This survey was developed by the LEAD (The Learning through Evaluation, Adaptation and Dissemination) Center at the University of Wisconsin, Madison for "New Traditions Systemic Reform Project.

New Traditions: Introductory Chemistry
Beginning-of-semester Survey

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Introduction:

This tool was originally designed to assess chemistry students' confidence in their ability to master fundamental aspects of chemistry, as well as their perceptions of what were the most effective strategies by which they solved chemistry problems and grasped chemistry concepts. The tool is designed to be given in the first or second week of class and then followed-up with an end-of-semester survey which seeks to assess whether the course had an impact on the student confidence levels and learning strategies, as well as which components of the course might have had the greatest impact on any observed changes.

Those who wish to administer only one survey at the end of the semester may obtain related "before-and-after" information by using the New Traditions' before-and-after version of the end-of-semester survey in which students are asked (at the end of the semester) to compare, for example, their confidence levels at the beginning of the semester with those at the end of the semester. However, the interpretation of this latter sort of before-and-after data will be somewhat different than that arising from comparison of responses on the beginning-of-semester and end-of-semester surveys.

The first ten questions of this survey query students about ten different aspects of their confidence in their ability to engage in the task of learning chemistry. We planned to use this information in a variety of ways. One was to see how this correlated with "incoming characteristics" such as high school grades, standardized test scores, gender, and ethnicity. By the same token, we also wanted to see how confidence levels correlated with how students characterized their learning strategies in responses to the following two blocks of survey questions. Finally, we wanted to see how all these factors correlated both with student performance in the course and with their responses to the same and additional questions on the end-of-semester survey. In particular, we wondered whether increases in confidence levels were associated with the self-reported relative importance/effectiveness of particular learning strategies (e.g., such as group work or consultations with the TA), or with particular course components (e.g., such as special lab projects or workshops).

This survey was developed by the LEAD (The Learning through Evaluation, Adaptation and Dissemination) Center at the University of Wisconsin-Madison for the education reform project, "New Traditions Systemic Reform Project." This study is funded by the "New Traditions: Revitalizing the Curriculum" grant, DUE-9455928, administered by the National Science Foundation and awarded to the University of Wisconsin Chemistry Department.

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Chemistry Course Survey Consent Form for Students

The Learning through Evaluation, Adaptation and Dissemination (LEAD) Center is conducting a survey of some of the Chemistry Department's undergraduate courses. The survey is designed to assist faculty in understanding the effects of course innovations on students' learning experiences and may lead to improvements in the teaching of chemistry nationwide.

We are asking students who are enrolled in the participating lectures to complete a brief survey about their learning experiences in the course. The survey should take about ten minutes to complete. In order to correlate responses with demographic data and measures of achievement we are asking you to write your Student I.D. number on the survey.

All student responses will be held strictly confidential. The LEAD Center will generalize about student responses so as to obscure the identity of any particular students before reporting any survey findings. The LEAD Center may publish papers based on the results of this survey, but these materials will contain no information that would identify particular students.

Participation is completely voluntary. (Students choosing not to participate may simply return a blank survey). Refusal to participate will have no effect on your grade. There are no formal benefits or risks associated with participation.

Any questions you have you may ask now, or you may call Dr. Susan Millar, Director, LEAD Center, at 265-5943.

I have read the above and give my consent to participate in the study.

Signature _____

Date _____

STUDENT I.D. Number _____

(Please write your I.D. both here and fill it in on the upper left corner of the "bubble" sheet)

The LEAD Center wishes to thank you for participating in this national study of how students learn in college chemistry courses. The questions in the survey are intended to help LEAD Center

researchers understand your experiences in the chemistry course in which this survey is being administered. Your thoughtful responses to the questions in this survey will enable us to help faculty across the nation improve chemistry education.

Copies of this consent form can be obtained at the LEAD Center room 427, 1402 University Ave.

Please assess your ***CONFIDENCE*** levels in the areas below ***BEFORE*** attending this course. **(Fill in the appropriate number on the bubble sheet).**

		confidence level					
CONFIDENCE IN YOUR ABILITY TO...		**low**					**high**
1)	understand key concepts of chemistry	0	1	2	3	4	5
2)	solve chemistry problems	0	1	2	3	4	5
3)	understand the chemistry of lab experiments	0	1	2	3	4	5
4)	perform lab experiments	0	1	2	3	4	5
5)	visualize key concepts of chemistry	0	1	2	3	4	5
6)	apply your knowledge of chemistry to the real world	0	1	2	3	4	5
7)	understand other areas of science	0	1	2	3	4	5
8)	succeed in this chemistry course	0	1	2	3	4	5
9)	succeed in a chemistry-related discipline	0	1	2	3	4	5

	What grade do you expect in this course?						
10)	**For...**	C	BC	B	AB	A	other
	Fill in...	0	1	2	3	4	5

Please rate the ***relative importance*** of each of the factors below in terms how you might approach ***solving a difficult chemistry problem:*** **(Fill in the appropriate number on the bubble sheet.)**

		not very important					**very important**	**not applicable**
11)	working on your own	0	1	2	3	4	5	6
12)	doing similar homework problems	0	1	2	3	4	5	6
13)	reading sample problems in the text	0	1	2	3	4	5	6
14)	reading explanations in the text	0	1	2	3	4	5	6
15)	asking your instructor (out of class)	0	1	2	3	4	5	6
16)	asking your instructor (in class)	0	1	2	3	4	5	6
17)	friends/informal groups (out of class)	0	1	2	3	4	5	6
18)	course organized activities (in class)	0	1	2	3	4	5	6

Please rate the ***relative importance*** of each of the factors below in terms of helping you to ***grasp difficult concepts in chemistry:*** **(Fill in the appropriate number on the bubble sheet.)**

		not very important					**very important**	**not applicable**
19)	working on your own	0	1	2	3	4	5	6
20)	doing homework problems	0	1	2	3	4	5	6
21)	reading sample problems in the text	0	1	2	3	4	5	6
22)	reading explanations in the text	0	1	2	3	4	5	6
23)	asking your instructor (out of class)	0	1	2	3	4	5	6
24)	asking your instructor (in class)	0	1	2	3	4	5	6
25)	friends/informal groups (out of class)	0	1	2	3	4	5	6
26)	course organized activities (in class)	0	1	2	3	4	5	6
27)	lab experiments	0	1	2	3	4	5	6

For each activity listed below please rate its ***overall effectiveness*** for assisting your learning in ***previous math and science*** courses. **(Fill in the appropriate number on the bubble sheet).**

		not very important					**very important**	**not applicable**
28)	working on your own	0	1	2	3	4	5	6
29)	talking with the instructor (in class)	0	1	2	3	4	5	6
30)	talking with the instructor (out of class)	0	1	2	3	4	5	6
31)	working with others on group projects	0	1	2	3	4	5	6
32)	talking with friends (out of class)	0	1	2	3	4	5	6
33)	working on open-ended labs	0	1	2	3	4	5	6
34)	working in small groups (in class)	0	1	2	3	4	5	6
35)	working in small groups (out of class)	0	1	2	3	4	5	6

Thank you for your participation!