This pre and post class survey was developed by the Evaluations Team from the ModularCHEM Consortium and ChemLinks Coalition Systemic Reform Projects. It was developed using data from a series of interviews and focus groups across 10 campuses consisting of three liberal arts colleges, two research universities, two state universities, two historically–black colleges, and one community college. The participants on each campus were selected using a stratified random design for gender, ethnicity, and major. The interviews and focus groups explored students' experiences in chemistry classes, including their interest and engagement, the effect of course organization and teaching on their thinking and learning experiences, their views of the nature of science, and their view of their own learning experiences. The words used in these surveys correspond to the language used by students.

Spring 98 Pre-class Chemistry Survey

Instructions

This survey is part of a larger effort to meet the needs of students taking general chemistry at colleges and universities across the country. Your individual answers are completely confidential and will not be seen by your professor or TA. Your survey will never be identified individually in any presentation (written or oral) of the information. Only the combined data from many students will be used.

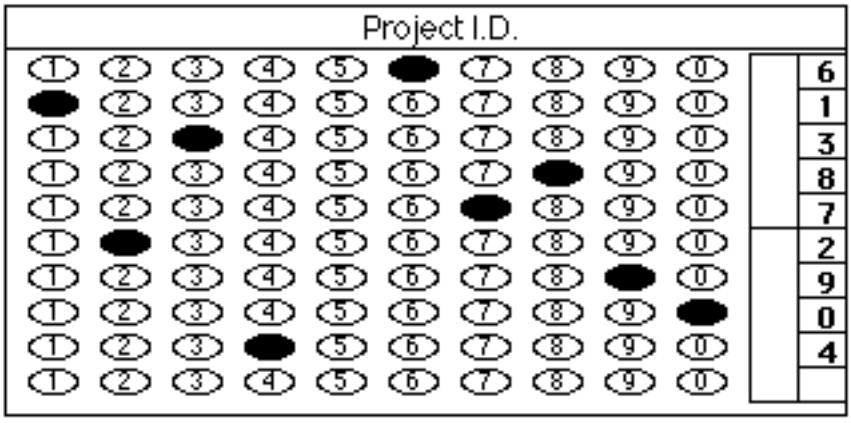
The survey is in two parts. Part one consists of statements to which we would like you to rate your level of agreement. If the statement does not apply to you (for example, if it describes working in groups and you never worked in a group in this class) please select "not applicable." If you are completely unfamiliar with the ideas mentioned in the statement, please select "don't know."

Part two asks for some general background information about you, so that we can better tailor our chemistry courses to the students who take them.

In order to match the survey you fill out at the beginning of the course with the survey you fill out at the end of the course, we are asking you to identify yourself by filling in **your full Student ID number**. Upon receiving each of your surveys, we will use an algorithm to alter your ID number, so that you cannot be identified from the information in the database.

Please write your **Student ID** in the Project ID box.

For example:



Thank you for participating by filling out this survey. You are making a contribution to our effort to improve your chemistry courses.

PART 1: Expectations and Class Experiences

Please use the 7-point scale to indicate your agreement or disagreement with each statement.

		strongly disagree			neutral		strongly agree	not applicable	don't know
1	It is important to me that a course provide time for discussing ideas.	**1**	**2**	**3**	**4**	**5**		**6**	**7**
2	I like courses that encourage me to discover some of the ideas for myself.	**1**	**2**	**3**	**4**	**5**		**6**	**7**
3	Being able to ask questions is important to my learning.	**1**	**2**	**3**	**4**	**5**		**6**	**7**
4	I value being able to apply chemistry ideas to everyday situations.	**1**	**2**	**3**	**4**	**5**		**6**	**7**
5	It is important to me to be able to use mathematics to solve chemistry problems.	**1**	**2**	**3**	**4**	**5**		**6**	**7**
6	It is important to be skeptical about the results of scientific experiments.	**1**	**2**	**3**	**4**	**5**		**6**	**7**
7	I prefer problems that have one right answer to problems that are open-ended.	**1**	**2**	**3**	**4**	**5**		**6**	**7**
8	Chemists work to uncover universal laws that already exist in nature.	**1**	**2**	**3**	**4**	**5**		**6**	**7**
9	Chemists construct theories that explain what they observe in nature.	**1**	**2**	**3**	**4**	**5**		**6**	**7**
	Assuming that all the following activities are equally well-implemented, **I learn well by ...**								
10	doing homework assignments.	**1**	**2**	**3**	**4**	**5**		**6**	**7**
11	using diagrams and other visual media.	**1**	**2**	**3**	**4**	**5**		**6**	**7**
12	using computer-based materials.	**1**	**2**	**3**	**4**	**5**		**6**	**7**
13	reading a (good) textbook.	**1**	**2**	**3**	**4**	**5**		**6**	**7**
14	working with my lab partner.	**1**	**2**	**3**	**4**	**5**		**6**	**7**
15	looking for the mathematical relationships among things	**1**	**2**	**3**	**4**	**5**		**6**	**7**
16	getting good help / tutorial aid.	**1**	**2**	**3**	**4**	**5**		**6**	**7**
17	doing hands-on activities.	**1**	**2**	**3**	**4**	**5**		**6**	**7**
18	listening to lecture.	**1**	**2**	**3**	**4**	**5**		**6**	**7**
19	giving one-on-one explanations.	**1**	**2**	**3**	**4**	**5**		**6**	**7**
20	doing in-class exercises.	**1**	**2**	**3**	**4**	**5**		**6**	**7**
21	preparing presentations.	**1**	**2**	**3**	**4**	**5**		**6**	**7**
22	writing papers.	**1**	**2**	**3**	**4**	**5**		**6**	**7**
23	completing lab notebooks or lab reports.	**1**	**2**	**3**	**4**	**5**		**6**	**7**

	I know I understand when ...	strongly disagree	disagree	neutral	agree	strongly agree	not applicable	don't know
27	I can work standard problems found in a textbook.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
28	I can reformulate a chemistry word problem in terms of mathematical relationships.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
29	I can apply ideas to new situations.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
30	I get a good grade on an exam.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
31	I can explain the ideas to someone else.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
32	I can see how concepts relate to one another.	**1**	**2**	**3**	**4**	**5**	**6**	**7**

PART 2: Background Information

Use the SCANTRON form to record your answers to the following:

33 Which of the following categories represents your age?
1. 19 years or under
2. 20 years
3. 21 years
4. 22 years
5. 23-29 years
6. 30-40 years
7. over 40 years

34 Which of the following represents your year in college?
1. First year
2. Sophomore
3. Junior
4. Senior
5. Senior +1
6. Graduate Student
7. Post-professional degree

35 What is your gender?
1. Female
2. Male

36 What is your intended major? (please choose only one)
1. Biological sciences
2. Chemistry / Chemical engineering
3. Environmental sciences
4. Other science / Engineering
5. Business / Policy
6. Social sciences
7. Humanities / Arts

37 What is the field of your intended career? (please choose only one)
1. Science / Engineering
2. Medical / Dental / Other Health Care
3. Teaching K-12
4. Business / Policy
5. Social sciences

38 Why did you enroll in this course? (please choose only one)
1. Interested in chemistry and it is required for my major
2. Interested in chemistry and it is NOT required for my major
3. Not particularly interested in chemistry, but it is required for my major
4. No definite plans yet, but thought I might need it later
5. Other

39 How many <u>years</u> of high school chemistry did you complete?
1. 1 year
2. 2 years
3. 3 years
4. 4 or more years
5. 0 years

40 How many previous college chemistry <u>courses</u> have you taken?
1. 1 course
2. 2 courses
3. 3 courses
4. 4 or more courses
5. 0 courses

41 How many more chemistry courses do you plan to take?
1. 1
2. 2
3. 3
4. 4
5. 5
6. 6 or more
7. 0

42 How many more courses do you plan to take in math and science (excluding chemistry)?
1. 1
2. 2
3. 3
4. 4
5. 5
6. 6 or more
7. 0

43 Based on past experience, what grade do you expect to receive in this class?
1. A to A–
2. B+ to B–
3. C+ to C–
4. D to F

44 What was your **Math SAT** score?
1. under 400
2. 400–490
3. 500–590
4. 600–690
5. 700–800
6. don't recall

45 What was your **Verbal SAT** score?
1. under 400
2. 400–490
3. 500–590
4. 600–690
5. 700–800
6. don't recall

46 **What is your ethnicity?** Please select only **one** category.
(If not listed under Question **46**, please select "None of the above" and continue looking in Question **47**.)

1. Mixed/multi-ethnic (Please write in your ethnic identifications at the top of the Scantron form.)
2. Pakistani or East Indian
3. Black/African-American
4. Latino or other Hispanic
5. Chicano/Mexican
6. Native American/Alaskan
7. None of the above. Please continue below.

47 What is your ethnicity? (continued)
If you selected a category from Question **46** above, please select "None of the above"

1. Chinese
2. Japanese
3. Korean
4. Pacific Islander
5. Other Asian
6. White/Caucasian/European
7. None of the above.

Thank You!