

The Colonial Times: A Learning Environment for the 21st Century

by Sally Bryan

I created a WebQuest, [The Colonial Times](#), inspired by readings of Constructivists Brooks & Brooks (1993) and Eisner (1994). I wanted to show that when students take responsibility for their own learning, the learning is richer in content and deeper in concept development.

I was curious to see how this environment might encourage different learning styles and student strengths to become significant factors in learning. This was the first time our students and teachers attempted to function in such a “learning environment.” The following is an account of what we discovered.

Bernie Dodge, the creator of the WebQuest concept, defines a WebQuest as “an inquiry-oriented activity in which some or all of the information that learners interact with comes from resources on the Internet.” (Dodge, May 5, 1997). WebQuest, as an educational tool, has the potential to make several significant changes to the traditional classroom setting. First, it changes the role of the teacher from lecturer to guide. Second, it changes the role of the student from passive listener and absorber of information to active researcher and creator of knowledge. It places students in charge of finding and selecting material to be studied, of determining how the materials will be used to express their own thoughts, and it makes students, not teachers, responsible for the learning process.

The Study

Laura, a classroom Teacher, Mary, the Librarian, and I, the Technology Resource Teacher, worked together for this project. The WebQuest was correlated with a social studies unit based on Virginia’s Standards of Learning and Fairfax County School’s Program of Studies on early American history.

Laura’s class was randomly divided into two separate WebQuest groups, one that would create a colonial newspaper; the other would create a HyperStudio multimedia presentation on colonial times. Each group worked daily with me in the computer lab for four weeks. Each session was 45 minutes long. As Mary and I worked with one group to do the WebQuest, Laura continued routine classroom

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activities with the other group. Scheduling was such that both groups received traditional Social Studies lessons in the classroom each morning. At the end of the four weeks, we rotated groups.

The purpose of our study was to discover what happens when students engage in technology-based project learning activities. Qualitative data was gathered based on student and teacher interviews and daily observations that were entered into journal logs.

On the first day of our project, Laura's students excitedly asked questions. They represented half of her multiage fourth, fifth, and sixth grade students. They were a diverse group of students comprising of eight boys and four girls. Some students received special services during the school day as ESOL students (English for Speakers of Other Languages), GT students (Gifted & Talented) and some received services for learning disabilities. For example, Sonia and Paula spoke little English and Pablo arrived from Brazil days before our project began.

After introducing the WebQuest plan to the students and answering their questions, I showed them our school's Web page and taught them to navigate to the WebQuest. I pointed out various sections and told them while they might find topics of interest, they did not need to select a topic yet. Students worked in small groups to investigate the sites. They were particularly interested in the primary documents that I had included as samples of early newspapers and writings. Their fascination with the first newspaper written in America, the first Almanac and the original copy of the Declaration of Independence proved to be so significant that it influenced the entire course of our study. Pablo found the history of American flags site and played the patriotic music to everyone's delight. Students wanted to print everything they found. It was a pleasure to see their enthusiasm.

It quickly became obvious that this group had many levels of skills and ability. The ESOL students, limited in English, also had little background knowledge of American History. They needed to see what I was discussing since they had trouble understanding oral explanations. The music and colorful actions in the National Geographic CD-ROMs appeared to entice the students to watch the multimedia presentations and helped them acquire baseline historical information.

After the initial introductions, I explained our project in greater depth. Working in pairs, students would explore web sites, select topics of interest and write an article to be included in the colonial newspaper. As roving colonial reporters they were to tell the American story to the colonists. We would assume the roles of colonial citizens, express our opinions, talk about important events, and create a final product to share with classmates. The students decided that the publication date would be July 8, 1776, the date when the Pennsylvania Packet published the Declaration of Independence for the first time.

At first students expressed concern about what was expected. What did I want them to write about? Faced with having to make choices about topics and how to write their articles, they were not sure how to proceed. However, they adjusted quickly and began thinking about possibilities. The following excerpts from my research log reflect initial student reactions:

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1/6: Larry: "Do we write it like we are there? I am just the mapmaker. I am really good at drawing maps."

Anne: "Can I make an advertisement for a lady's dress? I know.... I own the shop. I can interview the people coming into my shop."

Charlie: "My great, great, great... grandfather signed the Declaration of Independence. His name was Charles Carroll... see here it is at the bottom of the Declaration."

Teacher: Let's look for a biography of him. Where else could you find out about him?

Charlie: My grandfather knows a lot about him. Maybe I could ask him? I could look in books, too?

Jonathan & Thomas: We want to study the Declaration of Independence. Look, the Declaration of Independence was signed July 4th, but this says the Pennsylvania Packet is dated July 8th. Wow, this was in the newspaper and it was probably the first time the people saw the Declaration."

The boys appeared excited about their newspaper find. We printed a copy for each to put in a folder and used ringed note cards to keep a record of web sites and other information. To direct their quests, we began each day discussing what students had learned and what they wanted to pursue. I guided students in productive directions, offering suggestions and useful tools without taking too much control of a topic. I kept the overview of the assignment in sight while encouraging students to direct their own efforts. I noted progress on a large tag board chart to help students find information relevant to another student's quest.

Students often found a topic of interest on the Internet but not details or clarification so Mary assisted them. We discovered that integrating the various resources worked well. There were times when students found what they wanted on the Internet and times when books worked better. The flexibility of using either resource was important to our success.

Douglas, a bilingual student, translated information on colonial fashion for Sonia. Anne played the role of a Williamsburg dress shop owner, and Larry and Antonio studied battles and maps, Thomas compared the Declaration of Independence with the Constitution and Peter created his own Almanac. Jonathan became a town crier and wrote about events taking place in the colonies. I wondered if the students would see the "Big Picture" as a result of these small pieces? Perhaps Jonathan's Town crier would offer an overall picture of colonial life that could tie all our topics together.

While researching, students found topics with connections to their own lives and excitedly selected topics of personal interest. The relevance encouraged them to delve deeper into their topics. For example, Thomas was excited to learn

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that the revisions to the Declaration of Independence were made on his birthday. He knew he was related to Benedict Arnold and wondered which side he was on, so he investigated that.

Rather than being told what was important either by a teacher or textbook, students made their own decisions. Perhaps their motivation was inspired by freedom of choice? Critical thinking skills were embedded in this exercise as students weighed and selected information, organized their findings and determined how findings could be used in a newspaper article or advertisement.

Students spent hours pouring over their findings, talking about what they saw, writing notes of sites to revisit and topics to remember. Although I was concerned that their topics were narrow and might not result in acquisition of information required by the curriculum, I found the students empowered because they actively chose what to learn. They even appeared to read the textbook with increased interest. The most remarkable event was the enthusiasm generated by America's first newspaper.

Then I became concerned that the research process was taking a long time and we might run over schedule. I also worried that the students weren't learning the core curriculum and if the project failed expectations, would the classroom teacher let me have the second group of students for the same length of time?

One day a distraught Thomas couldn't find the detailed information on the Internet that he wanted to support his point of view on The Declaration of Independence. My most enthusiastic student seemed to be giving up, but the next day he told me that he had decided to be a Virginia farmer who lived near Thomas Jefferson. While working in his tobacco field, Jefferson would come by in his carriage to chat about the Declaration of Independence and the threat of war it might create. What a positive change!

However, several of independent-working students showed similar moments of discouragement. Sometimes they were slow to find information or they forgot to save information. At times they found too much information and became overwhelmed and needed a new perspective to help them with their investigations. For example, Charlie could not find a biography of Charles Carroll. I suggested that he investigate Carroll's colonial community. What would he have done each day? What would he have thought about the English taxes? Could informed guesses lead to reasonable conclusions?

I learned with the students. They were individuals with different strengths and needs, but meeting those needs were difficult. Even with the assistance of a parent volunteer and librarian, my students needed more guidance than we could give. The more capable students helped each other in peer conferences and in decision-making. However, the ESOL students needed a great deal of modeling. Other students could not read information well enough to translate it into their own words. It was not the technology skills that required our time and attention. Teaching the skills of searching, selecting, interpreting, outlining, and creating appropriate information became our major focus.

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The final product was an enormous success. Once the students saw their final product they forgot about all the ups and downs. They proudly presented it to their class and enthusiastically answered questions about their contributions.

On February 1, Mary and I began working with the second group. We had learned a lot and looked forward to what we felt would be the easier of the two technology integration projects. We were in for a big surprise.

Laura observed the first two days of this project while Mary worked with the other half of her class. She too was curious about what had made her first group of students so excited. But, our first day was a disaster because other students came to the computer lab to complete keyboard lessons, distracting our students. Laura was also upset when she realized, "What was I thinking? This group is so needy... this group will really be hard."

The next day we restricted other students from the lab and our WebQuest activities were better received. We started by viewing a Hyperstudio presentation made by students the previous year. Our new group saw their friends dressed in colonial costumes and saw how the button made links, sounds, transitions and scrolled text on the cards. They were anxious to begin.

As I introduced the National Geographic CD-ROMs to the students, they listened intently as we discussed the HyperStudio project plan. We brainstormed topics of interest. One student suggested doing the causes of the American Revolution. It was decided that each student would research a famous colonial person, including women, slaves, children and Native Americans. The person's point of view about the Revolutionary War would be expressed. Using the WebQuest guidelines, the students began to research colonial people. They bookmarked sites and took notes on note cards, and left indicating they were eager to return.

During our daily group discussions we talked about point of view. Using storyboards, each student planned the sequence of the stack including a graphic and text on each card. Graphics were downloaded from the Internet, drawn by students, or imported by scanning pictures from books.

My parent-volunteer, Mary and I helped students create an image folder to save downloaded images from the Internet. However, we found that this was a needy group with many members needing one-on-one support to complete a task. Fred was upset because he couldn't find additional information on Henry Knox. Bill seemed happy looking at Native American pictures but he could not read any of the materials. Brenda liked looking at Betsy Ross pictures but could not focus on written information to take notes. Ellen searched aimlessly. I was again discouraged by the inability of students to conduct independent research on a topic of their choosing. However, Laura told me that one of her students, Brenda, was responding to our project during her morning class sessions and seemed to be absorbing information.

This group seemed less dynamic, less capable than the first, except for a few students. I wondered, "How could a classroom teacher adapt to these

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conditions?" The individual attention needed by each student was enormous. It was difficult teaching these students to peer-conference and help one other. Again, it was not the use of technology that was difficult; it was the lack of skill development in reading, writing and researching that posed roadblocks.

Using a written guide, students created introduction cards and worked on the storyboard plans for the additional cards. Some students made independent efforts to find information and to use the information to create their stack. Fred returned with information about Henry Knox. He worked at home to find what he needed. Then I realized that everyone was now showing interest in the project.

As usual, the problem was time. I felt anxious because this group could not be rushed; needing to move at their own rate and at times adult supervision to proceed. They weren't helping their peers. They lacked confidence in their own ability to make selections or decisions. They needed more opportunities to observe and practice what was being asked of them. Thank goodness for my parent volunteer. I could not have completed this project without her help. She read the materials to Brenda, translated the information and helped Brenda type information.

When the second group finished their projects they showed the same pride in their accomplishments that the first group had displayed. They also forgot their frustrations as they shared their final product with the whole class. Their teacher was thrilled with the quality of their work and with the level of excitement that seemed to permeate all their academic efforts.

Summary

As a result of this project, students learned new research skills and how to use information found in electronic media to present history in interesting ways and weak achieving students sustained interest for a longer than normal periods of time. They also found new avenues of self-expression. More accomplished students showed enthusiasm for self-directed work. And, the classroom teacher is now ready to use this model of teaching in her next unit of study.

I also learned that a change is required in our instructional program before a paradigm shift can be made from traditional acquisition of knowledge to student-centered utilization of knowledge. This change must be brought about by collaborative efforts of teachers who have a vision of new educational focus and opportunity. A technology resource teacher must plan in concert with classroom teachers to affect such change. Classroom teachers must be a part of the hands-on activities; learning and exploring as the activities evolve.

The following findings and implications will shape our future use of technology:

- Project-Based Learning environments encourage students to judge and utilize information for themselves rather than simply being taught information. However, Project-Based Learning requires development of skills that are different from those in the traditional classroom. Students must be able to read various types of resources and learn decision-making and research skills such as sorting, evaluating and selecting important information.

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- In order to meet the varying needs of individual students, metacognitive coaching and appropriate study skills needed for critical thinking, problem solving and reasoning must be modeled. Learning to use the technology is not the major problem for students; it's the problem of learning independent skills required to effectively use the opportunity technology offers.
- Teachers need the time to develop their own expertise to effectively use technology and plan with colleagues project-based activities such as WebQuests.

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