Social Education 65(3), pp. 144-146

WebQuest:

Using Internet Resources for Cooperative Inquiry

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As the speed, reliability, and availability of the Internet improve, teachers are beginning to reap the advantages of this vast repository of information for social studies teaching and learning. Risinger and Braun have argued that the growth of the Internet will affect the social studies more than any other subject area.[1] Teachers may at last be able to engage students in the inquiry learning that was so cumbersome before the advent of nearly instant access to digitized documents, photographs, music, art, and databases. These advantages, however, must be weighed against the potential pitfalls of the Internet as an instructional resource. The presence of inappropriate and offensive material on the Internet suggests the need for "lifeguards" as students surf into cyberspace.[2]

A WebQuest may be defined as an inquiry-oriented activity in which most or all of the information used by learners is drawn from the Internet.[3] The WebQuest approach offers access to online primary sources, a structure for evaluating those sources, and teacher supervision in identifying appropriate and relevant content. The teacher selects websites and then creates a web page that guides the students through five stages–Introduction, Task, Process, Evaluation, and Conclusion–as follows:

- **Introduction:** provides key background information and should motivate students with an intriguing question or problem.
- **Task:** describes the final product expected of the students. The final product may be as elaborate as an oral presentation using PowerPoint, or as basic as a poster depicting the students' findings.
- **Process:** gives step-by-step instructions for completing the task, as well as the list of resources needed to complete each step. Students are provided with links to Internet resources selected by the teacher, as well as a list of additional off-line sources needed to complete the task. WebQuest resources might include government or educational websites, online searchable databases, e-mail addresses of experts, and sources physically available in the classroom.
- **Evaluation:** explains how learners will be assessed on their final product.
- **Conclusion:** summarizes the main goals of the activity and encourages additional investigations on related topics.

The following is one example of a WebQuest in use by elementary students.

Create your own webquest at edweb.sdsu.edu/webquest/webquest.html

Exploring Ancient Egypt in Cyberspace

Sixth grade students at Machesney Elementary School near Rockford, Illinois, recently engaged in a WebQuest study of Ancient Egypt. After planning the structure of the activity, we used a WebQuest template to create a web page describing each stage of the project.[4] In the introduction to our WebQuest, students were told that they would be traveling back in time between 2000 and 5000 years to the land that we know as Egypt. We posed questions such as, "What do you think we will see?" "How will the people communicate with one another?" "What will their daily lives be like?" and "What kinds of scientific advances will they be working on that will still be around today?"

The task we posed for the students was to gather information about Ancient Egypt to be placed in a Time Traveler's Guidebook. Each student created a guidebook that included three entries for each of the learning stations they visited. The learning stations included (1) the Land and Time, (2) Daily Life, (3) People and Culture, (4) Arts, (5) Science and Technology, and (6) Mummies and Pyramids. Students selected the information to include in the guidebooks based on what they thought would be most important for a traveler in Ancient Egypt to know. The guidebooks consisted of pocket pages that allowed students to insert cards with drawings and descriptions of significant facts.

The process section of our WebQuest guided students through six learning stations over a two-week period. Teams of five or six students worked at a new station each day. Each learning station contained books on Ancient Egypt, research folders for students to use to store notes, index cards, and additional supplies relevant to the topic. For example, the Land and Time station consisted of a bulletin board with a timeline of Ancient Egypt on which students added key dates, events, and illustrations, and a map of Egypt to which students added physical and political features. Teams at each station also received large paper charts identifying categories of data to be gathered on the topic. For example, the chart at the Daily Life station guided students to explore topics such as family life, marriage, food/cooking, cosmetics, and clothing.

The students were divided into four teams, with three teams working at learning stations and a fourth team assigned to the six computers in the classroom. Using our WebQuest, students explored links to numerous websites on Ancient Egypt, with the goal of assisting any of the three teams around the room.

Figure 1. Rubric for Ancient Egypt WebQuest

	Beginning 1	Developed 2	Accomplished 3	Exemplary 4	Score
Content	You have fewer than 3 facts for each station and/or most of the facts included are trivial and/or inaccurate.	You have fewer than 3 facts for some of the stations and/or many of the facts included are trivial and/or inaccurate.	You have at least 3 facts from each station, but some of the facts are trivial or inaccurate.	You have included at least 3 important facts from each of the learning stations.	
Presentation	It does not appear as if you spent much effort in creating an organized or neat guidebook.	Your guidebook needs additional work on organization and/or neatness.	Your guidebook is well designed, but could be better organized and/or neater.	You have taken great care to create an attractive, well-organized, and easy-to-read guidebook.	
Mechanics	The mechanical errors in your guidebook make it virtually unreadable.	Your guidebook contains many mechanical errors.	Your guidebook contains a few minor mechanical errors.	Your guidebook is free of spelling and/or grammatical errors.	
Participation	You were rarely on-task or working cooperatively.	You had to be reminded several times to work cooperatively.	You usually worked cooperatively during the project.	You worked cooperatively throughout the project.	

WEBSITES

WebQuest Creation
The WebQuest Page
edweb.sdsu.edu/webquest/webquest.html

Primary Source Collections
Audio Archives
www.archervalerie.com/audio.html

Library of Congress
www.loc.gov

National Archives
www.nara.gov

Smithsonian Institution
www.si.edu

Ancient Egypt
The Ancient Egypt Site
www.geocities.com/amenhotep.geo/

Egyptian Ministry of Tourism
touregypt.net

Minnesota State University, Mankato – E-museum
www.anthro.mankato.msus.edu/prehistory/egypt/#

Mysteries of Egypt
www.civilization.ca/membrs/civiliz/egypt/egypte.html#menu

NOVA On-line Adventure – Pyramids
www.pbs.org/wgbh/nova/pyramid

Kid-Friendly Search Engines
Ask Jeeves for Kids
www.ajkids.com

Kids Click
sunsite.berkeley.edu/KidsClick!

Searchopolis
www.searchopolis.com

Yahooligans!
www.yahooligans.com

Team members who had trouble finding information at one of the learning stations wrote questions on index cards and brought these to a WebQuest station. Students on the computers used the links provided, as well as websites found through kid-friendly search engines, to gather information for the teams. As soon as they had located and read relevant Internet sources, they printed the information and delivered it to the station exploring the topic.

Once students completed their data collection, they selected the information they deemed to be most significant for their Time Traveler's Guidebooks. The guidebooks were presented to the class and assessed using a rubric (see Figure 1). The conclusion to our WebQuest encouraged students to continue asking questions about the past and to consider how other ancient societies compared with the Ancient Egyptians.

In Conclusion

We found the use of the WebQuest approach to inquiry valuable for a variety of reasons. First, the students were provided with a structured means for collecting data online. Rather than spending time engaged in fruitless searching, students were linked to sources they could immediately begin reading and evaluating. This also precluded the possibility that students might stumble upon inappropriate or inaccurate content.

A second advantage to the WebQuest approach as we implemented it was being able to use the Internet in a classroom with somewhat limited computer resources. Of the six computers in the room, four were at least five years old, and thus had limited speed, reliability, and power. By grouping students and using learning stations, we only needed to use two or three of the computers at a time. This arrangement also developed an atmosphere of cooperative inquiry. Students were all working together as a class to collect information on the topic, and the use of Internet resources via the WebQuest allowed small groups of students to contribute to data collection.

Several students commented that they enjoyed the opportunity to work together in small groups, and as a class, in the quest for knowledge about Ancient Egypt. In fact, some of the greatest participation came from students who typically lack motivation or who struggle with learning disabilities. The WebQuest approach to Internet-based inquiry learning appears to offer much promise for social studies teaching and learning. We encourage other teachers to include WebQuests as a resource and structure for cooperative inquiry learning.

Notes

1. For a discussion of the influence of the Internet on social studies curriculum and methods, see Joseph A. Braun, Jr., and C. Frederick Risinger, *Surfing Social Studies: The Internet Book* (Washington, D.C.: National Council for the Social Studies, 1999).
2. See Michael Berson, Ilene R. Berson, and Elizabeth Ralston, "Threshing Out the Myths and Facts of Internet Safety: A Response to 'Separating Wheat from Chaff,'" *Social Education* 63 (1999): 160-161.
3. Bernie Dodge, a professor at San Diego State University, developed the structure of the WebQuest. Dodge's WebQuest Page (edweb.sdsu.edu/webquest/webquest.html) is an expanding resource that includes guidance for creating a WebQuest, numerous samples, information regarding online discussions of the approach, and an invitation to join an e-mail group of 250 people interested in the WebQuest technique.
4. WebQuest templates are available in both IBM compatible and Macintosh formats. They may be downloaded from edweb.sdsu.edu/webquest/LessonTemplate.html.

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