

Appendix

This part of the questionnaire investigates the perceptions you have about chemistry and related topics. For example: If you feel chemistry is mostly about the study of natural substances, and only a little bit about the study of synthetic substances then you would answer the following questions as shown:

Chemistry Natural Substances $\frac{\quad}{\sqrt{\quad}}$ Synthetic Substances

Please indicate what you think about the following

Chemists			
1		-----	
	unfit		athletic
2	socially unaware	-----	socially aware
3	environmentally unaware	-----	environmentally aware
4	fixed in their ideas	-----	flexible in their ideas
5	only care about their results	-----	care about the effects of their results
6	unimaginative	-----	imaginative
7	indifferent	-----	inquisitive
8	impatient	-----	patience
Chemistry research			
9	harms people	-----	helps people
10	decreases quality of life	-----	improves quality of life
11	creates problems	-----	solves problems
12	causes society to decline	-----	advances society
Science documentaries			
13	boring	-----	enjoyable
Chemistry Web sites			
14	boring	-----	interesting
Chemistry jobs			
15	easy	-----	challenging
16	repetitive	-----	varied
17	boring	-----	interesting
18	unsatisfying	-----	satisfying
19	tedious	-----	exciting
Talking to my friends about chemistry			
20	dull	-----	fascinating
Science fiction movies			
21	tedious	-----	exciting

This part of the questionnaire investigates the confidence you have in undertaking different tasks. For example: If you do not feel very confident about talking to a scientist about chemistry then you would answer the following questions as shown:

a. Please indicate how confident you feel about talking to a scientist about chemistry

Not confident $_ _ \sqrt{_ _ _ _ _ _ _}$ Totally confident

Please indicate how confident you feel about			
1.	Applying a set of chemistry rules to different elements of the Periodic Table	Not confident	Totally confident
2.	Achieving a passing grade in a chemical hazards course	Not confident	Totally confident
3.	Tutoring another student in a first-year chemistry course	Not confident	Totally confident
4.	Ensuring that data obtained from an experiment is accurate	Not confident	Totally confident
5.	Proposing a meaningful question that could be answered experimentally	Not confident	Totally confident
6.	Explaining something that you learnt in this chemistry course to another person	Not confident	Totally confident
7.	Choosing an appropriate formula to solve a chemistry problem	Not confident	Totally confident
8.	Knowing how to convert the data obtained in a chemistry experiment into a result	Not confident	Totally confident
9.	After reading an article about a chemistry experiment, writing a summary of the main points	Not confident	Totally confident
10.	Learning chemistry theory	Not confident	Totally confident
11.	Determining the appropriate units for a result determined using a formula	Not confident	Totally confident
12.	Writing up the experimental procedures in a laboratory report	Not confident	Totally confident
13.	After watching a television documentary dealing with some aspect of chemistry, writing a summary of its main points	Not confident	Totally confident
14.	Achieving a passing grade in a Part 2 chemistry course	Not confident	Totally confident
15.	Applying theory learnt in a lecture for a laboratory experiment	Not confident	Totally confident
16.	Writing up the results section in a laboratory report	Not confident	Totally confident
17.	After listening to a public lecture regarding some chemistry topic, explaining its main ideas to another person	Not confident	Totally confident

This part of the questionnaire looks at your experiences during your most recent chemistry classes. (Please see Table on pg. 665.)

Please answer these questions considering all your experiences during your most recent chemistry classes. For example if you thought that three out of four of your lecturers encouraged you to enroll in the chemical hazards course, you would answer the following question:

a. My lecturers encouraged me to enroll in chemical hazards SD D N SA.

Strongly Disagree Disagree Neither Agree Strongly Agree

Please answer these questions about your lecture classes	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1. My lecturers were interested in my progress in chemistry	SD	D	N	A	SA
2. The concepts introduced in the lecture material were explained clearly	SD	D	N	A	SA
3. My lecturers encouraged me to take further chemistry papers	SD	D	N	A	SA
4. The lecture notes were interesting	SD	D	N	A	SA
5. The chemistry lecturers have made me feel that I have the ability to continue in science	SD	D	N	A	SA
6. The lecture notes were clearly presented	SD	D	N	A	SA
7. It was easy to find a lecturer to discuss a problem with	SD	D	N	A	SA
8. The lectures were presented in an interesting manner	SD	D	N	A	SA
9. The lecturers explained problems clearly to me	SD	D	N	A	SA
Please answer these questions about your tutorial classes					
10. The tutorial problems covered all parts of the course	SD	D	N	A	SA
11. The problems in the tutorial sheets were relevant to the course	SD	D	N	A	SA
12. My tutors encouraged me to take further chemistry papers	SD	D	N	A	SA
13. The tutorial sheets helped me understand the lecture course	SD	D	N	A	SA
14. The chemistry tutors have made me feel I have the ability to continue in science	SD	D	N	A	SA
15. The material presented in tutorials was useful	SD	D	N	A	SA
16. The material covered in tutorials was presented in an interesting manner	SD	D	N	A	SA
17. It was easy to find a tutor to discuss a problem with	SD	D	N	A	SA
18. The tutors explained problems clearly to me	SD	D	N	A	SA
Please answer these questions about your laboratory classes					
19. When writing up experiments in my laboratory book, the relationship between the data and the results was clear	SD	D	N	A	SA
20. My demonstrators were interested in my progress in chemistry	SD	D	N	A	SA
21. The practical experiments were related to lectures	SD	D	N	A	SA
22. What is required in the write up of an experiment is	SD	D	N	A	SA

23. The theory behind the experiments was clearly presented	SD	D	N	A	SA
24. The purpose of the calculations required for laboratory books write up was clear	SD	D	N	A	SA
25. The chemistry demonstrators have made me feel I have the ability to continue in science	SD	D	N	A	SA
26. The laboratory manual, experimental techniques and write up were all interlinked	SD	D	N	A	SA
27. What was required in the questions when writing up the laboratory book was clear	SD	D	N	A	SA
28. It was easy to find a demonstrator to discuss a problem with	SD	D	N	A	SA
29. The experiments were interesting	SD	D	N	A	SA
30. The amount of work required when writing up the laboratory book was appropriate for the amount of the assessment	SD	D	N	A	SA
31. The demonstrators explained problems clearly to me	SD	D	N	A	SA