

WebQuests:

A Method of Curriculum Integration

Workshop Notes

By

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Preface

Why WebQuests an introduction
by

Tom March

Introduction to the Web

The impact of the Internet and the World Wide Web on popular culture is not hard to measure. Tally the jargon that's made it into our everyday language: 'Net-surfing, info superhighway, Web site, chat room, cyber, browser, online, homepage, HTML and @. If the Web has reached such broad public awareness, how do you think it's touched the lives of our trend-tracking students? In fact, people have begun referring to today's students as Generation Dot Com. So even if the Web bore no educational value, we as teachers would need to come to terms with it to understand our students' world and frame of reference. The good news is that the Web is not just helpful to education, but, used effectively, it can revolutionize student learning.

Back in the early days of the Web (was it really only 1995?), Professor Bernie Dodge began developing the WebQuest strategy¹ at San Diego State University to help teachers integrate the power of the Web with student learning. I was fortunate to count Bernie as a mentor and colleague, so we began creating sample WebQuests and putting them online for teachers and students around the world to use. Three years of working in offices across the hall from each other, occasionally teaching together and frequently ruminating over drafts of chapters and online WebQuests, Bernie created The WebQuest Page² and I contributed a handful of WebQuests to Pacific Bell's Knowledge Network Explorer³. What follows is an introduction to some key ideas behind WebQuests. But before jumping into the whys and hows of WebQuests, it's important to make sure you have a good conceptual understanding of the World Wide Web and its aspects that support student learning.

Myth #1 - The Web is the World's Biggest Encyclopedia

This is the first misconception many newcomers bring to the Web. Yes, both offer lots of information on lots of topics, but the similarities tend to end there. Whereas an encyclopedia is organized and cross-referenced, the Web is amorphous and chaotic. Whereas the content of an encyclopedia is carefully researched and striving for bias-free presentation, the Web is passionately posted and full of opinions and rarely hidden agendas. Finally, whereas an encyclopedia is written by professionals, anyone can write a Web page. Oh yeah, one's sort of dead and the other pretty lively. Which do you think students would be more likely to respond to and use? Better yet, which one do you think more accurately represents the reality around us? So

¹ Some Thoughts About WebQuests - http://edweb.sdsu.edu/courses/EDTEC596/About_WebQuests.html

² The WebQuest Page - <http://edweb.sdsu.edu/webquest/webquest.html>

³ Wired Learning in the Classroom - <http://www.kn.pacbell.com/wired/>

rather than being the world's biggest encyclopedia, the Web is more like inviting the world itself into your classroom.

Myth #2 - The Web is an Information Superhighway

Although the Web is like a superhighway of information when seen as a source of data, facts, and figures, this misses more powerful aspects. More than information, the Web is about people, ideas, and sharing. Evidence for this can be seen in the Web's ancestry. Long before the Web, and even the Internet, something called ARPAnet connected researchers via a communications network (the name denoted its funding source: the Department of Defense's Advanced Research Projects Agency). Yes, the researchers posted information, but more important than the information was the act itself: people across the country were sharing ideas and working together. When the Internet came online, this sharing and collegiality carried on from the military sphere to higher education. With the birth of the Web's friendly user interface, the world has joined in, with everyone from primary school classrooms to rock bands and law firms wanting to connect with their communities. A sure sign of the learning / sharing / community-building aspect of the Web is evident in our best Web sites: companies who spend millions on television advertising whose only purpose is to sell, know that their Web site must offer more (games, fun facts, "insider" information, online tools etc.). In other words, they must play by the rules of the Web and contribute something to the online community. If not, a few thousand similar Web sites exist that will lure users away by offering something valuable.

Myth #3 - The Web is Full of Useless Junk

This isn't actually a myth. It's true; the Web is full of useless junk. What's makes the statement less than the whole truth, however, is the Web's size. Because of its incomprehensible hugeness, something of everything is on the Web: undesirable junk, indecipherable university research, incomplete arguments, yesterday's forgotten and rotting postings. But, hovering side-by-side with these in cyberspace are also desirable gems like the Library of Congress⁴, up-to-the-minute reporting like that on CNN Interactive⁵, and the persuasive Web sites created by students in the ThinkQuest⁶ project. This is not to say that it's all there. For example, the number of links on the subject of Ancient Greece will be more limited than the topic of Oceans. But give us a little time to make the Web what we want and need it to be. It's barely out of toddlerhood and yet it's shown a terrific responsiveness. Search engines have become more powerful and easier to use, many meta sites filter through the millions of Web pages and link to those of value to a particular community, and more schools, teacher and students are coming online daily which will help shape the direction of our Web and post the pages we seek.

⁴ The Library of Congress - <http://www.loc.gov/>

⁵ CNN Interactive - <http://www.cnn.com/>

⁶ Interestingly and telling, the link to the ThinkQuest project has been terminated.

A Final Thought

Viewed through the eyes of traditional education, who would want a learning resource that presents the world in all its chaos, offers more opinions than facts, and requires a subtle intelligence to sort the gems from the junk? Viewed from a more student-centered, active-learning perspective, what better resource could you imagine! With the Web, students must take charge of their learning and scrutinize everything. WebQuests can help you facilitate this shift and provide students with the skills they need to navigate, rather than surf, the Web. Shouldn't we empower students to reach their destinations, not flounder in the surf of each shifting wave?

Why WebQuests?

If you've attended any professional growth in-services or college of education courses in the past ten years you'll be familiar with the following phrases of teacher-speak: critical thinking, cooperative learning, authentic assessment, and technology integration. You may even have bumped into cognitive psychology with its schema theory, scaffolding, and novice/expert models. How about constructivism? If you're like most educators, you get excited about new ideas for helping students learn and grow, but then feel your chest tighten or your spirits sink when you remember your already bursting curriculum requirements and the logistical demands of classroom teaching. With everything else that must be taught, how can we add these new and important strategies? WebQuests were designed to address this dilemma by bringing together the most effective instructional practices into one integrated student activity.

Let's move through the WebQuest strategy, highlighting its features and the rationale behind them.

Student Motivation & Authenticity

When students are motivated they not only put in more effort, but their minds are more alert and ready to make connections. WebQuests use several strategies to increase student motivation. First, WebQuests use a central question that honestly needs answering. When students are asked to understand, hypothesize or problem-solve an issue that confronts the real world, they face an authentic task, not something that only carries meaning in a school classroom. Although you can't count on getting a response, when students do receive feedback from someone they didn't previously know, they join a community of learners and have their presence, if not their contribution, validated. When teachers choose a topic they know their students would respond to, they add to the relevance.

The second feature of WebQuests that increase student motivation is that students are given real resources to work with. Rather than turn to a dated textbook, filtered encyclopedias or middle-of-the-road magazines, with the Web students can directly access individual experts, searchable databases, current reporting, and even fringe groups to gather their insights.

When students take on roles within a cooperative group, they must develop expertise on a particular aspect or perspective of the topic. That their teammates count on them to bring back real expertise should inspire and motivate learning.

Lastly, the answer or solution the student teams develop can be posted, emailed or presented to real people for feedback and evaluation. This authentic assessment also motivates students to do their best and come up with a real group answer, not simply something to fulfill an assignment.

Developing Thinking Skills

One of the main (and often neglected) features of any WebQuest is that students tackle questions that prompt higher level thinking. Certainly, the Web can be used as a source for simple information retrieval, but this misses its power and short-changes students. Built into the WebQuest process are the strategies of cognitive psychology and constructivism. First, the question posed to students can not be answered simply by collecting and spitting back information. A WebQuest forces students to transform information into something else: a cluster that maps out the main issues, a comparison, a hypothesis, a solution, etc.

In order to engage students in higher level cognition, WebQuests use scaffolding or prompting which has been shown to facilitate more advanced thinking. In other words, by breaking the task into meaningful "chunks" and asking students to undertake specific sub-tasks, a WebQuest can step them through the kind of thinking process that more expert learners would typically use.

Lastly, constructivism suggests that when students need to understand a more complex or sophisticated topic like those that comprise WebQuests, it doesn't help to serve them simplified truths, boiled down examples, or step-by-step formulas. What they need are many examples with lots of information and opinions on the topic through which they will sift until they have constructed an understanding that not only connects to their own individual prior knowledge, but also builds new schema that will be refined when students encounter the topic again in the future. Until the Web, this kind of activity was very difficult for the average teacher to create because collecting such a breadth of resources was next to impossible.

Cooperative Learning

As has already been mentioned, in WebQuests students take on roles within a small student group and this tends to promote motivation. In addition, because the WebQuest targets learning about large, complex or controversial topics, it's probably not realistic to expect each student to master all of its aspects. Thus learners divide to conquer. This is not to say that students don't gain the overall understanding, because this happens in a later stage of the process, but it does suggest to learners the reality that not everyone knows everything. In fact, this is one of the great messages that students invariably bring back from interactions with experts whose works focus on very thin slivers of the knowledge pie. Having students develop expertise and be appreciated for it by their peers is built into each WebQuest. Cooperative learning strategies are then applied to necessitate each student's input. By running several WebQuest groups in the same class, students will also see that different solutions were chosen by each team because of the quality of the group members' research and argumentation skills. As students complete more WebQuests they will become increasingly aware that their individual work has a direct impact of the intelligence of their group's final product.

Process & Access

Research has shown that the most important factor related to student learning and technology use is how teachers relate the technology-based activity to other learning activities. Therefore, it's important to clearly link your WebQuest to previous and subsequent activities, so that the WebQuest is not an isolated experience disconnected from the rest of your curriculum. Relatedly, WebQuests aren't the endpoint, but the beginning of student use of the Web for learning. Ideally, in the not so distant future, students will have internalized many of the cognitive strategies built into WebQuests, so that students direct and guide their own studies and findings. You might call this idea "WebQuests as training wheels."

Perhaps the greatest hurdle some teachers will face in implementing WebQuests relates to technology access. No one's situation epitomizes the perfect technology set-up, and the exact details of implementing your WebQuest will vary depending on the kind of Web access you have and the number of computers available. Still, feel comforted by the fact that no classroom or school is free from dealing with the constraints imposed by limitations in technology. Even schools with lots of computers may not have adequate bandwidth to access the Internet quickly. Or, perhaps access is fine, but the computers don't have enough RAM and therefore have to run older versions of Web browsers. Or, maybe your school doesn't even have an Internet connection and you're doing all your Web navigation from home. The varieties are infinite, but this is a misery we all share. It might help to view these constraints as Robert Frost viewed writing poetry in meter. He said to not do so was like "playing tennis without a net." See if you can't turn your limitation into a spur for creativity.

This said, here are a few scenarios to consider as you face your own "net."

No computers

Teachers with no computers available in their schools are hard pressed to do a WebQuest, but the intrepid can print out the Web pages for their students to use in class. The fun of computers and Web work can be lost, but perhaps other aspects of the learning experience can be used to increase student motivation.

One computer with Net Access

Teachers in a one-computer classroom can pair students up and create a modular classroom for working on their WebQuests. One rotating station could be the online computer, one could use print-outs from Web pages, another group could use library books, magazines, videotapes, CD-ROMs, etc. Students in this scenario would be in a good position to evaluate whether Web access made a difference.

One Computer No Net Access

Teachers with Web access at home but non-networked computers in school can use a program like Web Buddy or Web Whacker to download the Web pages from home and then copy them from disk onto computers at school. This creates a virtual Web where the pages look identical to the pages on the Web, but they are running from the computers' hard drives. Some schools carry this notion one step farther by loading the pages onto their proxy server / intranet.

Few Computers

If you have Internet access in your schools, but perhaps lack a sufficient number of computers, you might also try pairing students up for each role (therefore five roles could support ten students). You might also look for access to an online computer lab that might be available for a few class sessions. Also use a combination of the above bulleted strategies to ease the crunch.

Choosing a WebQuest

As stated, the most successful WebQuests have little to do with bandwidth or the excellence of the Web sites we link to. The most important factor is you, the teacher. You know your students, their prior experiences and knowledge, the things that tend to interest them, and the goals you hope to achieve while studying a topic. Successful WebQuests will act as one more learning strategy to achieve these goals. Thus the best place to look to help you decide which WebQuest(s) to choose is at your current curriculum on the related topic. Ask yourself, "What has been successful and what has seemed lacking?" If you're happy with the way you introduce the topic, great! If you feel the students get adequate and accurate basic information from a text and your handouts, terrific! If they engage in higher-level thinking and develop authentic learning products they already share with the real world, you're doing an outstanding job! If you see a gap in any of these aspects, think about choosing a WebQuest to fill that need.

Introduction

Since the advent of new technologies in education, the most pivotal objection to incorporation and integration has always been its practical, effective use in day-to-day classroom activities.

"It's all very nice but those sites don't cover what I do in the class."

"It's not in our curriculum!"

"You mean I'm going to have to change the way I've done things!"

"I don't want to become a nerd to use the 'net in my class!"

"My kids get lost on the 'net!"

And, those were the milder comments.

The problem was, is and will continue to be that all the above comments *are* valid. With any shift in the cultural paradigm, institutions always move slower than the society they serve or the technologies they seek to incorporate. Seamless integration will come about - but not this year. It will take time.

Nevertheless, how do those of us who see the advantages of the Internet, as one example of the new technologies, make constructive use of them *now*?

This was the problem addressed by Dr. Bernie Dodge, formerly of San Diego State University, when he developed the **WebQuest** methodology. Simply put, Dodge's techniques allow the student (and teacher) to constructively and pointedly explore the Internet while adhering to preset objectives. Moreover, writing a **WebQuest** is no more difficult than writing a class plan.

It may well be said in the future that the WebQuest technique did more to foster curriculum integration and educational Internet development than any other single process in the final years of the Twentieth Century.

Lastly, it should be noted that this companion to the WebQuest workshop is by no means an original work. It is meant to serve as a reference tool for those teachers who have participated in the workshop or, as a guide to those who have not had the opportunity.

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WebQuest An Overview

In the summer of 1995 - nearly a generation ago in terms of technological development - a professor of Educational Technology, Dr. Bernie Dodge, at San Diego State University developed an innovative approach to using the Internet as an integral part of teaching *any subject at any grade level*. In creating the methodology, Dodge coined the term **WebQuest**⁷.

A WebQuest is a project model in which some or all of the information with which students interact is derived from the Internet.⁸ WebQuests may be short or long term.

In a short term WebQuest, the goal is simply the acquisition of knowledge and information. Each student obtains and processes a significant amount of new information from the Web and in-school materials and/or resources. And, makes sense of it all by producing a document - be it in report or web page form - synthesizing the information into newly-acquired understanding. Generally, short term WebQuests are designed to be completed in one (1) to three (3) class periods (calculated at sixty (60) minutes per class period).

The long term WebQuest, on the other hand, increases the instructional goals by one complete level, challenging students to extend and refine the knowledge they've acquired on-line and in the real, as opposed to virtual, world. Each student deeply analyses a body of knowledge, integrates it into their own knowledge base, and demonstrates their understanding by presenting it to the class in the form of a web page, multimedia presentation or report. Long term WebQuests can take between one week and one month to complete. (Again, time calculations are based on a single 60 minute period per day.)

Successful WebQuest Components

- A clear introductory paragraph (**Introduction**) which sets the stage for the activity and provides some background information.
- A central **task** that is do-able and interesting.
- A set of information sources (**Resources**) needed to complete the task. All of the knowledge sources - be they Internet-based or conventional - should be given to the students in the form of a WebQuest handout. This component is key to centering your students on the task at hand and pivotal to the essence of a successful WebQuest.
- A description of the entire **process** the students should go through in accomplishing the task (goals of the specific WebQuest).
- Guidance (**Learning Advice**) as to how to organize the information acquired. This can take the form of: guiding questions; or, organizational frameworks such as timetables, maps etc.

⁷ The WebQuest Page, <http://edweb.sdsu.edu/webquest/webquest.html>

⁸ How to Create Successful Internet Projects, Timothy Mclean, Lancaster: Classroom Connect 1997.

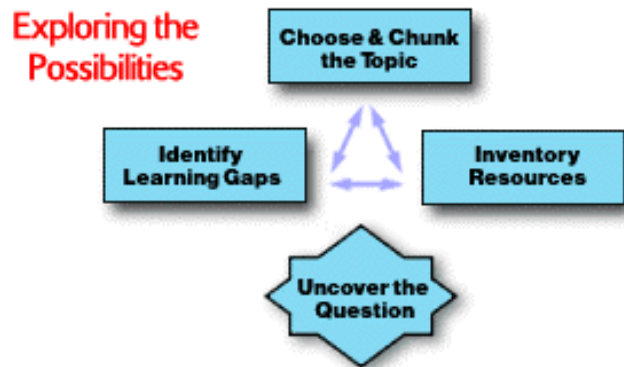
- Finally, a **conclusion** that brings a closure to the WebQuest project and reminds the learner(s) exactly what they've learned. It may further encourage them to extend this new experience into other domains.

Though not mandatory, it is commonly accepted by WebQuest practitioners that the final act in this process is Internet publication which serves three (3) distinct purposes: 1) It focuses the learners on a tangible, hi-tech task; 2) It gives them a receptive, sympathetic audience for which to create; and, 3) It opens up the possibility of getting feedback from that geographically distant, though virtually near, audience.

In the sections that follow, we will discuss each component listed above as it applies to the WebQuest model we will develop in simulation.

The WebQuest Design Process Part I

By
Tom March



Before you begin...

Before getting launched off into designing a Web-based learning activity, it's important to have a strong personal sense of the Web's value. To this end you might want to Surf, Stumble, Search & Lurch your way to such an appreciation.

If you're new to the notion of WebQuests, a couple online articles might help you understand the strategy. First, back in 1995 Professor Bernie Dodge posted *Some Thoughts about WebQuests*. A more recent rationale is *Why WebQuests?*. This introductory article attempts to dispel a few myths as well as point out the instructional strengths behind the WebQuest strategy.

In short, WebQuests are designed to bridge the transition between teacher-led instruction and self-directed learning by students. The hope is that through the scaffolding WebQuests provide, both teachers and students will gain experience in a learning-centered approach and internalize some of the helpful strategies.

a few words about "Flow"

First off, this is not necessarily a linear process. So if you feel yourself needing to surf the 'Net first to help find a topic, great. Maybe you want to begin with challenging / thematic questions and then work back to the curriculum. Sounds fine. The main imperative here is to muster your interests, needs, and resources in an effort to get into that vibrant "Flow" experience. You know the state: it's when you're in the process of something fulfilling that's challenging you to do your best. Writing a poem, playing tennis, line dancing, calculating a solution, designing a WebQuest...

Feel free to skip around this phase of the process and jot notes when the ideas and insights arise. Some like to use some brainstorming software like Inspiration to cluster their thoughts. Others still turn to backs of napkins or yellow legal pads.

choose & chunk the topic

If you want some ideas on possible starting points for choosing a topic, you can try out the Idea Machine. It will prompt you to consider some areas like student needs, technology, upcoming events, local interests, etc. It's designed to help you begin brainstorming.

How do you know when you have a good topic? The best topics seem to be large enough that you, the designer, have some wiggle room to discover what's most interesting. For example, look at the unit level (The Civil War), not the activity level (the Battle of Bull Run). This will make it more likely for you to come across some really interesting Web sites that will add to your brainstorming.

Generally, a topic will be a good candidate for a WebQuest if it holds some inherent complexity. Once you have some ideas for topics, chunk them out into sub-categories by clustering. You might look for things like relationships to other topics, controversial issues, multiple perspectives about the topic, changing beliefs, unknowns, etc. This clustering will help you when it comes time to uncover your main question and devise roles for learners.

Identify Learning Gaps

Good instructional activities attempt to address students' needs. Once you've been teaching even one semester, you have a good idea about things that are difficult for students to learn. This is a good starting point for designing an instructional activity. Professor Allison Rossett has described a useful equation. Envision the optimal learning outcomes for a particular unit or activity. Then compare that to the actual outcomes. The learning gap is the difference between Optimals and Actuals. Given a curricular unit you'd like to develop, look for the learning gaps. Keep these handy for when you want to state the Question and Task for your WebQuest.

If the students' learning gap has mostly to do with knowledge, affective connection, or understanding concepts, you might be better off choosing a different format than a WebQuest. Take a look at Working the Web for Education to learn about formats that target these learning goals. If the gap has something to do with limited critical thinking abilities, pedestrian problem solving, or uncooperative learning groups, then it makes sense to design a WebQuest.

Inventory Resources

When you inventory your learning resources you're consciously collecting all the raw materials that COULD go into your WebQuest. Yes, this includes Web sites, but before we get to that, don't forget all the other things you might have available. If you haven't yet used the Idea Machine, this would be a good time. It will prompt you to consider about a variety of things that you might not think you have available. The main thing at this stage is to linger in the land of "what if." Later you will need to make choices that limit your options, but in this early design stage you never know what little thing could be the piece that brings the whole activity together. Examples of this little piece might be a certain software program you want to learn or a particular local/school interest or a colleague's expertise in white water rafting. You just can't tell about these things.

Part of the magic of creating Web-based activities is that you never know what you'll find on the Web. Sure there's a lot of garbage to sift through, but on any given topic, there can be one gem of a Web site that you didn't expect to find that create sparks for both the designer and future learners. Thinking thru Linking will give you some ideas on the types of links to look for and how you might use them.

In terms of finding good Web sites, there's no one way and a lot has to do with serendipity. A few pointers to help, though is to look through the Hotlist category in Blue Web'n or use your favorite search engine and look for someone else's hotlist on the topic. This will save you time. Finally, look back to yourself. Remember that list you clustered earlier. Those sub categories are also search terms, aren't they?

If you need an easy way to gather Web sites, you can use the Hotlisting feature of Filamentality (more on this in the design section on Creating Your WebQuest).

Decision: Uncover the Question

The single most important aspect of a WebQuest is its Question. Unless answering the question demands higher order thinking, you don't have a WebQuest. Another way to say this is: if there's a clear and easy or factually known answer to the question, this isn't a WebQuest. You can explore Uncovering the Question / Task to get an idea for the kinds of questions that have been successful.

You'll notice that the last box in this phase of the WebQuest Design Process isn't actually a box like the other three. The super-imposed diamond shape suggests that this section requires you to make a decision. The decision is, "Do you have what it takes to make a WebQuest?" Posing these questions will help you to elicit a positive response:

Is the Topic curricularly worth the time and effort needed to build this WebQuest?

Is the level of potential student cognition worth the effort?

Is a WebQuest the right strategy? (make sure you Get WebQuests and know about other formats)

Are you excited by the available resources (both online and local)?

Does the Web offer so much that its use is warranted?

Does the Question ask something that people in the real world find important? (i.e., this isn't just school work, is it?)

Is the answer to the question open to interpretation / argument / hypothesis?

If you've answered yes to all the questions above, you're on the way to creating a great WebQuest!

The WebQuest Design Process Part II

By

Tom March



overview

The second phase of the design process could also be called shaping, outlining, or drafting. This is the time to make sure you have all the right pieces before actually putting them together and then up on the Web.

Brainstorm Transformations

Bernie Dodge stood at the chalkboard in an empty classroom pointing to a row of three boxes he had just drawn. The first he'd labeled "learning inputs" and the last "learning outcomes." But the one in the middle excited him: "Transformations." The goings-on in the minds of learners that take the raw information and work with it until it's transformed into new knowledge, constructed into new meaning. From that day back in 1995, this has been the definitive focus of the WebQuest strategy. The main thing you want to do at this stage of the design process is to brainstorm all the possible transformative cognitive tasks that could be involved with your Question. To gain some sense of what Bernie was grappling with, read his [Active Learning on the WWW](#). If you're game and want to apply what you've learned, try the [ITO Activity](#) (Input - Transformation - Outcomes) that prompts you to look closely at the thinking tasks in several WebQuests.

a strong caveat

There are many Web-based activities online that don't require transformative thinking to complete. These are done by well-meaning and smart people. What likely happens is that the Question and Task COULD prompt this kind of cognition in expert thinkers (like those people designing them), but they're not structured in such a way as to require it. An example is the first [Searching for China version 0.9](#). Although a person could learn a lot from it, they wouldn't have to. Most of the tasks involve a "step and fetch it" process (i.e., "Go get some info. Bring it back to me. Don't bother doing anything with it, just bring it on back.")

We've been waiting for a great constructivist resource, it would be a shame to waste it. If you haven't, now would be a good time to read [Why WebQuests?](#)

Identify Real World Feedback

Asking students to test their learning in the real world is one place Bernie Dodge and I differ. My thinking is that it's a fairly short step to take to make the WebQuest a truly authentic learning experience and therefore legitimize the students' efforts. But this had been my bias as a classroom teacher...

Because of email and the Web, it's never been easier for students to test their learning with others interested in the same topic. This is not to say that students should be shooting off email indiscriminantly, filling up busy people's mailboxes. But if you've ever (and I hope you have) been on the receiving end of some online support, info, or encouragement from a "friend" you've never met except via email, then you know how powerful that can be. So let's discuss a few suggestions to preserve this Golden Age of email a few years longer.

No "Can you tell me everything / anything..." emails

Who, let alone a busy person, could respond to the kind of emails students tend to write initially? It's a little bit insulting for two reasons: 1) it makes the expert do all the work while the student asked one little question. 2) If someone's an expert, how could they boil it down to one email response (he or she may have written a book, movie, or Web site on the topic!).

Send hypotheses and ask for opinions, not facts

A better solution is to have the students do all the work and then send their final, best thinking to someone for feedback. Use the students' expertise as a calling card. When someone receives a thoughtful and effortful request for a little feedback, people are more likely to respond. Ask for opinions, as facts can be gained from other sources. Expert opinions are precious.

How to find real world feedback?

Although there are pages to [Ask an Expert](#), the real power of the Web is that behind every Web page is at least one real person. And they are usually pretty passionate or they wouldn't be posting a Web page. So try "looking behind" Web pages. Email addresses are often listed at the bottom of pages. By having students seek out their own "experts," they must think about who to ask, learn about that person's work, etc. Also, when students find their own, you're not sending entire classes to spam one poor soul's mailbox. This is the strategy used in [Searching for China 2.0](#). It's also a nice idea to ask someone if they would be willing to help out before actually sending the request for feedback (and NEVER send unannounced attachments with email messages).

Another way to access "experts" is through listservs and newsgroups. Some people have been very successful using these with their students, but there's some pretty heavy overhead involved: lurking long enough to see if the list or group has anything to say about your topic (never post without lurking for a little while or expect to be flamed). Also, the decorum (or lack) of some newsgroups is legendary and just the kind of thing to fuel justifiable parent outrage.

A safer bet is to hook up with another school or classroom. Registries like [Web 66](#) can give you a geographical reason to look at some school's Web page. Then you can learn more by surfing their site. Once you break the ice and find someone to get feedback from, you might want to maintain the relationship and do some collaborative projects / WebQuests together.

Don't forget the local

Real world feedback does not have to come from the Web. It's fairly easy and sidesteps scheduling problems, but student work can be given authentic and legitimate assessment through such local options as presentations, debates, and exhibitions to local experts, peers, cross age students, and parents.

Sort Links into Roles

Once you have collected maybe 10 - 15 robust and varied Web sites on the topic, it's time to try sorting them. Probably while you collected the sites you started to formulate some ideas as to how they might be divided. Try to chunk them out now and see what happens. Don't worry if the boundaries between the categories are a little fuzzy. There isn't a job that doesn't overlap into some other area of expertise. You might wonder how many roles to create, but that's usually self-evident. You can't force a role into being that you don't have resources for.

What you may find is that for some topics it works to divide the Web sites by their perspectives. This is often the case for controversial topics. The beauty of chunking out links by perspective is that it requires students to find their own truth amidst disagreement. [Searching for China](#) is an example of this. Other times, you may not find any disagreement, but the topic may be large or complex enough to divide the Web sites into jobs or tasks. An example of this is [Tuskegee Tragedy](#). Part of the trick in cases like these is to choose jobs that are mirrored in the work or academic worlds.

After you've sorted your collection of Web resources, think about the students' background knowledge of the topic. Make sure they all start out on solid footing by doing one of three things: 1) Use learning activities prior to the WebQuest to prepare this fundamental knowledge on the subject. 2) Give each role at least one link that provides good background. 3) Engage students during the WebQuest process in some sort of "background for everyone" phase. This is easily done as in [Donner Online](#) or a separate activity as in [Searching for China](#).

Finally, there's never been a WebQuest designer who didn't have to go back and surf some more when it's discovered some role doesn't have a healthy enough set of links. Such is life this late in the 20th Century. I guess it's better than running out of room when you're chiseling a long word into a granite tablet... While you're at it, take a look to see if the content across the roles is roughly

equivalent in its rigors. A little imbalance is realistic, but if one of the roles involves a lot more reading or harder material, that might be tough.

Decision: Define the Learning Task

The easiest way to think of the Learning Task is the students' physical product. Whereas the Question identifies what will go on in the minds of learners, the Task defines how that learning will materialize. So they definitely go hand-in-hand, but they decidedly different. You might want to go back to [Uncovering the Question / Task](#) to see examples.

Because the WebQuests on Pacific Bell's [Knowledge Network Explorer](#) have to live on the Web, they usually use writing email messages, creating HyperStudio stacks, or posting Web pages as the Tasks. But many WebQuests have prompted students to do such things as create a newsletter, post a mural, write and perform a play, or give a presentation. The best suggestion is to use the Task that you prefer. If you're not a craft person, skip the scissors and glue. If you want to learn a certain software, use it for the Task. If you're the Speech and Debate coach...

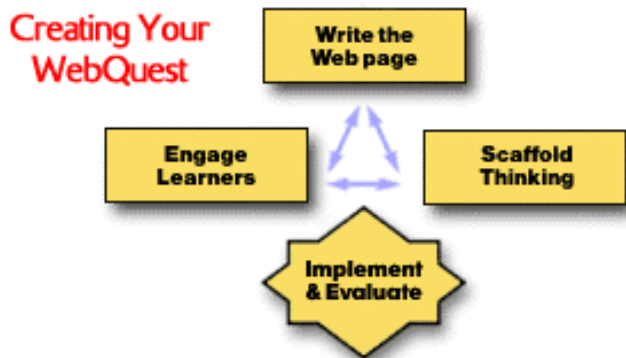
Now we get to the decision aspect of this phase. Because you already answered Yes to all the questions in the [first phase](#), you're in good shape, but here are some critical questions you'll also want to answer in the affirmative:

- Does what's emerged from the Web resources address learning Gap?
- Have you specifically identified the kind of higher level thinking that will transpire in the minds of learners?
- Do you have the right technology, time, and comfort level to support the Task you've identified?
- Is there enough on the Web to support the roles? (do you have in-class supplements?)
- Does the Task mirror activities in the real world?
- Is this a WebQuest or really another [format](#)? (last chance for an easier way out - Treasure Hunt, Subject Sampler, Concept Builder, etc.)

The WebQuest Design Process Part III

By

Tom March



overview

The final phase of the design process is actually the easiest. Now that you have gathered all the raw materials for your WebQuest and thought through its key features, now you get to put it all together. You'll probably experience a sense of momentum heading into the final stretch that will carry you toward ultimate and euphoric completion (that is if it's not already 2:00AM).

Write the Web Page

Write the Web page. Easier said than done? Well, not really. Back in the gray (background) days of the Web, people had to learn the funny tags of HTML. That's not really true today. A number of tools have sprung up that allow people to ignore HyperText Markup Language. The most obvious tools are WYSIWYG editors like Microsoft Frontpage, Claris Homepage, Macromedia Dreamweaver, etc. If you like using one of these programs, then simply open the [WebQuest Template](#) and begin adding your content. If you want help adding cool titles to your template, here's a pretty helpful tutorial on creating [graphics in Photoshop](#).

You may have heard of a friend named [Filamentality](#). He's been sitting in a dark room in San Ramon, California spinning Web pages since March of '96. He'll be glad to help you surf for sites, give some pointers about creating your WebQuest, and even post it on the Web (for free). I guess he's trying hard to make friends.

Also look for a new friend called [Web and Flow](#). (did you [register](#) for a free 6 month subscription?)

Finally if you are one of us hardcore HTML coders, just peel back the source on any WebQuest you really like, attribute and email the original author, and make it your own. If this sounds interesting, but you've never closed a tag, break the ice with a [Quick and Dirty](#) homepage.

Engage Learners

So if you thought "Write the Web page" was a bit nonchalant, "Engage Learners" must seem over the top. Easier said than done, huh? That's true. But, isn't this also what you attempt to do anytime you write a lesson plan, create an activity, facilitate a discussion, etc. So look to your own sense of your students, your teaching style, and your sense of interest and humor to find a way to pique curiosity (yes, one more time).

A couple things to keep in mind are that if the Question and Task are authentic you already have a lot going for you. Remember that everyone loves to feel they are involved in real learning. Also, realize that students will soon be using the killer Web sites you found for them. Another motivator in the waiting. So your main challenge is to write an engaging introduction that naturally leads into the Question / Task. After that the rest of the WebQuest is really about righting for clarity. You might try traditional attention-getters like anecdotes, examples, quotations, metaphors or scenarios to get the creative juices flowing.

Lastly, don't forget about the conclusion. Naturally it makes good semantic sense to return to whatever attention-getter you used in the introduction. This helps learners complete the cognitive link back to that initial thinking. Research has shown that we help students develop cognitive skills when we talk about them. So overtly discuss the transformative thinking the students engaged in and talk about what it was like (how it was hard, what was different, what were they used to, etc.). Finally, it's nice to include discussion of how what the students learned applies to other topics. If you can help students internalize and transfer these skills you've done a terrific job.

Scaffold Thinking

Remember all the emphasis on how the Question must prompt transformative thinking? Well, this is where it happens. But it's not magic and can't happen with a quick presto-change-o. It will take clarity in your thinking to guide learners toward higher level thinking.

The first step is to clearly lay out all the instructions for the phases on learning background information and developing expertise in the roles. This isn't tricky because it's really about knowledge acquisition. One tip is that is the roles will be challenging for the students to master, have the students in like roles work together. If the students are more advanced, keep students in like roles apart so that each can develop his or her own interpretation.

The tricky part of outlining the learning process comes when you want to prompt higher-order thinking. The cleanest way to do this is to make the transformative thinking happen when the students come back together after learning about their roles. It's the natural time because now you have individual experts ready to solve a common problem. The temptation is to simply say "share what you've learned and come to a common answer." I think this only happens in movies and other teachers' classes. It never happened in mine.

So focus on what instructions you give the group as they complete their Task (i.e., create their learning outcome). A main strategy we're developing is the use of visual organizers. One example is used in Searching for China's [Group Process](#). A hexagonal shape is used to represent the

"playing field" where the solutions must fall. By juxtaposing conflicting interests students are helped to see the impact of one force on its opposite.

Another visual strategy was used in the group process for [Tuskegee Tragedy](#). Here a list of questions was posed to several topics that people had used in comparison to the Tuskegee Study. Because the Tuskegee Study was so obviously bad and wrong, some people linked their causes to this tragedy as a way to say, "See our plight is just as bad." The questions and comparisons in the WebQuest prompt students to see if this is true.

Another, more graphical comparison / contrast strategy is used in the new version of [Eyes on Art](#) (in the No Fear o' Eras activity). Here a Venn diagram, some questions, and a list guide students to defining the critical attributes of artistic eras.

In all these cases, it's always been helpful to simply ask (one more time), "Just what's going on in the minds of the learners?". Because that's where it's at. Here's where you make sure the Task elicits the desired cognition and addresses the learning Gap you identified at the beginning of this process. And you thought we did that just for fun.

Decision: Implement and Evaluate

You're there! You've got a solid WebQuest that you're ready to try out with students. If you've been moving through this design process you're in great shape. If you feel like getting a quick review you can use the [WebQuest Designer's Checklist](#). For a more thorough once-over, use the [WebQuest Rubric](#) to check yourself. Also, if you don't have a rubric or some other assessment tool to let students see how they've done, you might try a variation on the [Searching for China Rubric](#) (remember, you can peel off the source code to either of the above rubric and add your own wording).

When it comes time to use your WebQuest with students, you have some choices in terms of delivery. If your district has a server, see about posting it there. If there isn't or it's bound up in red tape, you might post it on the Webspaces that tends to come free with ISP services. If you can't get access to a server, remember [Filamentality](#). He's got a few gigabytes to spare. Finally, you can simply run your WebQuest off a diskette, hard drive or intranet if you don't want to post your WebQuest at all.

Maybe you don't have access to the Net at your school? Look to the technology integration tips in [Why WebQuests?](#) for help. By the way, it's a good idea to "Web Whack" your site and its links as a back up.

Once you've tried out your WebQuest with students, spend time debriefing with them to find out how it went for them. Remember, we're planting the seeds of change & growth so that students will internalize some of these cognitive strategies and apply them to self-directed learning.

Part of the beauty of the Web is that you and others like you have gone to a lot of effort to create excellent learning experiences that are available for others to use. When you're happy with your WebQuest, it's a nice gesture to let others know about it. You can send a message to [The WebQuest Page](#) as Bernie offers a handy matrix of WebQuests by grade level and content area. You might submit your WebQuest to [Blue Web'n](#) to see if it will get posted in the database of Blue

Ribbon educational Web sites. And our old friend [Filamentality](#) is still trying to please by offering a free registry of WebQuests and other Web-based activities. Post yours and look for WebQuests created by other teachers. Finally, you may be a member of an educational email list or discussion group. Let your colleagues know the URL of your latest creation.

After all that work, I'll bet you'll want to use your WebQuest again next year. Terrific! Be prepared though for the shifting strands of the Web to have moved a bit in a year. In other words, expect some broken links ("Link Rot") that you may be able to track down and others you'll have to find replacements for. And by the way, while you're re-surfing, you might as well identify any gaps between how you optimally envisioned the WebQuest working and how it actually turned out... Oops, sounds like we're back at the beginning of the process!

Web Design Tips

By

Tom March

An Engaging Opening

Like any beginning, use things like metaphors, anecdotes, or a scenario to appeal to the students' innate curiosity. Refrain from making this just another assignment. If you have some killer Web sites in store for the students and a challenging task, get off on the right foot by luring students into what makes the topic fascinating, problematic or controversial.

The Question / Task

The easiest way I've found to work this aspect is to think of the Question and the task separately. The Question will tend to emerge from the Internet resources themselves and your critical thinking goals for students. Look for the conflicting viewpoints and gray areas; this is the heart of higher order thinking. You can check yourself quickly at this point by asking, **When the students are involved in answering the Question, what kind of thinking are they doing?** If the answer is knowledge acquisition, you don't have a WebQuest yet. As for the Task, think of this as the actual product or outcome of the WebQuest. I tend to draw from an array of software / technologies for these outcomes: email letters, desktop slide presentations, HyperStudio stacks, Web pages, etc. This being said, if you have time or technology constraints, you can still have an effective and stimulating WebQuest that ends in a class discussion or a butcher paper mural. Remember, it's the thinking and learning, not the Web sites and wires.

Background for Everyone

If students are going to engage in constructing new meaning, somewhere along the line they are going to have to start with a fairly robust foundation of knowledge. This background information may come from class activities, textbooks, lectures & discussions, etc. Or it may come from the Web. You may have noticed that I almost invariably have a **Background for Everyone** phase before students divide into their expert roles. So cultivate the learning in class or include it in your WebQuest page itself, but don't skip this crucial foundation.

Roles / Expertise

As much as possible try to get the roles to emerge from the design process. As you collect resources and Web sites, see if there isn't a natural division or chunking going on. Finally,

the more realistic you make these roles, the more authentic the whole task will appear to the students. Try as hard as you can not to make this a **playing school** scenario where it's about pretending to do something. Use the Web to really bring reality into your classroom.

Use of the Web

Can the learning you envision be achieved without the Web? Then why use it? Furthermore, why go to the trouble of creating a WebQuest? However, if you tap into elements of the Web that can't be accessed elsewhere, bravo! Look for Web sites that provide interactivity to speed student learning. What about all the hidden and blatant agendas floating behind the HTML of Web pages? Use these pages to challenge critical thinking, reading, and the synthesis of conflicting opinions. Also look for information that's so current it will be months before it arrived in the school library. Finally, provide learners with that rich array of information, images, opinion, etc. so that they can pick and choose what bits fit in their present semantic network.

Transformative Thinking

Ah-ha. That's what we're after. Yes students can learn a lot of information from the Web, but it offers so much more. When you think you've got your WebQuest shaping up, really look hard and long at what you're asking students to do. Look at their cognition, not their outputs here. What's going on in the learners' brains? The usual place in a WebQuest to engage learners in higher order thinking is during that phase when they come back together from developing expertise in their separate roles. The right way to do this is to give the groups a task that requires them to make new meaning, not just to assemble the separate pieces they have learned about. This is the tough part, but it's the critical piece. Good luck.

Real World Feedback

This is the final piece of the process that lets students know whether they were doing just one more classroom activity or whether their WebQuest experience was different and authentic. The golden era of the Web may be fading, that time when people on the Web found it charming and unique to be approached by an eager student's email message. Too many of these messages have been sent in a way that may have begun to turn potential mentors off. A couple tips here: 1) don't send all the students to the same person / Web site. It's better if students find their own feedback source from the Web community. 2) Students should use experts to test their hypothesis. That is, students have already done the information gathering, the discussing, and problem solving. Now they are approaching a real world expert for their expert opinions. NEVER let students send a **tell me all you know about...** message. They deserve what they get if they do ;-) Lastly, don't forget that you have plenty of opportunities for real world feedback right in your own communities.

The feedback doesn't have to be via the 'Net. Presentations, debates, letters to local papers, feedback from peers or parents all qualify and legitimize the students' efforts.

Conclusion

The conclusion doesn't have to be long, but you might look to achieve two or three things in this final short paragraph. First, it's nice if you return to the opener you used to introduce the WebQuest. There's nothing like symmetry to help the students' semantic networks to make a full circuit connection. Second, it's a good idea to talk about the cognitive skills students used during the WebQuest process. Research has shown that novice learners benefit when the cognitive tasks are made overt. Last, see if you can turn the students attention toward how what they learned applies to different topics and situations. If you can help them see how their learning can transfer to a new scenario, you've multiplied their learning exponentially. A lot of the WebQuest strategy is about learning to learn. Perhaps after engaging in a few WebQuests, students will have internalized the approach to learning and will not need this scaffolding. Cultivating self-motivated, expert learners is our goal after all.

Some Thoughts About WebQuests

[Bernie Dodge](#), San Diego State University

There are already thousands of schools connected in some way with the internet, and the number is increasing geometrically. There is no agreed upon terminology for the kinds of instructional activities they are creating for themselves, and the field would benefit from having a few clear categories to describe the new forms of learning environments now opening up to us. The purpose of this short paper is to give a name to what we're doing in EDTEC 596 and for the early stages of the Ed First Partnership and to propose a set of desirable attributes for such activities.

Definitions

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, optionally supplemented with videoconferencing. There are at least two levels of WebQuests that should be distinguished from one another.

Short Term WebQuests

The instructional goal of a short term WebQuest is knowledge acquisition and integration, described as Dimension 2 in Marzano's (1992) Dimensions of Thinking model. At the end of a short term WebQuest, a learner will have grappled with a significant amount of new information and made sense of it. A short-term WebQuest is designed to be completed in one to three class periods.

Longer Term WebQuest

The instructional goal of a longer term WebQuest is what Marzano calls Dimension 3: extending and refining knowledge. After completing a longer term WebQuest, a learner would have analyzed a body of knowledge deeply, transformed it in some way, and demonstrated an understanding of the material by creating something that others can respond to, on-line or off-. A longer term WebQuest will typically take between one week and a month in a classroom setting.

Critical Attributes

WebQuests of either short or long duration are deliberately designed to make the best use of a learner's time. There is questionable educational benefit in having learners surfing the net without a clear task in mind, and most schools must ration student connect time severely. To achieve that efficiency and clarity of purpose, WebQuests should contain at least the following parts:

1. An **introduction** that sets the stage and provides some background information.
2. A **task** that is doable and interesting.
3. A set of **information sources** needed to complete the task. Many (though not necessarily all) of the resources are embedded in the WebQuest document itself as anchors pointing to information on the World Wide Web. Information sources might include web documents, experts available via e-mail or realtime conferencing, searchable databases on the net, and books and other documents physically available in the learner's setting. Because pointers to resources are included, the learner is not left to wander through webspace completely adrift.
4. A description of the **process** the learners should go through in accomplishing the task. The process should be broken out into clearly described steps.

5. Some **guidance** on how to organize the information acquired. This can take the form of guiding questions, or directions to complete organizational frameworks such as timelines, concept maps, or cause-and-effect diagrams as described by Marzano (1988, 1992) and Clarke (1990).
6. A **conclusion** that brings closure to the quest, reminds the learners about what they've learned, and perhaps encourages them to extend the experience into other domains.

Some other non-critical attributes of a WebQuest include these:

1. WebQuests are most likely to be **group activities**, although one could imagine solo quests that might be applicable in distance education or library settings.
2. WebQuests might be enhanced by wrapping **motivational elements** around the basic structure by giving the learners a role to play (e.g., scientist, detective, reporter), simulated personae to interact with via e-mail, and a scenario to work within (e.g., you've been asked by the Secretary General of the UN to brief him on what's happening in sub-Saharan Africa this week.)
3. WebQuests can be designed within a **single discipline** or they can be **interdisciplinary**. Given that designing effective interdisciplinary instruction is more of a challenge than designing for a single content area, WebQuest creators should probably start with the latter until they are comfortable with the format.

Longer term WebQuests can be thought about in at least two ways: what thinking process is required to create them, and what form they take once created.

Thinking skills that a longer term WebQuest activity might require include these (from Marzano, 1992):

- | | |
|---|---|
| 1. Comparing:
articulating similarities

things. | Identifying and

and differences between |
| 2. Classifying:
definable categories on

attributes. | Grouping things into

the basis of their |
| 3. Inducing:
generalizations or

observations or analysis. | Inferring unknown

principles from |
| 4. Deducing:
consequences and

principles and | Inferring unstated

conditions from given

generalizations. |
| 5. Analyzing errors:
articulating errors in one's | Identifying and

own or others' thinking. |

- | | | |
|----|--|---|
| 6. | Constructing support:
support or proof | Constructing a system of
for an assertion. |
| 7. | Abstraction:
articulating the underlying

of information. | Identifying and

theme or general pattern |
| 8. | Analyzing perspectives:
articulating personal

issues. | Identifying and

perspectives about |

The forms that a longer term WebQuest might take are open to the imagination, since we have few existing exemplars to go by. Some ideas:

1. A searchable database in which the categories in each field were created by the learners.
2. A microworld that users can navigate through that represents a physical space.
3. An interactive story or case study created by learners.
4. A document that describes an analysis of a controversial situation, takes a stand, and invites users to add to or disagree with that stand.
5. A simulated person who can be interviewed on-line. The questions and answers would be generated by learners who have deeply studied the person being simulated.

Putting the results of their thinking process back out onto the internet serves three purposes: it focuses the learners on a tangible and hi-tech task; it gives them an audience to create for; and it opens up the possibility of getting feedback from that distant audience via an embedded e-mail form.

Examples

One example of a short term WebQuest is the [WebQuest 1](#) exercise that EDTEC 596 students completed a month ago. The goal was to give them a sense of how Archaeotype, a simulated archaeological dig, was conceived and implemented at two very different school sites. The exercise took about 2 hours and involved students working in groups to answer a series of questions. They were given a set of resources to read and interact with which included project reports and theoretical papers on the Web, copies of a portion of the Archaeotype documentation, and directions to go to another room and interact with a teacher at Juarez-Lincoln via video conference, or with a staff member at the Dalton School in New York via speakerphone. The students broke up into groups to experience each of these sources of data and then spent time telling each other what they'd learned. The end result was that each person in the class could explain what Archaeotype was and what problems and successes came with its implementation. Another example of a short term WebQuest is [WebQuest 2](#) in which the student teachers examined a number of web pages put up by schools. The point of the exercise was to expose them to a variety of ways in which a school could portray itself on the web in preparation for their creating the [O'Farrell](#) web pages. By the end of the exercise they were able to articulate general principles of good and not-so-good design for school web sites.

(I'm still looking for examples of a long term WebQuest and am eager to receive any suggestions.)

Design Steps

Learning to design WebQuests is a process that should go from the simple and familiar to the more complex and new. That means starting within a single discipline and a short-term WebQuest and then moving up to longer and more interdisciplinary activities. Here are the recommended steps:

1. The first stage for a teacher in learning to be a WebQuest designer is to become familiar with the resources available on-line in their own content area. Toward that end, we've prepared a [Catalog of Catalogs of Web Sites for Teachers](#). This provides short list of starting points for exploration broken down by subject matter discipline.

2. The next step is to organize one's knowledge of what's out there. Spending a few hours on [Non-WebQuest 3](#) will guide the teacher in organizing the resources in their discipline into categories like *searchable database, reference material, project ideas*, etc.

3. Following that, teachers should identify topics that fit in with their curriculum and for which there are appropriate materials on-line.

4. A [template](#) is available that guides the teacher through the process of creating a short-term, single discipline WebQuest.

By late April, we'll have multiple examples of these WebQuests available here while the students in EDTEC 596 move on to develop interdisciplinary WebQuests. The description of the design process for those more elaborate activities will be made available here on SDSU EdWeb as well.

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A WebQuest about WebQuests Elementary School Version by [Bernie Dodge](#)

Introduction

In the Spring, 1995 version of [EDTEC 596](#), [Tom March](#) and I drafted a format for web-based lessons. Our early thoughts are captured in the paper [Some Thoughts About WebQuests](#), which was later published in the journal *The Distance Educator*. In that paper, a WebQuest was defined as:

... an inquiry-oriented activity in which some or all of the information that learners interact with comes from resources on the internet...

Since that time, the WebQuest notion, simple though it is, has been adopted and adapted by teachers all over the country. Kathy Schrock in Massachusetts, for example, teaches it to her graduate students and developed an excellent [slide show](#) to explain the concept. [Classes and workshops elsewhere](#) are also spreading the word. In some cases, teachers created lessons that went beyond our early ideas; in others, it seems that they picked up on only part of what we were trying to communicate. We fret about that.

The Task

To develop great WebQuests, you need to develop a thorough understanding of the different possibilities open to you as you create web-based lessons. One way for you to get there is to critically analyze a number of webquest examples and discuss them from multiple perspectives. That's your task in this exercise.

By the end of this lesson, you and your group will answer these questions:

7. Which two of example WebQuests listed below are the *best* ones? Why?
8. Which two are the *worst*? Why?
9. What do *best* and *worst* mean to you?

Resources

Here are the sites you'll be analyzing:

- [In the Time of the Old Ones](#) - Explore the art and environment of the Navajo
- [Is There Water on the Moon?](#) - And if so, what could we do with it?
- [Sadako and the Paper Cranes.](#) - Go behind and beyond the book
- [Trekking the Santa Fe Trail](#) - Design a board game that captures the history
- [Weather Watchers](#) - What's the weather like today elsewhere in the world?

The Process

4. First, each participant will have a hard copy of [the worksheet](#). To answer the questions given above, you'll break into groups of four. Within the group, each of you will take on one of the following roles:

The Efficiency Expert: You value time a great deal. You believe that too much time is wasted in today's classrooms on unfocused activity and learners not knowing what they should be doing at a given moment. To you, a good WebQuest

The Affiliator: To you, the best learning activities are those in which students learn to work together. WebQuests that force collaboration and create a need for discussion and consensus are the best in your view. If a

is one that delivers the most learning bang for the buck. If it's a short, unambitious activity that teaches a small thing well, then you like it. If it's a longterm activity, it had better deliver a deep understanding of the topic it covers, in your view.

The Altitudinist: Higher level thinking is everything to you. There's too much emphasis on factual recall in schools today. The only justification for bringing technology into schools is if it opens up the possibility that students will have to analyze information, synthesize multiple perspectives, and take a stance on the merits of something. You also value sites that allow for some creative expression on the part of the learner.

WebQuest could be done by a student working alone, it leaves you cold.

The Technophile: You love this internet thang. To you, the best WebQuest is one that makes the best use of the technology of the Web. If a WebQuest has attractive colors, animated gifs, and lots of links to interesting sites, you love it. If it makes minimal use of the Web, you'd rather use a worksheet.

5. Individually, you'll examine each of the sites on the list of resources and use the worksheet to jot down some notes of your opinions of each from the perspective of your role. You'll need to examine each site fairly quickly. Don't spend more than 10 minutes on any one site.
6. When everyone in the group has seen all the sites, it's time to get together to answer the questions. One way to proceed would be to go around and poll each team member for the best two and worst two from their perspective. Pay attention to each of the other perspectives, even if at first you think you might disagree with them.
7. There will probably not be unanimous agreement, so the next step is to talk together to hammer out a compromise consensus about your team's nominations for best and worst. Pool your perspectives and see if you can agree on what's best for the learner.
8. One person in each group should open up SimpleText or Inspiration to record the group's thoughts.
9. When debriefing time is called, use this file to speak from as you report your results to the whole class. Do you think the other groups will agree with your conclusions?

Conclusion

Ideally, this exercise will provide you with a larger pool of ideas to work with on your final project. The best WebQuest is yet to be written. It might be yours!

Bernie Dodge's WebQuest Template

Put Your Title Here

Write a short paragraph here to introduce the webquest to the students. If there is a role or scenario involved (e.g., "You are a detective trying to identify the mysterious poet.") then here is where you'll set the stage. If there's no motivational intro like that, use this section to provide a short advance organizer or overview.

The Task

Describe crisply and clearly what the end result of the learners' activities will be. The task could be a:

- series of questions that must be answered,
 - summary to be created,
 - problem to be solved,
 - position to be formulated and defended,
 - creative work, or
 - anything that requires the learners to process and transform the information they've gathered.
-

Resources

Use this space to point out places on the internet (or physical resources in the classroom) that will be available for the learners to use to accomplish the task. Embed the anchors within a description of each resource so that your learners know in advance what they're clicking on.

[Sammamish High School](#) in Washington state has an impressive home page. (This is just an example sentence with an anchor embedded within it.)

The Process

To accomplish the task, what steps should the learners go through? Use the ordered list tag (ol) which will automatically number the steps in the procedure. Be sure to put a (li) before each item in the list, and close off the list with a (/ol). (Use angle brackets rather than parentheses).

10. This is step one.
 11. This is the second step.
 12. ... and so on.
-

Learning Advice

Here you would provide some guidance on how to organize the information gathered. This advice could include suggestions to use flowcharts, summary tables, concept maps, or other organizing structures. The advice could also take the form of a checklist of questions to analyze the information with, or things to notice or think about.

It's possible that the learning advice would flow best if merged in with the process description. If you're providing a lot of advice, or if the data gathering and analysis process has more than a few steps, it might be best to break Learning Advice out to a separate section.

Conclusion

Put a couple of sentences here that summarize what they will have accomplished or learned by completing this webquest. You might also include some rhetorical questions that encourage them to extend their thinking into other content.

This page written by [Bernie Dodge](#). Last updated April 7, 1995.

A Draft Rubric for Evaluating WebQuests

The WebQuest format can be applied to a variety of teaching situations. If you take advantage of all the possibilities inherent in the format, your students will have a rich and powerful experience. This rubric will help you pinpoint the ways in which your WebQuest isn't doing everything it could do. *If a page seems to fall between categories, feel free to score it with in-between points.*

	Beginning	Developing	Accomplished	Score
Overall Aesthetics (This refers to the WebQuest page itself, not the external resources linked to it.)				
Overall visual appeal	0 points Background is gray. There are few or no graphic elements. No variation in layout or typography. OR Color is garish and/or typographic variations are overused and legibility suffers.	1 point There are a few graphic elements. There is some variation in type size, color, and layout.	2 points Appealing graphic elements are included appropriately. Differences in type size and/or color are used well.	
Introduction				
Motivational effectiveness of Introduction	0 points Introduction is purely factual, with no appeal to relevance or social importance.	1 point 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 goals and/or engagingly describing a compelling question or problem.	
Cognitive effectiveness of the Introduction	0 points Introduction doesn't prepare the reader for what is to come, or build on what the learner already knows.	1 point 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 by explicitly mentioning important concepts or principles, and effectively prepares the learner for the lesson by foreshadowing new concepts and principles.	
Task (The task is the end result of student efforts... not the steps involved in getting there.)				
Cognitive level of the task	0 points Task requires simply comprehending web pages and answering questions.	3 points Task requires analysis of information and/or putting together information from several sources.	6 points Task requires synthesis of multiple sources of information, and/or taking a position, and/or going	

			beyond the data given and making a generalization or creative product.	
Technical sophistication of task	0 points Task requires simple verbal or written response.	1 point Task requires use of word processing or simple presentation software.	2 points Task requires use of multimedia software, video, or conferencing.	
Process (The process is the step-by-step description of how students will accomplish the task.)				
Clarity of Process	0 points Process is not clearly stated. Students would not know exactly what they were supposed to do just from reading this.	1 point Some directions are given, but there is missing information. Students might be confused.	2 points Every step is clearly stated. Most students would know exactly where they were in the process and what to do next.	
Richness of process	0 points Few steps, no separate roles assigned.	3 points Some separate tasks or roles assigned. More complex activities required.	6 points Lots of variety in the activities performed. Different roles and perspectives are taken.	
Resources (Note: you should evaluate all resources linked to the page, even if they are in sections other than the Resources block. Also note that books, video and other offline resources can and should be used where appropriate.)				
Quantity of resources	0 points Few online resources used.	1 point Moderate number of resources used.	2 points Many resources provided, including off-line resources.	
Quality of resources	0 points Links are mundane. They lead to information that could be found in a classroom encyclopedia.	2 points Some links carry information not ordinarily found in a classroom.	4 points Links make excellent use of the Web's timeliness and colorfulness.	
Evaluation				
Clarity of Evaluation Criteria	0 points Students have no idea on how they'll be judged.	1 point Criteria for success are at least partially described.	2 points Criteria for gradations of success are clearly stated, perhaps in the form of a rubric for self-, peer-, or teacher use.	
Total Score				

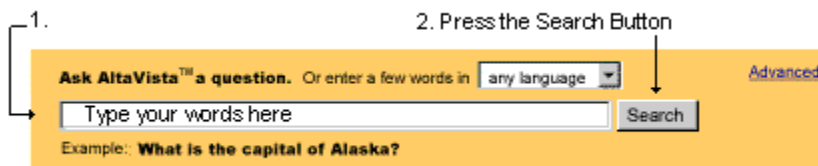
This is Version 1.01. Last updated January 18, 1998 by [Bernie Dodge](#).

How to Use Altavista's Search Engine

The Basics

The AltaVista search service helps you find documents on the World Wide Web. Here's how it works. You tell the search service what you're looking for by typing in keywords, phrases, or questions in the search box. The search service responds by giving you a list of all the Web pages in our index relating to those topics. The most relevant content will appear at the top of your results.

A Quick Look at the Search Box



How To Use:

1. Type your keywords in the search box.
2. Press the Search button to start your search.

Here's an example:

1. Type **recipe oatmeal raisin cookies** in the search box.
2. Press the **Search** button or press the **Enter** key.
3. The Results page will show you numerous pages on the Web about recipes for oatmeal raisin cookies.

Tip: Don't worry if you find a large number of results. In fact, use more than a couple of words when searching. Even though the number of results will be large, the most relevant content will always appear at the top of the result pages.

More Basics - An Overview

Here's a quick overview of the rest of our Basic Help. Just click on the links to jump to these sections.

[What is an 'Index'?](#)

[What is a word?](#)

[What is a phrase?](#)

[Simple Tips for More Exact Searches](#)

[Fancy Features for Typical Searches](#)

What is an `Index'?

Webster's dictionary describes an `index' as "a sequential arrangement of material." Our index is a large, growing, organized collection of Web pages and discussion group pages from around the world. The `index' becomes larger everyday as people send us the addresses for new Web pages. We also have

technology that crawls the Web looking for links to new pages. When you use our search service, you search the entire collection using keywords or phrases. [Back to Questions](#)

What is a word?

When searching, think of a word as a combination of letters and numbers. The search service needs to know how to separate words and numbers to find exactly what you want on the Internet. You can separate words using white space and tabs. [Back to Questions](#)

What is a phrase?

You can link words and numbers together into phrases if you want specific words or numbers to appear together in your result pages. If you want to find an exact phrase, use "**double quotation marks**" around the phrase when you enter words in the search box.

Example #1: To find lyrics by the King, type "**you ain't nothing but a hound dog**" in the search box.

You can also create phrases using punctuation or special characters such as dashes, underscore lines, commas, slashes, or dots.

Example #2: Try searching for **1-800-999-9999** instead of **1 800 999 9999**. The dashes link the numbers together as a phrase. [Back to Questions](#)

Simple Tips for More Exact Searches

Viewing your search results in your native language:

Using the Language pull-down menu in the search box, you can find all the documents on the Web about a given topic, originally written in a specific language. This type of search excludes other Web sites written in other languages so that you can make your search even more exact.

Example: If you select the **Italian** pull-down option when searching for **Roma**, you will see result pages including the word **Roma** written on **Italian** Web pages.

When in doubt, use lowercase text in your searches.

When you use lowercase text, the search service finds both upper and lowercase results. When you use upper case text, the search service finds only upper case.

Example: When you search for **paris**, you'll find **Paris, paris, and PARIS** in your result pages. However, when you search for **Paris**, you'll only see **Paris** in the result pages.

Including or excluding words:

To make sure that a specific word is always included in your search topic, place the plus (+) symbol before the key word in the search box. To make sure that a specific word is always excluded from your search topic, place a minus (-) sign before the keyword in the search box.

Example: To find recipes for cookies with oatmeal but without raisins, try **recipe cookie +oatmeal -raisin**.

Expand your search using wildcards (*):

By typing an * at the end of a keyword, you can search for the word with multiple endings.

Example: Try **wish***, to find **wish, wishes, wishful, wishbone,** and **wishy-washy**. [Back to Questions](#)

Advanced Help

When should you use Advanced search?

Advanced search is for very specific searches and not for general searching. Almost everything you need to search for can be found quickly and with better results using the standard search box, where the AltaVista search services sorts the results by placing the most relevant content first. However, if you need to find documents within a certain range of dates or if you have to do some complex Boolean searches there isn't a more powerful tool on the Web.

What's the difference between Search and Advanced search?

Words and phrases work the same in both Search and Advanced search. You can also choose to search Usenet or refine your search using either tool. The include (+) or exclude (-) features are not available in Advanced Search. Instead, you can use the more powerful Boolean commands to customize your search. Another difference is that you can choose to see results without having our system rank the material for you.

What are Boolean Operators?

You can create specific relationships among keywords or phrases using **(brackets), OR, NOT, AND, NEAR** commands in the Boolean Operator section below the search box.

Ke yw or d	Symbol	Action
AN D	&	Finds only documents containing all of the specified words or phrases. Mary AND lamb finds documents with both the word Mary and the word lamb.
O R		Finds documents containing at least one of the specified words or phrases. Mary OR lamb finds documents containing either Mary or lamb. The found documents could contain both, but do not have to.
N O T	!	Excludes documents containing the specified word or phrase. Mary AND NOT lamb finds documents with Mary but not containing lamb. NOT cannot stand alone--use it with another operator, like AND. For example, AltaVista does not accept Mary NOT lamb ; instead, specify Mary AND

		NOT lamb.
NEAR	~	Finds documents containing both specified words or phrases within 10 words of each other. Mary NEAR lamb would find the nursery rhyme, but likely not religious or Christmas-related documents.

What do you mean by the term 'ranking'?

Usually, the search service sorts or "ranks" the contents of your search according to relevance. The higher the ranking, the more relevant the content. However, in Advanced Search you can view 'unranked' results by just using the Boolean Operations section and not the regular search box.

Using Web Archeology:

Using the **Range of dates** section, you can practice "Web Archeology". Try using the example below to find documents created during the early years of the Internet. In general, if you forget to include the **month** or **year**, the search service will use the current month and year.

Example: From: 01/jan/95

To: 01/jan/96

Note: The Range of dates section is very helpful when you want to search Usenet articles over a specific period of time.

How to Use:

Here's a sample Advanced search.

2. Order your results by the words you type.

The screenshot shows the AltaVista search interface. At the top, there is a search box containing the text "noodles peanuts carrots" and a "Search" button. Below the search box is a section for advanced search options. On the left, there is a "Boolean expression:" field containing "(chinese OR japanese) AND cooking". On the right, there is a "Range of dates:" section with "From:" and "To:" input fields, and an example "e.g.: 21/Mar/96". At the bottom left, there is a checkbox labeled "Count documents matching the boolean expression." which is currently unchecked.

1. Type your Boolean expression here.

13. Type **(chinese OR japanese) AND cooking** in the Boolean expression box. This Boolean expression will find all the documents containing Chinese cooking or Japanese cooking.
14. Type **noodles peanuts carrots** in the Search box. This step orders the cooking documents so that **noodles peanuts** and **carrots** appear at the top of your results.
15. Press the **Search** button.

Optional: You can choose to see results over a specific date range by filling in the Range of Dates section.

Optional: Check the **Count documents matching the boolean expression** box, if you want to see only the number of results for your search.

Notes:

- If you just fill in a Boolean expression, you will see unranked or unsorted results.
- If you do not fill in a Boolean expression, Advanced search will work like Search and will rank keywords as they appear in the search box.

The Refine Function

What is Refine?

The Refine tool dynamically sorts your results into different topics to help you become more exact with your search keywords. It works like a dynamic thesaurus by giving you suggested good keywords to make your search more precise. The **Refine** button sits beside the **Search** button in the search box.

Note: Refine has tried on a few different names in the past. You might know it by code name "Cow9" or LiveTopics. To make things more clear, we have decided to call this tool Refine throughout the new user interface.

How to use Refine

16. Enter your search term or terms in the search box and click on the **Refine** button. You'll see the Refine List View, which lists topics in order of their likely relevance to your search.
17. Select **Require** or **Exclude** from the drop-down menus provided with each topic. If you select **Require**, the associated topic will always be included in your results. If you select **Exclude**, you will never see the associated topic in your results.

Note: It is better to select **Require** or **Exclude** for only a few topics.

18. Click either **Search** or **Refine Again**:
 - Pressing the **Search** button begins the refined search based on the Require or Exclude settings you selected.
 - Pressing the **Refine Again** button generates a new Refine list, based on the Require or Exclude settings you selected.

Notes:

- You can continue to refine the search as many times as you want. Just click on the **Search** button when you're ready.

- After you resubmit a search, the results screen appears, displaying your original keywords along with a line below the search box telling you that Refine selections are available.
- If you want to clear your Refine selections and return to your original search results, click on the check box called **Refined by**. The **Refine by** check box appears directly below the search box. You should remove the check mark and press the **Search** button again.

Tip: Try refining a technical or medical term or an acronym and you will gain a quick understanding of the meaning from the list of related words on the Refine page.

The Graphical View of Refine

You can also use a graphical version of refine by pressing the **Graph** button above the **Search** and **Refine Again** buttons on the upper and lower far left hand side of the Refine screen. The graphical view shows you the relationship between suggested keywords and features a drop-down menu of further associated keywords. The graphical view allows you to require or exclude specific words in the topic areas.

Note: The graphical view uses Java. If your browser is not Java-enabled, it will take you a few minutes to load the Java applet the first time.

10. Enter your search term or terms and press the **Search** button.
11. When you see the results list displayed, click on the **Refine** button. You'll see the List View of the Refine screen.
12. Click the **Graph View** button. A map of expandable topics appears. The percentages to the right of each word in a topic indicate the probable relevance of that word to your search. The higher the number, the more relevant a word for your search.
13. **Require** or **Exclude** entire topics or just specific words within the topic:
 - Move your cursor over a topic to display all of the words in the group.
 - Click once in the checkbox next to a topic or word to require it in search results (a green check mark appears). Click twice in a checkbox to exclude a word (a red X appears).
 - Undo a **Require** or **Exclude** selection by clicking on the checkbox until it becomes blank.
 - Move the topic boxes around the screen by clicking a topic, dragging it to a new location, and releasing the mouse button.
14. Click either **Search** or **Refine Again**:
 - Clicking **Search** begins the refined search based on the Require or Exclude settings you selected.
 - Clicking **Refine Again** generates a new Refine list, based on the Require or Exclude settings you selected.

Notes:

- You can continue to refine the search as many times as you want. Just click on the **Search** button when you're ready.
- After you resubmit a search, the results screen appears, displaying your original keywords along with a line below the search box telling you that Refine selections are available.
- To return to the List view, click on the **List** button in the upper right hand corner of the screen.

Tip: You can make Graph View your Refine default! Just click Preferences on the main AltaVista page and follow the instructions.

Copernic 98 Multiple Engine Search Device

Creating a New Search

This function is used to set the search query, the channel set and search parameters. The program features a wizard and a classic mode to create a new search. Clicking on the bottom left icon of the New Search window allows you to switch from one mode to the other.

In classic mode, the New Search window allows to create a search with two tabs.

Query tab

Select the most appropriate channel set for your search. All channel sets are available with Copernic 98plus, and only three are available with the free Copernic 98. The Properties button of this window opens the Channel Set Properties window.

Specify the significant keywords to search for. Each word must be separated by a space.

Select one of the three choices offered:

- search for all words: returns will include every keyword entered (and)
- search for any word: returns will include at least one keyword (or)
- search for exact phrase: returns will include the exact phrase entered ("...")

Possible modes of entry of search keywords are:

- one word or a simple sequence of words (e.g.: sport health benefits)
- a sequence of words in quotation marks (e.g.: "Albert Einstein")
- a combination of the first two options (e.g.: "Albert Einstein" relativity)

The combination of significant words help to narrow the search of documents. Please note that Boolean operators (AND, OR) are only available with the Refine function (see Refining a Search).

Parameters tab

This tab allows you to modify the default search scheme. Each scheme sets the maximum number of matching documents to retain respectively for each channel and for the entire search. Four schemes are available: Quick search (10/100), Normal search (20/200), Detailed search (30/300) and Custom (user defined). You may set the Custom scheme to a maximum of 300 results per channel and a maximum total of 1000 results.

To modify the default search scheme of the selected channel set, or for all sets, click on the Defaults button.

In most cases, you should obtain enough results using the default choices. In the case of an exhaustive search, it is advisable to obtain a maximum number of results before using the Validate Documents and Refine Search functions. However, you should remember that the search will take longer and that the amount of space required on the hard disk will be greater.

The updating of channels and the software update checking are automatically made once a week. The channel updating may, for instance, add channels or channel sets, and modify or remove channels.

Refining A Search

This function allows you to refine downloaded documents by using Boolean operators with keywords of a refine query. This can be done on all results of a search or to selected results only.

The refine must be performed with Boolean operators placed between the keywords of a search.

Query formulation

Specify the significant keywords to search for. Here are some possible modes of entry of a search query:

- one word (e.g.: sport)
- a simple sequence of words (e.g.: sport AND health AND benefits, sport AND health OR benefits, sport AND health EXCEPT boxing)
- a sequence of words in quotation marks (e.g.: "Albert Einstein")
- a combination of the two preceding options (e.g.: "Albert Einstein" AND relativity OR mathematics, "Albert Einstein" OR "Marie Curie")

The combination of significant words should help to narrow the search for documents.

Some guidelines about Boolean operators (the use of capital letters is only for better clarity)

AND: For a more specific query, use this Boolean operator. It limits results to those documents that contain all of the search terms in your query. For instance, using these search queries: sport AND health AND benefits, the search query should retrieve only those documents containing all three words in the same document.

OR: This operator may be useful for the first phases of a search, when you are not exactly sure what information is available on your topic or what words are used to categorize it. When used

between two words, the OR operator instructs the search tool to retrieve any document containing either of the words. This Boolean operator returns the most found documents. Indeed, search queries containing OR are very broad and may often return documents that are not relevant.

EXCEPT (AND NOT): This operator is used to ignore documents containing a particular word or combination of words from your search results. For instance, if you are performing a search on "sport" and "health", you may wish to exclude documents dealing with "boxing". To make this exclusion, you could construct your search query as: sport AND health EXCEPT boxing. This search would identify all documents containing the words "sport" and "health" except for those that also contain the word "boxing" as illustrated below.

OR NOT: The use of these two combined operators is to include in results any documents else than those referred to a particular word or combination of words in your search results. For instance, if you are performing a search on "sport" and "health", you might wish to consider also all other documents not dealing with "boxing". This search would return all documents containing the words "sport" and "health" plus any others which do not contain the word "boxing" as illustrated below. For instance, if you are performing a search as: sport AND health OR NOT boxing, the search would consider all documents containing the words "sport" and "health" and all other documents which do not contain the word "boxing".

By browsing through your results list, you may determine whether or not your query is returning relevant documents. Then, you may construct a search query using the Boolean operators OR, AND, EXCEPT and OR NOT to improve its results.

If you are sure that a certain phrase exists on the page you are looking for, you may put the phrase in quotes. For example, you may write the title of a song, as this one from Elvis Presley: "Love me Tender".

Summary

AND: Finds only documents containing all of the specified words or phrases.

OR: Finds documents containing at least one of the specified words or phrases. The found documents could contain all, but do not have to.

EXCEPT (AND NOT): Excludes documents containing the specified word or phrase. You may write AND NOT instead of EXCEPT.

OR NOT: Includes all other documents than those referred to a particular word or combination of words.

Advanced refining

Users wishing to refine with a sophisticated search query may consider these examples which are presented only as illustration:

Example 1: (sport and health) or "physical education" or "web surfing"

Example 2: not ((sport or health) and "physical education" and not "web surfing")

Example 3: (sport and health and "physical education") except "web surfing"

WebQuest Links

Elementary 'Quests

[History] [Ancient Egypt](http://www.slc.k12.ut.us/webweavers/kathyp/egypt.html) - A WebQuest by Ms. Phillips at Backman Elementary School, Salt Lake City School District
www.slc.k12.ut.us/webweavers/kathyp/egypt.html

[Social Studies] [A WebQuest About Your Town, County and State](http://www.slc.k12.ut.us/webweavers/chrisw/Ut_towns.html) - A WebQuest by Mr. Wright at Riley Elementary School, Salt Lake City School District - www.slc.k12.ut.us/webweavers/chrisw/Ut_towns.html

[Science] [A Breath of Fresh Air!](http://www.slc.k12.ut.us/webweavers/barbaral/air2.html) - A WebQuest on Air Quality by Ms. Woolley and Ms. Lewis, Jackson Elementary School Salt Lake City School District - www.slc.k12.ut.us/webweavers/barbaral/air2.html

[Language Arts] [What Will I Be When I Get Big](http://www.slc.k12.ut.us/webweavers/johnc/my_life.html) - A WebQuest on creating a personal mission statement by Mr. Clay, Meadowlark Elementary School Salt Lake City School District
http://www.slc.k12.ut.us/webweavers/johnc/my_life.html

[Science] [Amazing Animals](http://www.slc.k12.ut.us/webweavers/listwebquests.html) - A WebQuest on animals by Ms. Bentley, Hawthorne Elementary School Salt Lake City School District
www.slc.k12.ut.us/webweavers/listwebquests.html

[Science] [Utah's Animal Kingdom](http://www.slc.k12.ut.us/webweavers/marileey/Ut_an.html) - A WebQuest on animals from Utah by Ms. York, Riley Elementary School Salt Lake City School District
www.slc.k12.ut.us/webweavers/marileey/Ut_an.html

[History] [Middle Ages Research Project](http://www.bres.boothbay.k12.me.us/wq/sfrisco/medieval%20webquest/Student_Page.htm) - Susan Frisco, Boothbay Region Elementary School
www.bres.boothbay.k12.me.us/wq/sfrisco/medieval%20webquest/Student_Page.htm

[Language Arts] [Little Red Hen and Sequencing](http://www.bres.boothbay.k12.me.us/wq/nnash/WebQuest/Student_page.htm) - Nancy Nash, Boothbay Region Elementary School
www.bres.boothbay.k12.me.us/wq/nnash/WebQuest/Student_page.htm

[Language Arts] [Fairies, Folks and Tales](http://www.bres.boothbay.k12.me.us/wq/lspaulding/Teacher_page.htm) - Lucy Ann Spaulding, Boothbay Region Elementary School - www.bres.boothbay.k12.me.us/wq/lspaulding/Teacher_page.htm

[Language Arts] The World of Puppets - www.itdc.sbcss.k12.ca.us/curriculum/puppetry.html

[Science] Weather Watchers - www.itdc.sbcss.k12.ca.us/curriculum/weather.html

[Science] Zelda's Zany Zoo - www.itdc.sbcss.k12.ca.us/curriculum/zanyzoo.html

[Art] Art for Sale - www.itdc.sbcss.k12.ca.us/curriculum/artforsale.html

[Science] Sharks: Mighty Predators of the Ocean - www.memphis-schools.k12.tn.us/admin/tlapages/shark.htm

Secondary 'Quests

[Geography] [Traveling through Utah](#) - A WebQuest by Ms. Blake at Northwest Middle School, Salt Lake City School District
www.slk.k12.ut.us/webweavers/kathyb/ut_tour.htm

[Language Arts] "To Kill A Mockingbird": Growing Up in the 1930s - A WebQuest on 'To Kill A Mockingbird' by Ms. Olsen-Clark and Ms. Hedberg, Horizonte Training Center Salt Lake City School District www.slk.k12.ut.us/webweavers/janh/mbird.html

[History] [Digging Into Ancient Egypt](#) - Elaine Walsh, Southport Central School - www.bres.boothbay.k12.me.us/wq/ewalsh/egypt_student_file.htm

[Science] Comet Quest
www.slk.k12.ut.us/webweavers/suea/cometweb.htm

[History] Sworn to Serve
www.itdc.sbcss.k12.ca.us/curriculum/sworntoserve.html

[Science] Searching for Just the Right Planet
www.memphis-schools.k12.tn.us/admin/tlapages/solar_sy.htm

[Science] Will That Volcano Spoil Our Party?
www.memphis-schools.k12.tn.us/admin/tlapages/volcano.htm

[History] Knights Of Medieval Europe And Their Armor - www.plainfield.k12.in.us/hschool/webq/webq59/page1.htm

[History] Avoid It Like the Plague!!!
<http://students.itec.sfsu.edu/edt628/ascendedone/plagueII.html>

[Social Studies] Searching for China
www.kn.pacbell.com/wired/China/ChinaQuest.html

Resources

The WebQuest Workshop by Brendon White - An excellent starting point
www.oxford.net/~ocbe/WebQuest/webquest.htm

The WebQuest Page by Bernie Dodge - Where it all started.
<http://edweb.sdsu.edu/webquest/webquest.html>

om March's Learning Pages - Excellent resource from the source
www.ozline.com/learning/

Kathy Schrock's Guide for Educators - Yet another excellent resource
<http://discoveryschool.com/schrockguide/>

Filamentality - A truly unique, step-by-step approach to 'Questing
<http://www.kn.pacbell.com/wired/fil/#intro>

Blue Web'n Learning Sites Library - A very large on-line, project-driven site
<http://www.kn.pacbell.com/wired/bluwebn/#table>