

Chapter 36 Student Focus Groups November, 2001

Two groups, each with four students, went through the two activities on Chapter 36 and made comments. As each comment was made, we discussed what improvements or changes might make it better. It took a little over two hours to go through the two activities.

It should be noted that the *time spent survey* showed that the percentage of participant student reading levels ranged widely among the participants. Responses to date reveal that 21% of the students read below grade level. Other students may not be too far above that. In many schools the reading level for 9th grade “regular level” biology is overall generally low due to the fact the college bound students are tracked out to AP, advanced, or honors classes.

36.1

The students consistently wanted to get to the action first. They will scroll down and click. This behavior has been documented in the large classrooms also. (See Year 1 field observation reports).

- You are not going to stop the clicking first syndrome.

The students didn't like going back and forth to complete activities.

- Reduce the number of abiotic factors?
- Put the questions on the tail end of the results not so that they have to go back and forth to finish a section.
- The directions were not clear as to what they were to do. It was not a problem of them not understanding or the directions not being there, they just skipped over them to do the clicking. When they realized they were lost, they became annoyed. In this chapter they are asked to put answers in a lab book and also answer questions on line. Reference to the workbook disappears and confused the students.

36.3

Conceptual hurdles - The world map is difficult for the students. Geography is one of the weakest taught.

- World map - can this be changed with a USA map?
- Do students know what the Sahara is? This group had a hard time. Change to Sahara Desert?
- Amazon rain forest may be too common. Kids already think they know everything about it so they don't really pay attention. What about using a temperate rainforest?
- This activity actually has way too little information The students would have been happy to have more to read here.
- Cells are too small for kids sharing a computer to see. Students sharing a computer are sitting about a foot or more further away from the screen than if they were one-on-one with the computer.

- It is not practical for the developers to make every diagram large, however a possible solution is to make a large diagram of one cells.
- Small diagrams translate to something that is difficult. Big diagrams translate as it is easy. A large diagram of one cell may do the trick.

Suggestions

- Click first, read second
- Make the activities flow in one path. Clicking back and forth is very distracting. This is a change from what I was during classroom observations. However the other group tested after I did these concurred that they did not like going back and forth.
- Shorten the activities not by reducing content or activities, but by easier navigation and eliminating extra reading.
- Put the action first.
- Start with **questions** rather than goal statements. When I was met with Don at the NABT Conference, he also indicated that students like the questions. Teachers like the goal statements. He showed me a competitors' textbook that put in a goal statement for the teacher but highlighted the questions. This made both teacher and students happy. See examples in Figures 1 and 2 below.
- Be consistent and clear what students are to do when they are to do it. Establish a pattern about how students are to do activities. Do they log information in a workbook? Do they answer questions on line? Keep it simple and direct. They will do anything - they just need to know what to do.

Figure 1. Example of using goal statement and questions on Webpage.

The biosphere is the global ecosystem.

How do abiotic factors affect organisms?

Move your curser over each organism. What are the requirements for each animal or plant to live in a forest in Pennsylvania?

Now, click on one of the Abiotic Factor buttons to study the effects of a drastic increase or decrease in sunlight, water, or temperature.


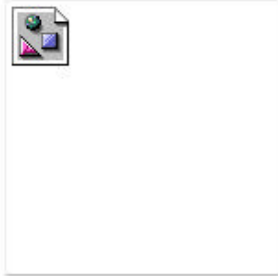


Figure 2. Example of using goal statement and questions on Webpage.

Climate determines global patterns in the biosphere.

Why are some areas wet and others dry?

Heat and moisture are distributed over the Earth's surface by vertical air currents that form "circulation cells" at different latitudes. These circulation cells lead to different climates and patterns of vegetation in our biosphere.



When cool dry air meets warm moist air it creates rain.

View the animation below. Where is warm, moist air? Where is cool dry air?