

Focus Group Protocol

A series of focus groups were run to understand better how students learn General Chemistry at the University of Notre Dame. Two focus groups were targeted at CHEM 113 students and two were for CHEM 117 students. CHEM 117 is taught in the traditional sense: 3 hours of non-interactive lecture, and two hours of laboratory each week. CHEM 113 is taught through three hours of lecture, one hour of cooperative problem-solving, and two hours of laboratory each week. CHEM 113 students have required homework and, in general, show a lower aptitude for math ($\text{MSAT} \leq 630$). Students in all four focus groups shared the same instructor (Prof. Jerry Godbout), textbook (Chemistry, The Central Science by Brown, LeMay, and Bursten), and laboratory.

Letters of invitation were sent to a random set of students in the traditional and alternative sections of General Chemistry. Of the eighty students who were invited to participate, twenty-one agreed to come, and fourteen actually showed up (seven from each class). The low attendance could be attributed to poor timing; all four focus groups met at the end of the semester - the week before final exams.

Students were initially contacted by a department secretary, and all scheduling arrangements were coordinated by this individual. When the participants arrived at the focus group session, they were introduced to the facilitator, Dennis Jacobs, with whom they had no prior contact. Most, if not all, were unaware that the facilitator was a professor in the Department of Chemistry and Biochemistry. The facilitator defined the purpose of the focus group, explained that all comments would be held in strict confidence, and clarified that the identity of the participants would not be revealed. Each hour-long focus group session was recorded on audio tape with the unanimous permission of the three to four participants. The atmosphere was informal, and refreshments were available throughout the session. A pre-selected set of twenty questions were asked in all four focus groups. Follow-up thank you letters were sent to all participants.