but what if things could become more interesting for students?

Children like everybody else, differ in their ways of learning. Each individual has different learning styles like visual, auditory, tactile, and more. It is important to satisfy all this variety when teaching. Children are always expecting something new and interesting to do in the classroom, and they demand everyday a new way to work and to interact with their classmates. We can expand our way of working by making use of digital technology. This will satisfy our children's interests and needs and provide them with learning experiences that are varied and meaningful. Indeed, the Internet is a very powerful tool. Once we know how to take advantage of what it has to offer, there is an immense world of authentic material that can be used to enhance our teaching.

It is amazing to see how well digital technology works with children. To illustrate this, I would like to share an experience of my own. Not very long ago, I had the opportunity to work with a group of elementary school students. Some of them had discipline problems. There was one particular student who was not interested in the class. His attitude changed when we worked at the computer lab. The reaction of the rest of the children was positive when they noticed that that something new would be incorporated into their lessons. The attention that was needed for the class had finally been achieved. Their performance and interest in the class got better, especially for this child who became one of my best students later in that year.

### **Defining a WebQuest**

Although Webquests have recently gained popularity, they have been around since the early days of the internet. Dodge (2007) gives the following definition: "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." Starr (2007) adds that

*A WebQuest is built around an engaging and doable task that elicits a higher order thinking of some kind. It's about doing something with information. The thinking can be creative or critical, and involve problem solving, judgment, analysis, or synthesis. The task has to be more than simply answering questions or regurgitating what's on the screen. Ideal-*

*ly, the task is scaled down version of something that adults do on job, outside school walls.*

In other words, a WebQuest is attractive in many different ways; for instance, students can make use of resources on the Internet, which are original and accessible. Also, there are different types of files like videos, audio clips and charts. Each of the parts included in a WebQuest have a specific purpose that helps students to awaken their sense of independence in learning a second language.

Some of the main characteristics of a WebQuest are that they are interactive, visually friendly and interesting. Students have many options to choose from like where and when to work on something and which links they would like to explore. As it was mentioned before in the introduction, most elementary sixth and fifth grade classrooms in our schools have a computer, equipped with the well known *Enciclomedia*, which allows teachers to conduct their classes more effectively due to the different tools that are integrated in *Enciclomedia*. Even in a classroom with only one computer, a teacher may be able to make use of WebQuests in a collective way, having the students complete the different tasks assigned in the WebQuest, in which the students can be asked to work in groups or teams (Adell, 2004). Other schools have more facilities and they have a computer lab that can be used for the class. In this case, students can work individually or pairs.

Basically there are two types of WebQuests: short term and long term. Each type is defined according to the time it will take the students to go through the entire process.

1. *Short term WebQuests*: The objective is to acquire and integrate knowledge; it is usually carried out in one or four sessions.
2. *Long term WebQuests*: In this type of WebQuest, students have to put into practice some cognitive processes such as comparison, analysis, classification, and others. It usually takes longer than four sessions.

In the following section, I will provide an example of my own work in this area, designing a short-term WebQuest for children in elementary school.

### **An Example of a WebQuest**

After making the decision to use WebQuests, we have to start designing one that will fit to our needs. Even before starting a project with WebQuests, the best thing to do is to analyze the syllabus that you are teaching and try to make connections with the topics you are covering in your class. In this way, your WebQuest will not be isolated or disconnected from your overall class objectives. It also shows how willing you are to promote innovation in teaching a second language to children. For instance, based on the content of the syllabus of my English course, specifically the unit on "workers and occupations of community servers," I designed a WebQuest where my students would find the vocabulary and grammatical structures related to this unit of study.

The topic in the following example is science. My students explored and investigated about how some experiments can be done. Some of these experiments were "the colors of a rainbow," "the magic comb," and "how sound travels." They had the chance to observe, classify, and compare and contrast the different ele-

ments involved when doing the activities. In this WebQuest, they made use of their previous knowledge about colors, shapes, and the five senses. They also took note of the new vocabulary learned while performing the tasks. Students were asked to present their research to the class, either using construction paper or power point presentations. This task was completed in pairs; therefore, collaborative work was promoted. The use of WebQuests is an effective path to promote autonomy in our children, catch their attention, and work with enthusiasm.

Here is my WebQuest on science. In figure 1, you will see the introductory part of my WebQuest. In figures 2 and 3, you will see a couple of the websites visited by my students. The sites that children visited are listed in the Resources Section.

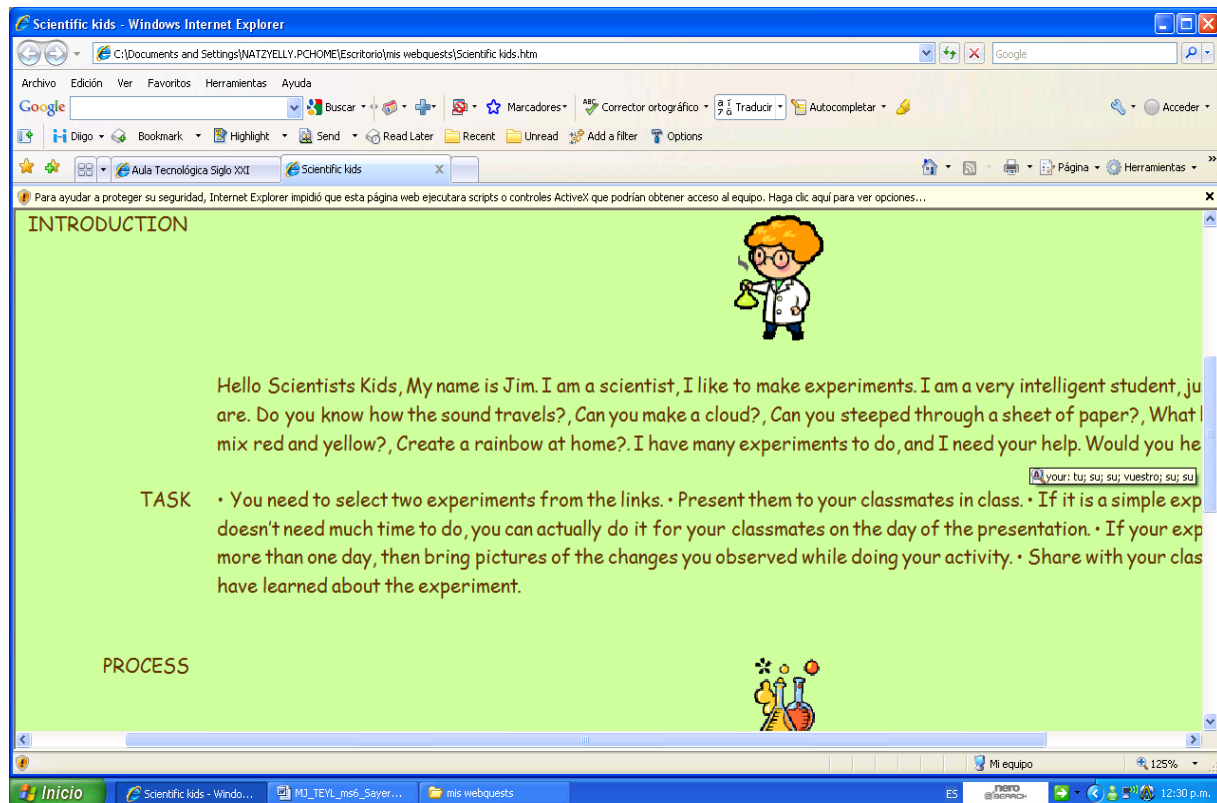


Figure 1. The Introductory Part of my WebQuest.

Webquests can provide a hands-on experience. In many ways, it will be easier for the learners to make use of what they have learned by doing the activities. It is also very important to keep our students motivated through the entire process of the tasks in the WebQuest. Let's keep in mind that motivation is a crucial factor that allows the learners to go on with their activities. In addition, successful WebQuests must have essential components. I will discuss these in the following section.

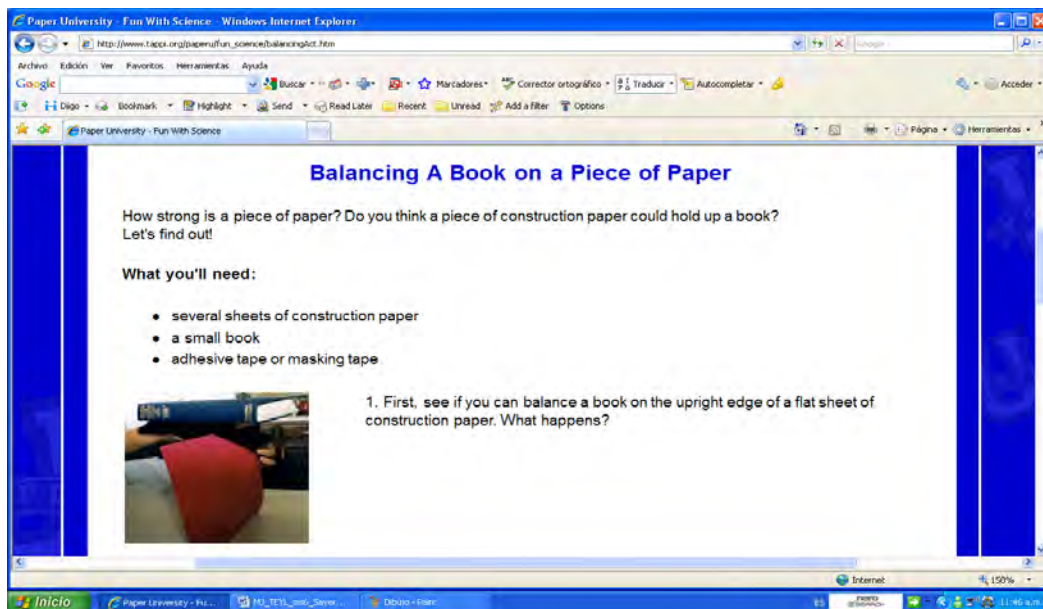


Figure 2. A Website Visited by my Students.



Figure 3. Another Website Visited by my Students.

### Essential Parts of a WebQuest

There are six important parts in every WebQuest. They are the following:

1. *Introduction*. The background and the students' roles are provided in this section. An overview of the learning goals is also displayed for them. Write the big

question here: what it is that learners are expected to do or to solve. How can we be sure that we have a good question for students? First, it should not simply include a “yes” or “no” question, but one that will require the student to do some research and analysis. Second, we need to make sure that our big question will allow the learners to demonstrate their learning in a variety of ways. In the WebQuest on experiments that I presented earlier, the introduction was elaborated with questions that allowed students to gain some previous knowledge of the activities to come. This gave them an idea of what they were supposed to do. In my WebQuest the following was the introduction:

*Hello Scientists Kids. My name is Jim. I am a scientist, I like to make experiments. I am a very intelligent student, just like you are. Do you know how the sound travels? Can you make a cloud? Can you see through a sheet of paper? What happens if you mix red and yellow? Can you create a rainbow at home? I have many experiments to do, and I need your help. Would you help me?*

2. *Task.* In this part, the teacher explains in a formal way what the students will accomplish. We have to keep in mind that providing a clear objective for the task is an essential part of creating an interesting WebQuest for the students to complete; otherwise, our purpose will get lost. Having a good project to work with is very important. The task in the WebQuest was to select two experiments and present them to the class and share with them what they had learned. The following is the example of the task in my WebQuest:

*You need to select two experiments from the links. Present them to your classmates in class. If it is a simple experiment that doesn't need much time to do, you can actually do it for your classmates on the day of the presentation. If your experiment needs more than one day, then bring pictures of the changes you observed while doing your activity. Share with your class what you have learned about the experiment.*

There are other task types that you could incorporate into your WebQuest. Some types of tasks are the following:

- Retelling: Students report on what they have learned.
- Compilation: Students compile information from different sources, put it together, and publish it on the web.
- Mystery: Children absorb information from different sources and put it together by making inferences.
- Consensus Building task: Students take information from different resources with a different perspective on a topic.
- Persuasion: Used to persuade someone to agree with an opinion.
- Analytical: Students look for differences and similarities, relationships, or cause and effect, and discuss their meaning.
- Scientific: Children observe how events take place.

3. *Process.* Here the teacher explains the steps the learners are to follow in order to accomplish the task. Links are also included in this section as well as files, templates, graphic organizers, and others ways of scaffolding. In this section, students work together to solve a task by using different techniques according to their learning style. In my WebQuest, the students were provided with a list of

websites (listed in the Resources Section) and they selected different experiments and followed the instructions. They worked in pairs and filled a chart (see chart 1) with the characteristics of the experiments.

Student's name:					
Name of the experiment	Material used	Steps followed	Observations	New vocabulary	Time
Name of the experiment	Material used	Steps followed	Observations	New vocabulary	Time

Chart 1. Sample of the Chart Used by my Students.

4. **Resources.** Websites, printed resources, videos, and all kind of resources that learners will need to complete the task are included in this section. Some links to work with are also included in the previous section (process).

5. **Evaluation.** Every WebQuest needs a rubric, keeping in mind that standards are to be fair, clear, consistent and specific to the task. Chart 2 is the rubric that I used for my science WebQuest,

Category	Poor	Needs improvement	Good job!	Outstanding!
Presentation of the experiment	No presentation was apparent or important details were overlooked. No physical evidence of the experiment.	Students provided a presentation with some reference to the experiment selected Some elements of the experiment were presented to the class.	Students provided a somewhat detailed presentation clearly based on the experiment.	Students provided a detailed presentation clearly based on the experiment Use of power point presentation
Team work	It was difficult to work in pairs. Members did not work together at any time of the experiment.	Only one member of the duet participated. No parents involved in the process.	Only students participated, no parents' assistance.	Both students participated. Parents formed part of the group work.
Things discovered	No new interesting things were found by any of the members of the team	Very few things were new and caused interest in the members of the team.	Few things were new and fascinated the member's attention. Some words new for the member	Many things discovered by team. They seemed very interested all the time. Lots of vocabulary learned with the experiments.

Chart 2. Rubric Used for my Science Webquest.

6. **Conclusion.** This is the wrap up section, which allows the learners to reflect about what they have just learned. You can include a rhetorical question or extra link for the student in case they want to increase their knowledge about the topic.

Remember the task itself is the most important part in a WebQuest design, and therefore it is essential to take some quality time exploring our possibilities and options that we have.

## Where to Find Prepared WebQuests

As we have seen, we have to make sure our WebQuest has essential parts in order to create a successful WebQuest. To elaborate one from scratch is something that some people might find difficult, especially if a person is not very skillful in working with technological resources or if having the time to do so is an issue.

Therefore, adapting a WebQuest similar to the one we have presented would be the best option in order to solve these problems. There is a great number of WebQuests in existence out on the Internet. Once we decide which sample to use, we have to give credit to the author of the WebQuest. In the Resources Section, you will find a collection of WebQuests to adapt to your own needs. Once you find a WebQuest that fits your need, try to complete the tasks yourself. Pay attention to the structure of the WebQuests. In the following section, I will discuss how to adapt the WebQuest you find on the Internet in order to meet the specific needs of your class.

## How to Adapt Existing WebQuests

Creating a WebQuest from scratch is not impossible, but can be rather difficult. The lack of time for finding the appropriate links, making rubrics for evaluating students, designing the tasks, and putting everything together are some of the issues that might interfere when making a WebQuest. Fortunately, the Internet has enough samples to choose from, but we have to be careful when selecting one in particular in order to adapt it to our needs. The following are the steps that you will need to follow in order to select and adapt a WebQuest from the Internet:

*Step 1. Choose a topic.* The main thing is to keep in mind the goal that you have to achieve or better said the goal you want your students to reach. This can be done by looking on the Internet for some topics included in the syllabus of the course you are teaching, according to the kids' grade. For instance, sixth grade elementary school students could compare and contrast the country and the city. In addition, other content areas can be used such as art, mathematics, social studies and more. In other words, choose a topic that you think will be easy to find on the web and above all, a topic that will encourage and help your students to reflect on their learning, to solve problems, to be creative, and to analyze the results obtained.

*Step 2. Search for existing WebQuests.* This is one of the most time consuming activities for a teacher to do when designing a WebQuest, since there are thousands of examples with the same topic. Finding a good site that includes WebQuests to choose from might take more time than you expected. However, I have surfed the net and been able to find some great sites with WebQuests that can be easily used in teaching English to children in elementary school. Two sites for primary level are listed in the Resources Section.

At these sites, you will find a wide selection of WebQuests organized by topic, alphabet, animals, color, body, health, numbers, and nutrition among other topics. Some of these are the same topics that are included in the English textbooks in the state of Tamaulipas for the elementary English program. They also fit into the topics that are covered in kindergarten education. You might be lucky and



find a WebQuest that will include exactly what you were looking for. If that is the case, then go ahead and use it as is.

*Step 3. Select WebQuests with high potential only.* Once you think you have found what you were looking for or something that gets close to your expectations, then the WebQuest has to be fixed or used as it was found. It is important to check that it includes certain qualities; for instance, links that are working, pages that are free of spelling mistakes or grammatical errors, and attractive designs. Make sure that the task is engaging and requires higher level thinking, the topic fits with your goal, and it matches with your students' interests and needs.

*Step 4. Identify changes needed.* The next step is to check the entire WebQuest for parts that you think need to be modified or improved. For this purpose, you can use the table of rubrics to evaluate a WebQuest developed by Dodge (2001). This table focuses on the main parts of a WebQuest that I previously discussed. It can be easily adapted for different situations. According to this format, a perfect score on the rubric is 50 (see the complete table in Appendix A).

*Step 5. Download, modify and enhance.* So far, the WebQuest that best meets our needs has been selected. Now it is important to ask the author's permission to use some of her work. This can be done by contacting her by email and explaining the purpose of your work. After getting permission, you can download the WebQuest. If it is a simple one you can just copy and paste the page to the editor of your choice (Microsoft Office, Adobe Acrobat). For complex web documents use specialized software to capture the pages. For example, for Windows there are Winweb, Offline Commander, and HTTPTrack. Once you consider that all the pieces are together and you are ready to work on your own WebQuest, you can modify it according to your personal needs. You can change the graphics, the rubrics, the design of the WebQuest and the tasks, and anything that needs to be changed. In the Resources Section, I have listed a link with several WebQuest design patterns.

This site classifies the patterns according to the highest levels of Bloom's taxonomy: design, decide, create, analyze and predict.

*Step 6. Evaluate and revise.* Most of the hard work has been done. Before we publish our work, it is important to have a second opinion. Ask someone else in your working context to take a look at your work and make some comments on the parts of the WebQuest. Take notes and make the changes. Or you can do it yourself by checking the WebQuest Evaluation Rubric (Appendix A).

*Step 7. Publish and share.* Congratulations, your work is almost done! The last thing to do is get it published, so your students can have access to it. I have listed several free publishing sites in the Resources Section.

## **Conclusion**

In this article, I have explained what a WebQuests is and how the implementation of such a wonderful tool, as part of our lesson, could help students engage in meaningful language learning. A WebQuest is also a tool which promotes collaborative work among students, approaches problem solving from multiple perspectives, and helps students keep their motivation in acquiring a second lan-

guage. It can be adapted to different learners, from kindergarten to adolescents. The twenty first century is here, and children seem to know everything related to technology. They surprise us every day. They demand new ways of teachings from us. Let's not forget the old fashion ways that some of us are used to including in our teaching, but let's try innovations as well. The incorporation of the Internet into our classroom is one of the best choices to achieve our goal in teaching children nowadays. After incorporating these types of activities into your lessons, your students will ask for more. Be prepared for their insisting demands for the use of the Internet in your English language teaching.

## Resources

Using a WebQuest in Your Classroom: [http://www.internet4classrooms.com/using\\_quest.htm#definition](http://www.internet4classrooms.com/using_quest.htm#definition).- Divided in 16 categories. In this site you have a clearer concept of the components of a WebQuest. You can choose topics and locate resources for your project.

PHP WebQuest:<http://phpwebquest.org>.- After you register to this site you can design, edit, and create your own WebQuest. Two main menus contain the type of WebQuests and the educational level you need to aim your WebQuest to.

WebQuest.Org: <http://webquest.org/index.php> The most complete source of information about WebQuests.

Web Quest Website Design: <http://imet.csus.edu/imet2/wheelerc/webquests/resource.htm> WebQuest site design.

a WebQuest on WebQuest: <http://www.creative-learner.com/>

WebQuest: <http://www.zunal.com/> . I strongly recommend this site, where the steps are illustrated and easy to follow. You will have to create an account to start designing your WebQuest.

Discovery Kids: <http://www.tudiscoverykids.com/actividades/experimentos/index.shtml>

Websites used by students in Sample Science WebQuest

Fun with Science: [http://www.tappi.org/paperu/fun\\_science/balancingAct.htm](http://www.tappi.org/paperu/fun_science/balancingAct.htm)

This site includes the example of balancing a book on a piece of paper.

WebQuests (Please note that few of the WebQuest links on this site are no longer available):

ESL WebQuest Links: <http://www.station05.qc.ca/css/Cybersite/webquest/workshop/jocelyn/Jocwbqts.htm>

WebQuests: What Are They?: <http://www.yesnet.yk.ca/schools/wes/webquests.html>

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## About the author

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## Appendix A

Excerpt from Dodge (2001).

	<b>Beginning</b>	<b>Developing</b>	<b>Accomplished</b>	<b>Score</b>
<b>Overall visual appeal</b>	0 points There are few or no graphic elements. Or Color is garish and /or typographic variations are overused and legibility suffers. Background interferes with the readability.	2 points Graphic elements sometimes, but not always, contribute to the understanding of concepts, ideas and relationships. There is some variation in type size, color, and layout.	4 points Appropriate and thematic graphic elements are used to make visual connections that contribute to the understanding of concepts, ideas and relationships. Differences in type size and color are used well and consistently.	
<b>Navigation and flow</b>	0 points Getting through the lesson is confusing. Pages can't be found easily or the way back isn't clear.	2 points There are few places where the learner can get lost and not know where to go next.	4 points Navigation is seamless. It is always clear to the learner what all the pieces are and how to get to them.	
<b>Mechanical aspects</b>	0 points There are more than 5 broken links, misplaced or missing images, badly sized tables, misspellings or grammatical errors.	1 point There are some broken links, misplaced or missing images, badly sized tables, misspellings or grammatical errors.	2 points No mechanical problems noted.	
<b>INTRODUCTION</b>				
<b>Motivational Effectiveness of Introduction</b>	0 points With not relevance or social importance. The scenario posed is transparently bogus and doesn't respect the media literacy of today's learners.	1 point The introduction relates somewhat to the learner's interests and/or describes a compelling question or problem.	2 points The introduction draws the reader into the lesson by relating to the learner's interests or goal and or engagingly describing a compelling question or problem.	
<b>Cognitive Effectiveness of the Introduction</b>	0 points The introduction doesn't prepare the reader for what is to come, or build on what the learner already knows.	1 point The introduction makes some reference to learner's prior knowledge and previews to some extent what the lesson is about.	2 points The introduction builds on learner's prior knowledge and effectively prepares the learner by foreshadowing what the lesson is about.	
<b>TASK</b>				
<b>Connection of Task to Standards</b>	0 points The task is not related to standards.	2 points The task is referenced to the standards but is not clearly connected to what students must know and be able to do to achieve proficiency of those standards.	4 points The task is referenced to standards and is clearly connected to what students must know and be able to do achieve proficiency of those standards.	
<b>Cognitive level of the task</b>	0 points Tasks requires simply comprehending or retelling of information found on web pages and answering factual questions.	3 points Task is doable but is limited in its significance to student's lives. The task requires analysis of information and/or putting together information from several sources.	6 points Task is engaging and elicits thinking. The task requires synthesis of multiple sources or information, and taking a position.	
<b>PROCESS</b>				
<b>Clarity of process</b>	0 points Process is not clearly stated. Students would not know exactly what they were supposed to do.	2 points Some directions are given, but there is missing information. Students might be confused.	4 point Every step is clearly stated. Most students would know exactly were they are at each step of the process and know what to do next.	
<b>Scaffolding of process</b>	0 points The process lacks strategies and organizational tools needed for students to gain the knowledge needed to complete the task Activities are of little significance to one another and to the accomplishment of the task	3 points Strategies and organizational tools embedded in the process are insufficient to ensure that all students will gain the knowledge needed to complete the task. Some of the activities do not relate specifically to the accomplishment of the task.	6 points The process provides students coming in at different entry levels with strategies and organizational tools to access and gain the knowledge needed to complete the task. Activities are clearly related and designed to take the students from basic knowledge to higher level thinking. Checks for understanding are built in to assess whether students are getting it.	
<b>Richness of Process</b>	0 points Few steps, no separate roles assigned.	1 points Some separate tasks or roles assigned.	2 points Different roles are assigned to help students understand different perspectives and/or share responsibility in accomplishing the task.	
<b>RESOURCES</b>				
<b>Relevance and quantity of resources</b>	0 points Resources provided are not sufficient for students to accomplish the task. OR There are too many resources for learners to look at in a reasonable time.	2 point There is some connection between the resources and the information needed for students to accomplish the task. Some resources don't add anything new.	4 points There is a clear and meaningful connection between all the resources and the information needed for students to accomplish the task. Every resource carries its weight.	
<b>EVALUATION</b>				
<b>Clarity of evaluation criteria</b>	0 points Criteria for success are not described.	3 points Criteria for success are at least partially described.	6 points Criteria for success are clearly stated in the form of a rubric. Criteria include qualitative as well as quantitative descriptors.	