Reasons for Using Webquests in Health Education

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A Webquest is a structured, inquiry-based activity that asks young people to use the Internet to learn about an issue and to apply that new knowledge to develop new skills or attitudes/beliefs, influence others, and enhance their own environments or future orientation. A short-term Webquest (1–2 hours) can be used by individual students in preparation for or as a follow-up to a class discussion or lecture/presentation. A medium-term Webquest (a couple of class periods) can help a group of learners grapple with new information and transform it into new knowledge, attitudes, and beliefs. A long–term Webquest (between a week and a month project) involves a group of students in creating something that others can respond to, such as a class or school activity, peer leadership, changes in their immediate social and physical environments, or the development of action plans to address a selected health or social problem relevant to the learners.

High-quality Webquests are age and ability appropriate, interactive, have a "hook" that appeals to youth, involve teamwork and collaboration, relate directly to curriculum goals and specific learning outcomes, include web sites that have interesting features such as quizzes or self-tests, animations, simulations, role plays, and working with real-life data or current research. Effective Webquests include well-designed evaluation criteria or rubrics, including self-tests and structured teacher assessments.

Webquests go beyond simply accessing and understanding good health information. Webquests can engage children and youth in online learning of health-related skills, attitudes, beliefs, and knowledge. They can help young people develop new behavioral intentions and personal health action plans. Webquests can show young people how to access or provide social support from/to friends, parents, and trusted adults, and where and how to access preventive health or emergency treatment services. Webquests can include online activities such as online youth advocacy and community service learning activities (see Appendix for a list of web-based documents and examples of Webquests).

Rationale

1. Young people are online

The Internet is a tool that is used often by youth in Canada and other countries. According to a Canadian survey of parents (Media Awareness/Environics 2000), 90% of young people in Canada accessed the Internet last year. A case study of Toronto street youth found that 70-75% of these troubled youth accessed the Internet regularly (TeenNet, nd). Almost half (42%) of Canadian youth report they use the Internet at least once a day and 28% report they use the Internet once or twice a week (Media Awareness/Environics, 2001).

2. Young people use the Web mostly for schoolwork

Like adults, youth use the Internet primarily for their work, which in the case of young people is schoolwork. Various studies show that between one-half and nine-tenths of youth use the Internet for homework (Roper Youth Report, 1998; Media Awareness Network/Environics, 2000, Angus-Reid, 2000; NPD, 1999). A survey of students (Media Awareness/Environics,

2001) found that 63% reported that they use the Web for homework, including 32% that said they used it almost every day for schoolwork. Young people also report high frequency usage of the Internet for e-mail with friends, chatlines, games and entertainment, downloading music, and online "window shopping" for consumer items.

3. Young people do not often look for health information on their own

Recent research reviews (Shannon & McCall, 2001; Borzekowski & Rickert, 20001a) have not found any large-scale studies that report on how often youth seek health information on the Internet. Traditional surveys are just now including the Internet as a component of questions relating to sources of health information such as the media, friends and parents. Small-scale case studies indicate that all youth are able to access the Internet and are capable of locating health information (Borzekowski & Richert (2001a; 2001b; Smith et al, 2000). This includes youth in elite schools, universities, middle class schools, youth who use drop-in health centres, and street youth.

A survey of Canadian youth (Media Awareness/Environics, 2001) found that 2% of youth look for health (illness/disease) information at least once a day, 5% look for health (illness/disease) information once or twice a week, and 13% look for health (illness/disease) information once or twice a month. Similarly, low percentages of youth look for information about their bodies (general health and well-being; 2%, 4% and 7% respectively) and about relationships (with parents or friends; 2%, 4% and 19% respectively).

4. Schools are good places to initiate youth use of health information

Ninety per cent (90%) of Canadian schools are connected to the Internet (Statistics Canada, 1999) and high-speed connections will be widespread in the next two years. Canadian studies (Statistics Canada, 1999), as well as reports from other countries (Becker, 1999; Net Day, 2001)), show that students are often directed by their teachers to do web searches, participate in simulations and games, and perform drill and tutorial activities online. Science, geography, and computer science teachers are now using Webquests as student research projects in their courses. These Webquests require students to visit selected websites, gather information, or participate in interactive simulations or data collection, and then prepare reports or organize activities.

5. Earlier research shows that computer-assisted learning can promote health

Earlier research on computer-assisted instruction clearly shows that the computer can help young people acquire health-related skills, knowledge, and attitudes/beliefs. This project suggests that the opportunity presented by school-related Internet assignments (Webquests) can be used to encourage Canadian youth to access high quality health information and learning via computers linked to selected websites.

6. Webquests are based on new knowledge about learning

Another important change in education is also being driven by new information technologies. More and more often, students and teachers are being asked to undertake interdisciplinary, project-based learning that encourages students to use a constructivist approach. This places

more emphasis on the process of learning and less on the memorization or understanding of a large body of knowledge.

New research on how children learn has underlined the fact that students "construct" meaning from information and knowledge (thereby truly learning) if they are able to inquire, explore, summarize, and present their new knowledge (VanFossen, 1998). The effectiveness of this constructivist learning approach is well documented in the education research literature and has led to calls for inquiry-based, problem-based, active, and cooperative teaching and learning practices.

In the past, this approach was used by teachers through student research projects where students worked in teams and used the library and other real-life sources to prepare project reports and to make presentations to their classes. Many teachers are now beginning to use the Internet for this purpose through well-designed Webquests.

7. Webquests are used to teach other subjects and skills

The value of Webquests lies in students being able to visit existing, fascinating websites where they can work with current real-life data, answer quizzes, view photos, videos, participate in interactive simulations, and engage in discussions with experts or other students. Furthermore, they can retrieve information from a variety of sources quickly and easily. Webquests have been an effective means to use the Internet (Haury & Milbourne, 1999; Dodge, 1997, VanFossen, 1998) in active, inquiry-based learning, and they are being used extensively in science and social studies programs.

8. Teachers will use Webquests if they are readily available and directly related to curriculum

Becker (1999) found that 28% of teachers directed their students to do Internet–based research projects. Once there was a modem link to the classroom, over half of the teachers used the Internet in this way. However, other studies (Net Day, 2001; Macavinta, 1999; Becker, 1999) found that teachers did not have the time to locate good materials on the Internet and were hesitant to use the materials if they were not directly tied to stipulated learning outcomes. Becker (1999) noted that when teachers did use the Internet, they were most often looking for classroom materials and lesson ideas.

9. There is potential for cooperation with other teachers

High-quality Webquests can be multi-disciplinary in nature and can therefore engage teachers from a variety of subject disciplines in working together. This enhances student learning and makes project work both more efficient and more meaningful.

10. Webquests are cost-effective and easy to use

There are few expensive production costs associated with the development of Webquests. The web-based resources already exist and the sponsors of the sites would welcome their use in such quests. There are minimal costs associated with their development and they require only the maintenance of a set of relatively simple webpages on a server.

Appendix: References and Research Sites

Dodge B (nd) Some Thoughts About WebQuests,
http://edweb.sdsu.edu/courses/edtec596/about_webquests.html

Dodge B (199Five Rules for Writing a Great WebQuest, Learning and Leading with Technology, Vol 28 (8) http://www.iste.org/L&L/archive/vol28/no8/index.html

Brown Yoder, M (1999) The Student WebQuest. Learning and Leading with Technology, 126 (7), April International Society for Technology in Education
http://www.iste.org/L&L/archive/vol26/no7/features/yoder/index.html

Disney Learning Partnership – Online training What are Web Quests
http://www.thirteen.org/wnetschool/concept2class/month8/index.html

VanFossen, Phillip J.(1998) World Wide Web Resources for Teaching and Learning Economics. ERIC Digest. Bloomington, IN, ERIC Clearinghouse for Social Studies/Social Science Education
http://www.ed.gov/databases/ERIC_Digests/ed424189.html

Haury, David L. - Milbourne, Linda A. (1999) Using the Internet To Enrich Science Teaching and Learning. ERIC Digest. Columbus OH., ERIC Clearinghouse for Science Mathematics and Environmental Education http://www.ed.gov/databases/ERIC_Digests/ed433218.html

McGonigle, Dee; Mastrian, Kathleen (1998) Learning along the Way: Cyberspacial Quests.Nursing Outlook, v46 n2 p81-86 Mar-Apr http://ericae.net/ericdc/EJ563593.htm

Webquest 101 – Putting Discovery into the Curriculum
http://www.teachersfirst.com/summer/webquest/quest-b.shtml

Building Skills in Web Quests
http://www.kiko.com/wqst/buildskills.jsp

Examples

Matrix of Examples, The WebQuest Page http://edweb.sdsu.edu/webquest/matrix.html

WebQuests By UPEI Education Students
http://www.upei.ca/~fac_ed/webquests/index.html

WebQuests, ThinkQuests, Tracks & Other Online Assignments Matching Ontario Curriculum Units
http://www.odyssey.on.ca/~elaine.coxon/Teaching/webquests.htm

WebQuest Webography – Yukon Department of Education
http://www.yesnet.yk.ca/staffroom/webquest.html

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