

Survey for Exploring Radioactive Decay

CHM 102

Fall 2007

n = 13 students

Please answer the following questions honestly when considering the Exploring Radioactive Decay Excel and activity that you have used for this assignment. Select your answers by (1) clicking on the boxes if responding on a computer and then print (or save and attach to an email - ssinex@pgcc.edu) or (2) print and mark an x with a pen if on paper.

How long did it take you to work through the activity (all 14 pages)? **5.3 hours (mean)**

Consider the ease of use of the interactive spreadsheet for each tab in this Excel as you went through the activity. Check one choice in a column for each tab:

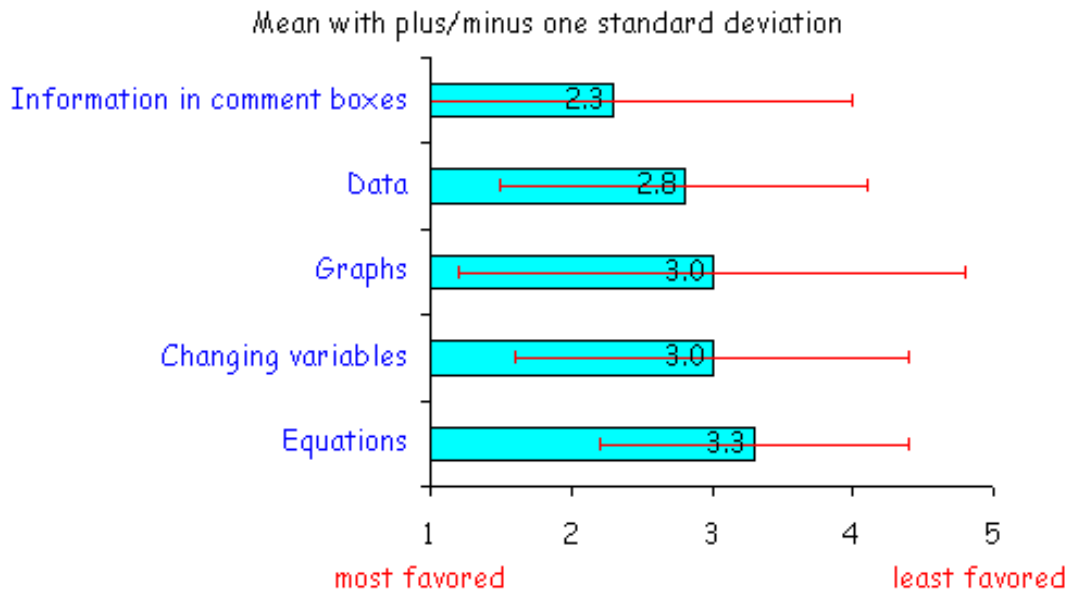
	decay	daughter	unstable daughter	total rad	counting error	background	safe
real easy 5				1	1		3
easy 4	5	7	5	2	1	2	1
so, so 3	2	3	4	4	3	5	1
difficult 2	2		1	3	4	1	1
real difficult 1	4	3	3	3	3	4	3
don't know	1				1	1	4
rating	2.8	3.1	2.8	2.6	2.4	2.4	3.0

Ease of overall use of the interactive Excel Spreadsheet: **2.9**

real difficult difficult so, so easy real easy
 1 3 4 4

What was the most valuable part of the activity? Rank these items. Place the number in the box next to the items given below: 1 - most favored ... 5 - least favored

Mean	σ	
3.0	1.4	Changing variables
2.8	1.3	Data
3.3	1.1	Equations
3.0	1.8	Graphs
2.3	1.7	Information in comment boxes



Any comments especially about your #1 ranked item?

All comments are typed verbatim including spelling!!!!

Graphs

- >I think that visual aids are important
- >This exercise was rather difficult to comprehend initial, but by the end I had a pretty good understanding. The graph help my comprehension the most.
- >Like to deal with graphs calculation.

Changing Variables

- >I like the ability to change the variable back and forth.

Information in comment boxes

- >It almost helped me understand.
- >Let me know more information that helped me.

The counting error information was not covered in class. You had to learn this material on your own. Learning this was

2.1

- | | | | | |
|---|------------------------------------|---------------------------------|-------------------------------|------------------------------------|
| <input type="checkbox"/> real difficult | <input type="checkbox"/> difficult | <input type="checkbox"/> so, so | <input type="checkbox"/> easy | <input type="checkbox"/> real easy |
| 5 | 2 | 4 | 1 | |

The background information was not covered in class. You had to learn this material on your own. Learning this was

2.4

- | | | | | |
|---|------------------------------------|---------------------------------|-------------------------------|------------------------------------|
| <input type="checkbox"/> real difficult | <input type="checkbox"/> difficult | <input type="checkbox"/> so, so | <input type="checkbox"/> easy | <input type="checkbox"/> real easy |
| 3 | 3 | 3 | 2 | |

Do you think that this activity helped you understand the concepts involved with radioactive decay?

Yes
7 (58%)

No
3 (25%)

Maybe
2 (17%)

Why? All comments are typed verbatim including spelling!!!!

Yes

- Because I got to see the graphs and change numbers to see results.
- Yes, because it makes me know about different sources of radiation and the importance of half life duration
- Because in order to complete this project a reasonable understanding of the topic was necessary. The project highlighted and illustrated several important areas.
- Since it was interactive, it allowed me to see what the information was about.
- Because of daughter decay, it makes me understand the different between daughter decay and parent decay.

Maybe

- It made me do research on my own.
- Because if you learn it by yourself you tend to commit it more easily but you don't have the option of feedback.

No

- I just did the work to get it over with the info didn't stick.
- Did not have enough fundamentals to be of use.

Can you suggest a way to improve the activity? If so, explain.

- The program did not work at my house, not because of jibberish but because the tabs never came up no matter what I did, so someway that needs to be fixed. But every other program has worked.
- It was at its best.
- I think that a few more basic equations (examples?) would have been useful, both to assist in learning the information, and to gain understanding and confidence using the equations.
- Break it up into two parts. It was too long and compressed.
- Cover more of the information in class.
- Take more time to explain.
- No, good on it's own.
- No
- No

If given the option of doing this activity or having your instructor just lecture on the material, which would you select?

Activity Lecture Combination of both

2 (17%)

5 (42%)

5 (42%)

Please explain your choice. All comments are typed verbatim including spelling!!!!

Activity

➤ This information would be tedious and boring if explained in class.

Combination of both

➤ Some parts I needed help with and some were easy enough to figure out on my own.

➤ Needs lecture to help understand the entire concept in a more concrete (concrete) fashion and confidence.

➤ Instructor does a good job breaking it down into its simplest terms, at any point you can also ask him any questions.

➤ There are some things we don't know unless we are lectured.

➤ Because in lecture you can ask questions.

Lecture

➤ I learn better when the info is being taught to me by another individual.

➤ The lecture gives more of an understanding.

➤ I like to listen.

Any general comments or suggestions?

➤ I think that this particular subject is well suited to a do-to-understand approach.

➤ Pretty good exercise, just a bit too long and compact.

➤ Only go over relevant material in class. Give study guides for exams. Not old test.

➤ Just to figure out possibly why it did not work on my laptop.

...and thanks for taking time to provide feedback!

Your Welcome