7C. The Student Assessment of Learning Gains (SALG)

This assessment was conducted at the end of the semester in both spring 2003 and spring 2004. There were 20 students in each course, and 37 students completed the survey.

These questions are reported here, and the instructors have data for others as well that relate to the course management and learning outcomes.

How much has this class added to your skills in:
7C1. Thinking about complex issues that involve both people and chemical issues?

7C2. Reading technical information about uranium mining, radioactivity, environmental regulations, etc.

To what extent did you make gains in any of the following as a result of what you did in this class?
7C3. Understanding the difficulties/complexities of miner compensation after the fact?

7C4. Understanding the difficulties/complexities of setting health standards for radioactive exposure?

7C5. Understanding the difficulties/complexities of environmental cleanup from uranium mining?

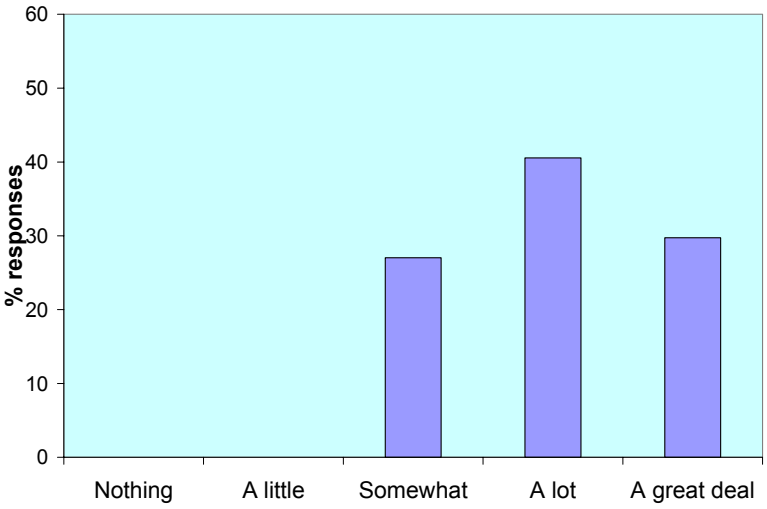
7C6. Feeling comfortable with complex ideas.

7C7. Gaining interest in topics studied in the course.

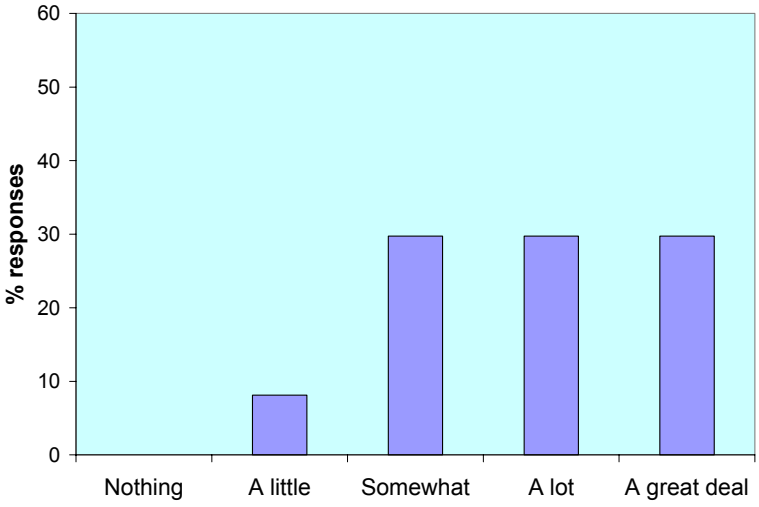
How much did each of the following aspects of the class help your learning?
7C8. The way the class was taught overall.

Written comments
7C9. Comments from students

How much has this class added to your skills in
7C1. Thinking about complex issues that involve both people and chemical issues?

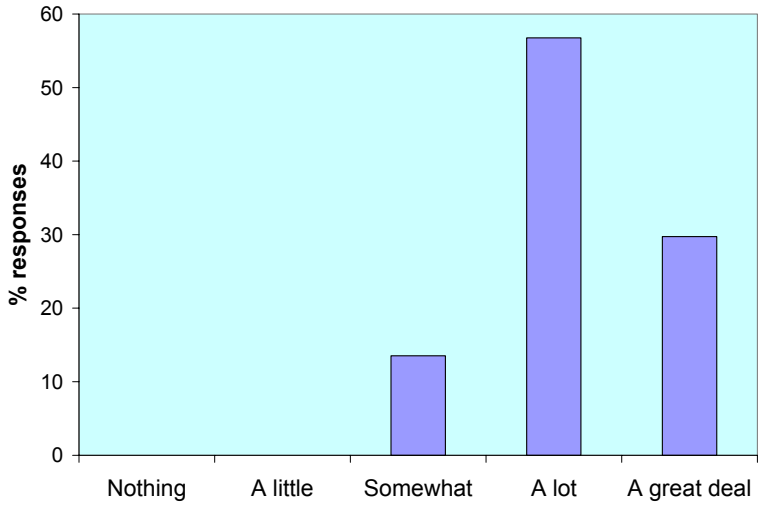


7C2. Reading technical information about uranium mining, radioactivity, environmental regulations, etc.

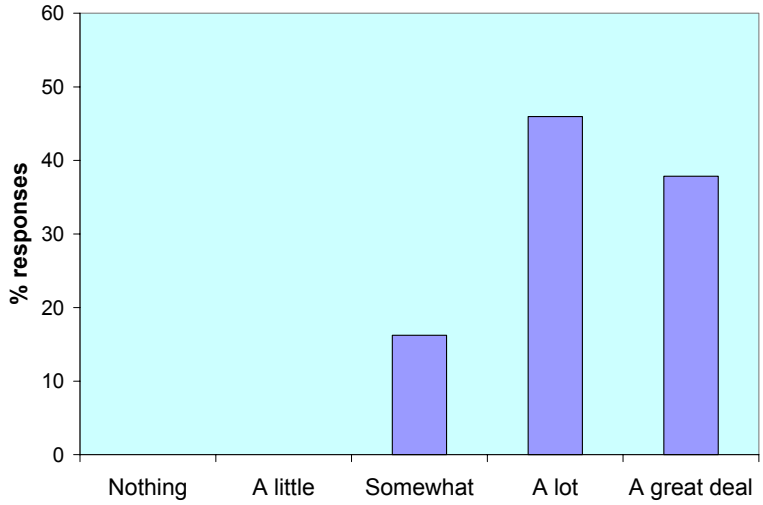


To what extent did you make gains in any of the following as a result of what you did in this class?

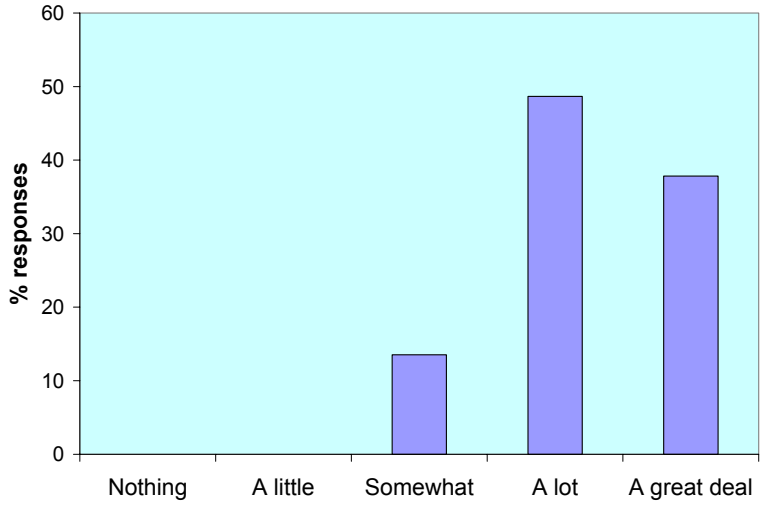
7C3. Understanding the difficulties/complexities of miner compensation after the fact?



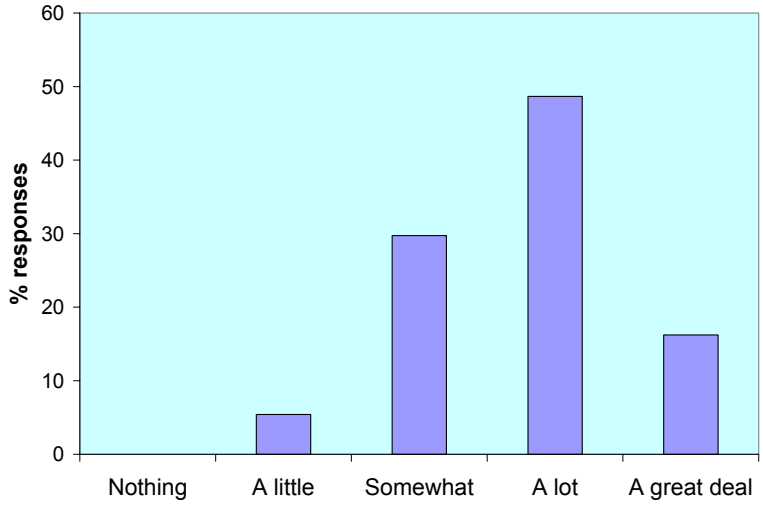
7C4. Understanding the difficulties/complexities of setting health standards for radioactive exposure?



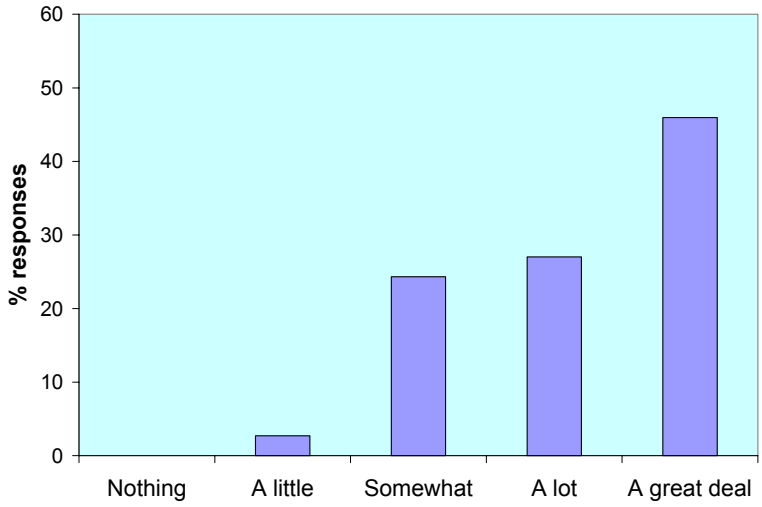
7C5. Understanding the difficulties/complexities of environmental cleanup from uranium mining?



7C6. Feeling comfortable with complex ideas.

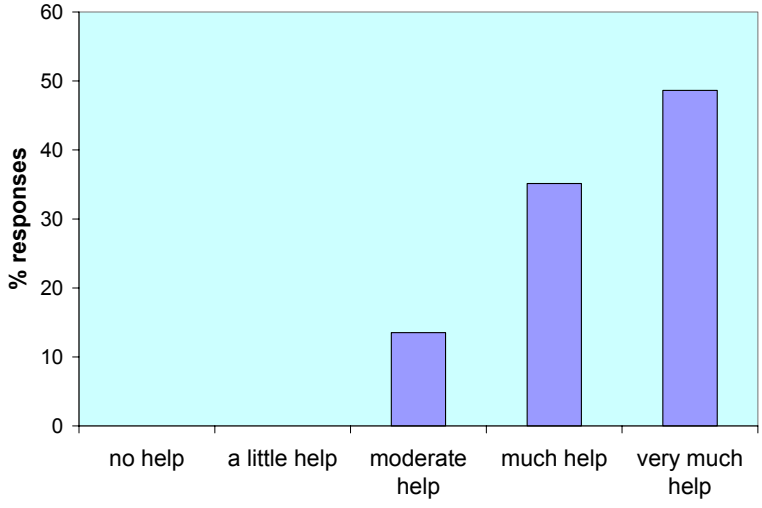


7C7. Gaining interest in topics studied in the course.



How much did each of the following aspects of the class help your learning?

7C8. The way the class was taught overall.



7C9. SALG Written Comments from Students

Both in 2003 and 2004, students added written comments to the SALG and/or submitted comments on the written chemistry department instructor evaluation. We have excerpted the ones that relate to chemistry, culture and the student opinions as to how science should be taught.

NOTE: Not included are those that relate to course processes (such as lectures, text, quizzes, etc). Students gave us very helpful comments the first year of the course that enabled us to improve it greatly the second.

"I liked telling other people about this class, because everyone's reaction was "How can Uranium and American Indians possibly be related?" and I was able to inform them about the mining period and its effects. I think this is a topic that few have been alerted to, and everyone I talked to about it was very interested."

"Overall, the class was excellent. I felt like I learned a great deal, especially about radiation. I've taken many chemistry classes in my undergrad as a chemical engineering major, but the one chemistry area that I never had exposure to was radiation. So, this class really had an impact on me, especially because I had such a curiosity in radiation previously."

"… I think that this is a good example of how classes should be taught so that students permanently retain the information and you can test their knowledge appropriately. Good job at being great teachers!"

"I am so lucky to have been admitted into this course... I grabbed one of the coveted spots! Yea for me! I thoroughly enjoyed the intimacy of the class, the subject matter, the instructors, guest lecturers, and peer presentations. It was an untraditional class, which made it especially fun and interesting. Thank you for the opportunity to learn the dramatic effects chemistry can have on people. I would certainly recommend this course to others!"

"I really enjoyed this class. When registering for classes, Chem 201 caught my attention because it was a science class but at the same time I learned about the Navajo and their struggle for miner compensation due to radiation exposure in the mines. It was the perfect combination of culture and how science impacts it."

"Great class. Very interesting. Finally nice to have an ethnic [studies] class in the sciences."

"This was a great course for science majors because it made great connections between chemistry and the social world. I hope that others get to experience this class it was a good eye opener. I learned a lot about the Navajo that I am sure I would have never known without taking this class. Thanks you."

"This was by far my favorite course this semester, and most likely my favorite course at the university so far. I looked forward to attending class each day."

"Finally, an interesting ethnic studies class that actually will carry benefits after the course is over."

"I am about to graduate and at this point I feel that this has been the best course of my undergraduate education. It's one of the few classes that I look forward to each week. It's the only one at this point that in my mind doesn't involve busy work or jumping through hoops. All of the assignments are geared towards enlightening our perspective rather than serving as a way to weed out or differentiate among students"

"I spend a lot of time in the chemistry building, and I needed to see society work its way into this building. I think that the most important part of learning chemistry is learning why it matters to people."