Web Evaluation I

Background information

The Global Change course at Iowa State University, Ames Iowa USA, is a senior-level undergraduate course in Environmental Science that seeks to provide students, particularly those from environmental science, agriculture, and engineering, with a global perspective on environmental problems. The course emphasizes the science elements of global environmental change but also engages students in discussion on the societal, ethical, and political implications of these changes.

The GC class of about 50 on-campus students who, by university tradition, meet 3 times per week (1100 to 1150 on Monday, Wednesday, and Friday) for 15 weeks beginning in mid January. One learning unit topic is covered during each class meeting. On the basis of student recommendations after the 1999 course, class meetings have been reduced from 3 per week to 1 per week (only Wednesday from 1100 to 1150) after the initial 2 weeks of the semester. Three unit topics, rather than one, were discussed when class meetings were reduced to one per week.

The web-based activities designed for students in the ICT and Learning course will focus on the on-campus students.

Use of quizzes to facilitate learning

A pedagogical feature widely used in the US tradition, although generally considered to have little if any learning value by Danish tradition, is the quiz. Students in GC are asked to read the learning unit and take a quiz consisting of 3 multiple choice questions before coming to the class meeting and before engaging in the online dialog. The quiz questions are designed to require the students to do more than simply search for a fact. Ideally, the question will require the student to make an interpretation of material presented, perform a calculation that reveals a new concept beyond the information provided, compare information in the present unit with material from past units, etc. In short, the questions require the student to engage critical thinking skills in order to arrive at the correct answer. Of course, it is not always easy to design good questions that engage all students in such critical thinking processes.

Collaborative learning activities

In the 2001 offering of the course, students were divided into groups (arbitrarily by the instructor) of 4 to 5 students each. Each group was assigned an online group portfolio in which they could engage in private discussion. For each learning unit, one group was assigned (by the instructor) to summarize, from the students' perspective, the important

points of the topic as gleaned from online reading material, online discussion among all members of the class, and discussion on this topic in the face-to-face class meetings. Each group was expected to meet (either face-to-face or online) and construct a summary document that would subsequently be posted on the web for that particular unit. They could divide the responsibility for completing this task in any way they chose.

This activity was judged by the students to be a disaster! Most groups had one or more students who failed to participate, leaving one or two students to do all the work. Those groups that had full participation produced documents that more-or-less copied large segments verbatim from the online reading or dialog with almost no evidence of the use of critical thinking skills. Evidently, this activity was poorly designed and led to little or no collaboration and little or no learning. What went wrong?!

Tasks for the Danish students

It would be very nice, if we all during our collaboration could become a bit acquainted with each other (and put some faces on each other) on both side of the Atlantic. Therefore, Elsebeth and I will ask you, as an initial action when you "inhabit" your portfolio, to insert a photo and some biographical information on yourself in the portfolio feature, which is designed for this purpose. You will find a hot link with your name in the upper left corner of your portfolio http://www.meteor.iastate.edu/jportfolio/aalborg/index.jsp. Press the link, and you will have access to insert your biographical information and photo - as well as continuously adjust it.

You are asked to play the role of an on-campus Global Change student and evaluate the usefulness of some of the web-based features of this course. More specifically, you are asked to complete the following tasks:

Web Evaluation I, part 1:

1. Access the Global Change Homepage and the list of learning units to see how the course is divided into three 5-week Blocks.
2. Access the Overview Learning Unit (1-1) to observe the general structure for each learning unit.
3. Access the unit on Evolution of the Atmosphere (Unit 1-2) and read the assigned material given under Summary Information. Take the quiz associated with this learning unit.
4. Access the discussion pages in your portfolio and post (as a reply to the thread "Web Evaluation I - Part 1" your views and opinions of the usefulness of on-line quizzes for enhancing learning.
5. Read the comments posted by other Danish students and post one comment or more on opinions and suggestions of another student.

Web Evaluation I, part 2:

1. Access your group portfolio and carry out the following task:
2. Consider the failed group activity of the Global Change course (i.e. "the collaborative learning activity"), as described above.
3. Consider the design of the activity and discuss between you (in your group forum in the virtual portfolio) the potential causes in terms of its pedagogical and technological design aspects
4. Come up with the specifications (about 350 words) for a group activity - for YOUR OWN m1k4:CaseUSA course - which you anticipate will enhance collaboration and knowledge building, and add quality to YOUR OWN learning process in m1k4
5. Present your design as a plenum posting (denoting, in the title, the number of your group) in the Web Evaluation I, part 2 thread in our shared dialogue space in this portfolio.
6. NOTE: The number of the group you belong to will be listed in the message of the day (MOTD) in the portfolio. You will see this message first thing when you log into your portfolio.

Aalborg University and Iowa State University