

New Traditions: Teaching Assistant Interview Protocol

John Moore

Department of Chemistry
University of Wisconsin-Madison
1101 University Ave.
Madison WI 53706
email: jwmoore@chem.wisc.edu
(608) 262-5154

Susan Millar

LEAD Center
University of Wisconsin-Madison
1402 University Ave.
Madison, WI 53706
email: smillar@enr.wisc.edu
(608) 265-5943

Debby Penberthy

LEAD Center
University of Wisconsin-Madison
1402 University Ave.
Madison, WI 53706
email: penberth@enr.wisc.edu
(608) 265-5927

Introduction:

In March and April of 1997, LEAD Center researchers interviewed 7 out of the 8 Chem 104 (2nd semester general chemistry) Topics Oriented Approach (TAO) teaching assistants (TAs) using this open-ended protocol.

Conducting the interviews

These LEAD Center interview protocols were based on specific research questions. The research questions generally focused on the effectiveness with which the course professor's learning goals were achieved and the nature of the students' learning process. If a potential user of these instruments has different research questions, some of the interview questions may not be appropriate.

All of the LEAD Center interview protocols included here are open-ended. In contrast to most surveys, open-ended interview protocols are designed to allow the respondent to speak freely about their experiences without being limited by predetermined response categories. Potential users of these instruments should keep in mind that the questions served as a guide to a "conversation" with the interview respondent; the questions were not asked verbatim or in the same order for each interview, as the interviewee was allowed to guide the conversation to some degree.

Interviews were conducted by LEAD Center researchers. In all cases these researchers were considered "third party" in that they were not members of the academic departments through which the course or program under evaluation was taught. Thus, the identity of student interviewees was not revealed to the course instructors, and students were informed that this was the case before agreeing to participate. This was important because it allowed the student interviewees to feel that their opinions would not affect their relations with their course instructors. In cases where no third party evaluator is available or desirable, we recommend that the interviews be conducted by

someone who has no control over the students' grades. One possibility is for two professors to interview each others' students.

Analyzing the interviews

Results based on the use of LEAD Center interview protocols were obtained by analysis of verbatim transcripts of the audio-taped interviews. Although it is not necessary to transcribe the interviews, this does allow for more in-depth analysis of subtle themes. It is possible for the interviewer simply to take notes during the interviews and base their analysis on these notes.

The LEAD Center analysis process consists of developing inductive, thematic codes for the students' experiences. Generally, the researchers first read all of the transcripts. Then, they develop a rough coding scheme based on themes which appear in multiple interviews. Using this scheme, each individual transcript is coded. Then, interview excerpts are cut and pasted into an analysis document so that statements which are alike can be examined side by side. (Alternatively, a commercial qualitative research software package may be used to sort and manage coded interview themes.) The coding scheme is gradually refined so that it represents a listing of the umbrella themes that capture the range of experiences discussed in the interviews. The analysis process is quantitative only in the sense that rough counts of the number of interviewees who spoke about a particular type of experience are developed. It differs from the traditional definition of quantitative analysis in that it does not tell one how many of the participants had a particular experience, but only how many chose to talk about it in the interview. Again, the interviewees are engaged in conversation, and therefore, not all issues are touched upon in each interview. Thus, though a small number of students may discuss an issue, the issue might be important in the experiences of a larger number or percentage of students.

New Traditions: Teaching Assistant Interview Protocol

Introductions and presentation of the Informed Consent form.

Briefly review points from the Informed Consent. Check that the instructor is comfortable with the tape recorder. If not, just take notes.

Background (for TAs who did not complete a pre-survey)

1. Take a few minutes and give me a brief history of yourself - a history that helps me to understand how you came to be a TA in this course.
2. What, if any, preparation did you receive to be a TA in Chem 104? {Probe for formal and informal experiences}
3. What were your initial expectations about what it would be like to teach in this course?

Goals (for TAs who did not complete a pre-survey)

4. What are your goals for student learning in Chem 104?
5. What are the professor's goals for student learning in Chem 104? How, if at all, do your goals differ from the professor's goals?

6. When you started this course, how confident were you that it would be successful? {Probe for thoughts about groupwork.}

General Questions about 104 (for all TAs)

7. Do you have separate goals for the different course components, such as discussion, lab, and workshops? If so, please describe?
8. Could you describe what you do as a TA for Chem 104? How, if at all, does this differ from what you've done as a TA for other lower level chemistry courses?
9. How is the course going, at this point?
10. Do you feel that you are meeting your expectations/goals for yourself? Why, or why not? Are there things that have hindered your ability to do this?
11. What have been the hardest things for these students to learn? Were there particular things you did that seemed to help? Were these new strategies for you?

Lab

12. How would you characterize the labs for this course? How, if at all, are they different from other labs you know about?
13. To what degree are the lab experiments coordinated and integrated with the lecture part of this course? How, if at all, does this affect students' learning?
14. How is lab going at this point?
15. What do you do in the lab? [Prompt: what role do you play?]
16. How much do you feel students are learning in the labs? [Prompt: What kinds of things are they getting out of lab (conceptualization of principles, lab technique, etc.)?]
17. In your opinion, how do the integrated lab reports affect student learning? {Probe for effects of other "unique" elements of lab.}
18. How do students relate to each other and to you in the lab? Is there organized groupwork? How effectively do the students seem to work together in lab?
Do the labs help the students to understand the course concepts?

Discussion sections

19. Please describe your discussion sections. What you do in discussion section? What do students do?
20. How is discussion section going at this point?
What, if anything, do you feel students get out of discussion section? {Probe: How much do you feel students are *learning* in discussion?}

Lecture

21. Do you attend lecture? If so, can you describe what the lecturer is like and the regular features of the lectures?
22. In your opinion, to what degree does attending the Chem 104 lecture help your students learn chemistry? Please explain.
23. What is the role of the lecture in this course? What do students gain? Miss?
24. How does the lecture shape your role as a TA for this course?

Workshops

25. Describe what happens at the weekly workshops? What are they like? What role do you play? How do the students interact?
26. From your experience, what, if anything, do you feel students get out of attending?
27. How many people usually attend?
 - a) Is it usually the same group of students?
 - b) Is there a particular type of student who tends to attend?
 - c) Do you have any ideas on why the ones who don't attend, don't attend?

TA meetings

28. Can you describe the TA meetings. What are they like? What is the purpose of the meetings?
29. What, if anything, do you get out of them?
30. Can you compare these meetings with TA meetings for other courses you have taught?
31. Are student concerns/difficulty with the course discussed at these meetings? Are strategies for addressing these problems devised?
32. Have you ever worked in the group that works on the problem sets for the workshops? If so, what effect, if any, has this had on your ability to facilitate the workshops (probe for examples?)
33. Have you ever worked in the group which develops the quiz questions? Tell me about this process, and what, if anything, you and the other TAs gain from it.
34. Do you have any suggestions for changes to the TA meetings?
35. Having come close to the end of the semester, what is your opinion on the adequacy of TA training for this course?
 - a) Were there aspects for which you felt the TAs could have used more preparation?
 - b) Aspects which were particularly difficult?
 - c) Anything else that could have been done to make you as successful as possible?

Closure

36. Are there particular problems that you or the students have experienced in this course that we have not already discussed?
37. Do you have any other thoughts about the efficacy of particular teaching strategies that you or the course professor have been employing?
38. We will be interviewing students soon. Do you have issues that you want discussed or specific questions you would like the students to discuss?
39. Is there anything else you can tell us in order for us to understand Chem 104 better?
40. Do you have any questions or comments that you would like to share with me?