How Can Social Studies Teachers Best Use The Internet With Young Learners?

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Abstract

The most effective integration of technology for enhancing learning in social studies has been found to engage students in inquiry centered around authentic, complex, real world problems in order to develop higher order thinking and problem solving skills. These technology enhanced learning environments allow for student control over the learning activities, provide opportunities for students to think critically and analytically about information, provide a variety of information resources and tools for constructing knowledge to solve these problems, and engage students in representing and creatively applying the resultant new knowledge. While such learning experiences have been found to be very successful with older students, young children need to begin building an understanding of how to navigate in these student controlled learning environments. A good place to begin developing that understanding with primary children is to use a more structured online learning approach such as a WebQuest.

A frequently asked question regarding technology use is how to most effectively integrate computers into the teaching of social studies in order to enhance children's learning. The research literature is quite clear about what encompasses effective use of computer technologies. According to David Staley, what is needed in classrooms are technology uses that help to develop students' higher order thinking and problem solving skills by providing opportunities for them to think critically and analytically about information and represent their new understandings in multiple ways.[1] David Jonassen, Kyle Peck and Brent Wilson add that we need technology uses that engage students in inquiry centered around authentic, complex, real world problems. This inquiry should begin with students' prior background knowledge and experience, allow for student control over the learning activities, provide them with a variety of information resources and tools for constructing knowledge to solve these problems, and engage them in creatively applying the resultant new knowledge.[2]

These are admirable goals for technology integration; however, setting up a learning environment that addresses each of these goals does not necessarily guarantee success. It is imperative that children be taught the skills to work successfully in these environments beginning at the primary level. Over time and with experience, students can build up to being able to independently engage in higher level thinking and problem solving. Initially, however, a more structured type of online learning environment such as a WebQuest can provide young learners with a guided process for developing the requisite skills. There is a growing body of literature on the value of WebQuests as an instructional approach for integrating structured inquiry and the use of technology.

What are WebQuests?

A WebQuest is an inquiry-oriented activity in which most or all of the information used by learners is drawn from the Web. WebQuests are designed to efficiently use learners' time, to focus on using information rather than looking for it, and to support learners' thinking at the levels of analysis, synthesis and evaluation.[3] Through a WebQuest, students can actively explore issues and problems from a number of different perspectives in a guided and meaningful manner, as well as search for solutions and make moral and ethical decisions about real world contemporary problems. In an authentic WebQuest there is no single correct answer. While engaged in inquiry using a WebQuest, students are constructing their own personal meaning about the problem under investigation. The thinking skills associated with WebQuests include comparing, classifying, inducing, deducing, analyzing, constructing, abstracting, and analyzing perspectives.[4]

WebQuests can also enhance students' communication skills as many involve working in co-operative groups and role-playing. Some WebQuests have the students take on roles that help to make the group work together more efficiently and effectively. These roles might be group leader, recorder, communicator, encourager and evaluator, among others. The most authentic WebQuests also engage students in perspective taking on a particular problem or issue. The goal is for students to use the information collected to construct an argument based on evidence. They then publicly share their findings with the class and the class tries to come to some kind of resolution to the problem under investigation. Role-playing can be particularly beneficial for teaching students the importance of perspective taking when problem solving.

The first part of a WebQuest, the **Introduction**, lays out the task or the problem to be investigated, provides some background information and acts as a motivator to get the students interested in the activity. The **Task** outlines the overall challenge the students will be engaged in and explains what they will be doing to represent what they have learned at the completion of the WebQuest. The **Task** also usually provides the focus questions that frame the investigation and facilitate the learning process. The **Process** provides a description of what needs to be done in order to accomplish the task in a step-by-step fashion. Here, students are usually assigned roles or provided with differing perspectives on the issue or problem being investigated. The **Resource** section provides information sources that are needed for solving the task. Most of the resources used for the inquiry are other websites that have been vetted by the teacher and linked directly to the WebQuest. Many WebQuests provide direct access to individual experts, current news sites and searchable databases for information sources. The **Evaluation** section provides information for students on how they will be assessed on their work while engaged in the WebQuest. The **Conclusion** brings closure to the WebQuest by reviewing and summarizing the learning from the experience and often challenges learners to extend their learning in new ways.

For young learners, the average WebQuest is designed to take one to three classes to complete. Throughout the WebQuest, the teacher acts as the facilitator checking to see that students understand the process and the role they are to take and that they stay on task.

Where do I find WebQuests?

There are numerous collections of predesigned WebQuests available on line that are organized by grade level and subject area which makes it easy for a teacher to locate an age and topic appropriate site. [See http://webquest.sdsu.edu/ or http://www.kn.pacbell.com/wired/bluewebn/]. The following three examples found in various online databases are all designed for young children to address the theme of life on a farm that could be used as part of a unit on Communities in social studies. The first one called "With an Oink Oink Here" [http://curry.edschool.virginia.edu/go/edis771/98webquests/student/samandamiller/Curricular_WebQuest.htm], presents the children with the following problem: "You have just inherited a farm! You want to raise three types of animals on your new farm. You have 2 barns, one lake, and one field on your land. What animals are you going to raise?" The children are challenged to use the web resources provided to come up with a solution that they present to their class.

A second WebQuest called "Farmer Brown's Backwards Farm" [http://curry.edschool.virginia.edu/go/edis771/98webquests/student/srobertafitzgerald/farm_animal_webquest.htm] presents the following problem:

> "Farmer Brown doesn't know how to run a farm. All of his animals live in the

wrong places, eat all the wrong foods and have to do the wrong jobs. The animals are really getting tired of doing things backwards. One day while Farmer Brown was sleeping, the animals escaped and ran to the nearby zoo where they got all mixed up with the animals there. No one is sure who belongs where. We really need your help to get all the farm animals back where they belong."

In a third example called "Farmers, Farmers Everywhere" [http://projects.edtech.sandi.net/hawthorne/farm], the children are told that they have been selected to become a farmer and to better understand their job they will need to investigate these questions:

- What kind of farmer would you like to be?
- What does it take to be farmer?
- What would your farm look like?
- How could you encourage others to become farmers?

Using the findings from their investigation into these questions, they are to prepare a commercial about the type of farming they would choose and why.

Teachers can also design WebQuests to meet their own personal needs which allows for more active student involvement in deciding what problem they might like to investigate. Numerous templates are available to help teachers in their construction of their own WebQuests [For examples see http://webquest.sdsu.edu/LessonTemplate.html or http://www.ozline.com/templates/webquest.html].

Once children have some experience with using WebQuests, they too can be encouraged to try developing their own WebQuests and sharing them with classmates. A database of sample student developed WebQuests can be found at the ThinkQuest Library site [http://www.thinkquest.org]. Having students create their own WebQuests challenges them to explore a topic, summarize what the most important events or facts are in relation to the topic, and then put together the links and questions or other students to follow.[5] When students engage in creating their own WebQuests, it can also enhance the development of their critical, creative and higher level thinking skills. The two websites noted in the previous paragraph also provide templates that students can use for designing their WebQuests.

How do I decide if a WebQuest is a good one?

The WebQuest approach is intended to capitalize on the possibilities provided by the Internet for guided inquiry learning while eliminating some of the disadvantages such as time wasted looking for resources, accessing inappropriate resources and lack of sufficient experience with the research process.[6] However, there are some drawbacks to using WebQuests that teachers need to be aware of. For example, many WebQuests are merely designed as fact-finding exercises that do little to engage students in problem solving. No attempt is made to engage students in role taking or learning to view problems from multiple perspectives. Fewer still actually engage students in learning the important problem solving skills of conflict resolution, compromising or agreeing to disagree. Others lack clear direction to the user that can detract from the ability of students to take control of the learning experience.

Teachers need to carefully examine any WebQuests that they plan to use with their classes in order to ensure that their students are going to be engaged in an authentic learning experience. There are rubrics available online that can be used for determining the quality of WebQuests. [See for example, http://www.ozline.com/webquests/rubric.html, http://bestwebquests.com/bwq/matrix.asp, http://webquest.sdsu.edu/webquestrubric.html or http://www.todaysteacher.com/WebQuestIntroduction/assessing_webquests.htm]. Some of the criteria for determining the effectiveness of a WebQuest include:

- engaging opener,

- clear question and task,
- roles provided that match the issue/problem being investigated and the resources provided,
- higher level thinking required,
- opportunities for feedback built in, and
- conclusion allows for demonstration of students' learning, suggests how this learning could apply to other situations, and offers suggestions for further learning.

Another caution for teachers is to be aware of is that when using predesigned WebQuests students are generally removed from the process of selecting resources on which to base their investigation. This can be an advantage initially for working with young children in order to ensure some level of control by the teacher over the appropriateness of the sites being accessed. However, as current information becomes easily accessible online, it is increasingly important that students have the opportunity to develop their own critical analysis capabilities.[7] As well, teachers should not simply rely solely on Internet filtering software as there are always inappropriate sites that slip through the cracks. It is a better idea to start with young children to teach critical viewing skills so that they can learn to make informed decisions and judgments about the information they encounter on the Internet.[8] Children need to be instructed in and have opportunities to practice how to critically examine and make appropriate, ethical and informed choices about the information they are accessing. They need to be taught to recognize that the information on any website represents a particular viewpoint and that it is important to examine several points of view on any issue. They also need to be taught how to distinguish fact from opinion.

The Media Awareness Network [http://www.media-awareness.ca/] is one resource that can assist teachers in developing students' critical viewing skills. Under the Games section there are activities such "Privacy Playground: The First Adventure of the Three Little CyberPigs" where young children (ages 7-9) can learn about protecting their privacy on the Internet and "CyberSense and Nonsense: The Second Adventure of the Three CyberPigs" where children ages 9-11 can learn to distinguish between fact and fiction, and to detect bias and stereotyping in online content.

Another thing to keep in mind is that the purpose of WebQuests is to lead students through a structured and scaffolded inquiry experience that specifies the task, the roles and perspectives to be taken, the resources to be used and the guides for organizing the learning, with little opportunity for the students to set the direction and plan for the investigation. While these initial scaffolds are very important for helping young children to develop problem solving strategies, there eventually needs to be opportunities for releasing some of the control into the hands of the learners. As children's experience with more structured WebQuests increases, teachers can begin to release some of the control over the inquiry to students. Philip Molebash suggests "fading" the support of the WebQuest by gradually allowing more flexibility in how and what student are to produce in the task, by gradually providing fewer URLs and expecting the learner to find more, by gradually moving the scaffolding of note taking, information organizing, writing prompts, etc. from required to implicit, and by putting more resources in the conclusion for learners to explore on their own later.[9]

Concluding Remarks

The most effective technology uses for enhancing learning are those that help to develop students' higher order thinking and problem solving skills through engagement in inquiry centered around authentic, complex, real world problems. However, young learners need to develop the knowledge, skills and attitudes that help them to be successful in these inquiry environments. Beginning in the primary grades with web-based learning strategies like WebQuests can help young children to develop these requisite skills in a structured, scaffolded fashion. With experience, the amount of structure can be faded so that students become more confident and independent inquirers who are able to learn more effectively with the support of computer technologies.

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