WebQuests: An Introduction and Management Tips

Exploring a WebQuest

Building Blocks of a WebQuest:

Putting a WebQuest together is not much different from creating any kind of lesson. It requires getting your learners oriented, giving them an interesting and doable task, giving them the resources they need and guidance to complete the task, telling them how they'll be evaluated, and then summarizing and extending the lesson.
You can think of each of these parts as a separate building block, By changing each of the blocks, you can use this structure to accomplish a wide range of learning goals.

A WebQuest has 6 basic, but critical components:

- **Introduction**
- **Task**
- **Process**
- **Resources**
- **Evaluation**
- **Conclusion**

The following information describing each element is adapted from the WebQuest Home Page.
(From http://edweb.sdsu.edu/people/bdodge/webquest/buildingblocks.html, Accessed on 2/25/01) For more information and examples of each component go to Building Blocks of a WebQuest http://projects.edtech.sandi.net/staffdev/buildingblocks/p-index.htm.)

Introduction

The purpose of the Introduction section of a WebQuest is two fold: first, it's to orient the learner as to what is coming. Secondly, it should raise some interest in the learner through a variety of means. It can do this by making the topic seem...

- relevant to the learner's past experience
- relevant to the learner's future goals
- attractive, visually interesting
- important because of its global implications
- urgent, because of the need for a timely solution
- fun, because the learner will be playing a role or making something

Task

The Task block in a WebQuest is a description of what the learner will have done at the end of the exercise. It could be a product, like a HyperStudio stack or PowerPoint presentation, or it might be a verbal act, such as being able to explain a specific topic.

Process

The Process block in a WebQuest where the teacher suggests the steps that learners should go through in completing the task. It may include strategies for dividing the task into subtasks, descriptions of roles to be played or perspectives to be taken by each learner. The instructor can also use this place to provide learning advice and interpersonal process advice, such as how to conduct a brainstorming session. The Process description should be relatively short and clear.

Resources

The Resources block in a WebQuest is a list of web pages which the instructor has located that will help the learner accomplish the task. The Resources are pre-selected so that learners can focus their attention on the topic rather than surfing aimlessly.

It's important to note that resources for the students are not restricted to those found on the web.

Very often, it makes sense to divide the list of resources so that some are examined by everyone in the class, while others are read by subsets of learners who are playing a specific role or taking a particular perspective. By giving separate data sources to learners, you ensure the interdependence of the group and give the learners an incentive to teach each other what they've learned.

Evaluation

The Evaluation block describes the evaluation criteria needed to meet performance and content standards. Clearly, if we're going to justify the expense of using the web for learning, we need to be able to measure results. Since the learning we're looking for is at the loftier reaches of Bloom's Taxonomy, we can't gauge it with (readily) with a multiple-choice test. An evaluation rubric is called for.

Evaluation rubrics and tools would take a different form depending on the kind of task given to the learner. The evaluation tool describes to the learners how their performance will be evaluated and also specifies whether there will be a common grade for group work vs. individual grades.

Conclusion

The Conclusion section of a WebQuest provides an opportunity to summarize the experience, to encourage reflection about the process, to extend and generalize what was learned, or some combination of these. It's not a critically important piece, but it rounds out the document and provides that reader with a sense of closure. One good use for the conclusion section is to suggest questions that a teacher might use in whole class discussion to debrief a lesson.

The Teacher Page

The teacher page is a component found in some WebQuests. It includes information to help other teachers implement the WebQuest, including: target learners, standards, notes for teaching the unit, and, in some cases, examples of student work.

F r a m e w o r k s

Some Ideas from Tom March (co-creator of the WebQuest format):

> "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. . . [H]ere 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. [NOTE: Many WebQuest activities may be done without the web with a little modification.]
>
> **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 stepfather 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."

(From http://www.ozline.com/webquests/intro.html, Accessed on 02-25-01.)

Incorporating a WebQuest into your curriculum can be easier if you use a non-traditional approach to instruction. Project-based learning, constructivism and engaged learning all lend themselves perfectly to technology integration and higher-level thinking skills and offer a glimpse into how it may look in your classroom.

- **Project-based Learning**

CONTENT: Compelling ideas ▪ Problems presented in their full complexity ▪ Students finding interdisciplinary connections between ideas ▪ Students struggling with ambiguity, complexity, and unpredictability ▪ Real-world questions that students care about	**CONDITIONS:** Support student autonomy ▪ Students taking part in a community of inquiry and pursuing coursework in a social context ▪ Students being called upon to exhibit task- and time-management behaviors both individually and as part of the group ▪ Students directing their own work and taking control over their own learning ▪ Students simulating the professional work of the scholar, researcher, engineer, reporter, planner, manager, and other practitioners
ACTIVITIES: Investigative and engaging ▪ Students conducting multi-faceted investigations extending over long periods of time ▪ Students encountering obstacles, seeking resources, and solving problems in response to an overall challenge ▪ Students making their own connections among ideas and acquiring new skills as they work on different tasks ▪ Students using authentic tools (i.e., real-life resources and technologies) ▪ Students getting feedback about the worth of their ideas from expert sources and realistic tests	**RESULTS:** Real-world outcomes ▪ Students generating complex intellectual products that demonstrate their learning (e.g., models, reports) ▪ Students participating in their own assessment ▪ Students held accountable for choosing how they will demonstrate their competence ▪ Students exhibiting growth in frequently neglected areas important for real-world competence: social skills, life skills, self-management skills, and dispositions to learn on one's own

- **Constructivist Learning**

  You will find information on constructivist learning at http://carbon.cudenver.edu/~mryder/itc/constructivism.html.

- **Engaged Learning**

  This web site contains the model for engaged learning developed by NCREL: http://www.ncrel.org/sdrs/areas/issues/content/cntareas/math/ma2lindi.htm.

Managing Students and the Technology

A key to new instructional approaches is classroom management. You have to have a solid, yet flexible management system in place to implement project-based approaches. It's key that you are able to work with your students and address issues as they occur, so that environment is open enough for inquiry and experimentation, yet closed enough to eliminate the possibility of chaos.

Scheduling:

There are several different methods for scheduling students. Read through the following and find the one that fits your needs.

- **Sign Up:** Students write their names on a sign in sheet when they are ready to use the computer. When they finish, they cross off their name and get the next person.
- **Checklist:** Students' names are listed on a checklist. As each student has a turn or completes his/her project the teacher checks off the child's name.
- **Craft Sticks:** Write each student's name on a craft stick and place in a decorative **"I'm Not Done"** can. When they have completed their activity, the stick is placed in the **"I'm Done"** can.
- **Card File:** Each student has his/her name written on a business-size card or 3x5 card. These are put in a basket. When the student is finished, he takes his card off the top and puts it in another basket. The order of these cards can be easily rearranged depending upon the project. These cards can also be put on a binder ring and turned to the back of the stack when the student has finished his/her turn.
- **Assign Times:** Students are assigned the same time everyday or each week.
- **Rotation:** One group works on the computer. After a set time period, they move to another activity and the next group works on the computer. This continues until all groups have a turn. A rotation schedule may take a day or even a week. Another way would be to use a wheel that is divided into four parts. In each part, have a picture of the activities. On the outer wheel write the names of the students. Move the wheel when it is time for the groups to rotate. Students can see where they should be working.

Lots and Lots of Management Tips:

- Make schedule self rotating (When a student's turn is finished, they get the next student.)
- Have time limits – a kitchen timer works well for this by having the students set the timer.
- Train student experts – select 2 0r 3 students to be the experts. They can help others instead of interrupting lessons.
- Face computers away from class.
- Encourage problem solving and independence.
- Print after school or at recess whenever it is convenient for you.
- Use computers all day.
- Have students work with a partner.
- If your computers and monitors are separate, ask students to turn off the monitors if you need their attention.

- Coach your students: Give students information about how they are performing during class. Take a moment at the end to critique performance and offer expectations for the next day. (This critique need not be negative.)
- As you approach a new activity, discuss the pitfalls and expectations for performance with your students.
- Practice! (My goal was always to be able to have my classroom run itself as much as possible.) Teaching is very much like coaching, so along with automation and discussing expectations, practice important behaviors with your students. Cooperative learning or going to the computer lab may not go smoothly the first time, but if you are communicating well with your students, practice will make perfect.
- Put the kids in charge of managing aspects of behavior. Create a system of managers or assistants that may change with activities.
- Automate! Use the technology at your disposal to assist in management. If there's a common question that may be answered with a simple reminder sign, don't waste time answering it over and over. Make your kids self-sufficient by filling your classroom with information they know is there and may access easily.
- Establish a routine for project-based learning activities so that you are not always the focus of attention. One of the nice things about this type of classroom is that you usually have more time to work with individuals and groups as the other students are working away. The focus moves from the instructor to the work.
- If you're doing a long-term project, post a progress board in your classroom. At the beginning of the project, set up frequent checks in order to monitor progress. Do these as frequently as your students need them in order to stay focused and involved. Give each student a checklist of these dates and expectations. Send a copy home to parents.
- You may experience more noise in your classroom. It may be hard to get used to or you may worry that your principal will think you've lost your mind. Keep key people, like your principal and neighboring colleagues, informed about what you are doing, i.e., brag a little and show off the good work your kids are doing.
- Display and distribute student work as much as possible. If students are doing projects, they should have a wider audience than the classroom. Adding the element of a real audience will help to improve the quality of integration and student products.
- Involve your parents and guardians. Send information home. Have your own open house or celebration. You might only get a few people the first time, but stay with it and eventually you'll get more.
    - It's important to prep your kids before entering the lab. Make sure they know the expectations before the first computer is turned on. If you do cover this information in your classroom or away from your computers, you can be assured of their full attention. If you have some particular or specific rules (like not using the microphones) tell kids ahead of time.
    - Do as much prep work as possible before entering a lab or going to the computers. Ask students to create rough drafts, do storyboarding, sketch out a picture or plan their searches before entering. Your time with the technology is probably precious, so make the most of it.
    - Make the technology necessary to running your class. If kids know that the class work depends on the technology, they will take good care of it.
    - Reward and share good ideas. If you see a student doing something new or innovative, share it with the class. Keep a running list of good ideas in your classroom.

- If you only want students to use specific web sites, create a quick document with those links. If you don't have access to a web site you can edit when necessary, put the file on the desktop of every computer or a shared area on your network so kids can click and go and give them a hard copy of the URL's.
- Check the technology out before you assign it. If you're using the web, make sure the links you want to use are in working order. Be aware of any strange search returns students might encounter.
- Don't panic when something goes wrong. It's okay if you don't have the answer. Just tell kids you'll find the answer or ask your students if someone knows the answer.
- Always have a plan B ready to go just in case your technology isn't.
- When you enter the room, make a quick survey of the technology. Check computers and peripherals.
- If a machine is not working properly, please make note of it and notify the appropriate technical staff as soon as possible. It might also be useful to label the machine as out of order (or indicate what aspect is not in working order).
- Check kids' work before they print. Tell them to spell check and edit first.
- If students are working with web pages, they can copy and paste the info into a word processor in order to save on paper. Ask them to copy and paste the address as well for citation purposes. (This process also helps to teach kids multitasking.) Students can save these files to a diskette for further reference.
- Of course, you'll be circulating around the room as kids work, but it's a good idea to make one full circulation just as kids are beginning to work. Check out the machines as you're doing this first route.
- Watch the clock. If you're in a lab or working in your classroom, you'll need to start closing down about **5 to 10 minutes** before the end of the hour in order to give kids time to save their work properly. If kids are antsy about finishing, reassure them that by saving their work, they will be able to continue.

Be positive about technology use even when things go wrong. Your attitude will rub off on the students.