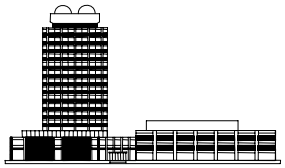

Department of Physics
University of Toronto

Microteaching Mini-Course

"Public Speaking for Physicists"

Jason Harlow

Thoughts and reflections based on the January/February 2007 experience.
Coordinator: Jason Harlow
Senior TAs: Rob Adamson and Catherine Robin
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Summary

This mini-course is generally helpful to 1st year graduate students. The original goal of this course was to provide students with general help in speaking in front of an audience; both in a teaching and research presentation environment. This ended up sending a mixed signal to the students; many were not sure if this was TA training or a chance to talk about their research. Students seemed most appreciative of advice on how to teach physics, rather than general public speaking tips.

Many felt that the presentation room in MP129 was too small for 5 people plus the videotaping and computer equipment.

Next year:

- the mini-course should be held in September as early as possible, so students can focus on preparing themselves to teach for the first time.
- a larger room should be used for both 1st and second presentations, such as 408 or 505.
- all the video-taping equipment should be reserved for the 2nd presentation as well as the 1st
- while freedom to present anything should be allowed, a definite set of suggested topics and situations should be provided. (ie, "Explain the donkey and cart Newton's 3rd law dilemma to a group of PHY138 students.")
- Presenters should be forced to state before each presentation:
    - who is the intended Audience (high or low) – the audience should be encouraged to pretend to be this intended audience!
    - what is the Purpose (TAing or presenting).

Student Comments

On Jan. 12, 2007, during the first meeting, I asked students:

Is there anything in particular about public speaking you are curious or nervous about, or would like us to address in this course? There were 3 responses:

- I don't look forward to public speaking, but it's neutral to me. What this course might help (along with effective communication in physics) is improving the quality of my speaking (poor, lots of err's and ahh's).
- Answering questions in tutorial you are unprepared for.
- Any tips on keeping students' attention when they do not have much interesting the course material?

During the last meeting, 7 questions were asked, 3 numerical, 4 free-form answers. 18 students responded. Below are a summary of the answers

1. **Overall, what was the value of the learning experience of this mini-course for you?**

1. very low 2. low 3. below average 4. average 5. above average 6. high 7. very high

The average was 4.5 ± 1.3, which is slightly above average. Of 18 respondents, 2 responded "very low" or "low", and 4 responded "very high" or "high".

2. **Please rate the ability of the course coordinator and your senior TA in organizing and running the course:**

extremely poor very poor poor adequate good very good outstanding

1 2 3 4 5 6 7

The average was 5.9 ± 0.7, which is very good. Of 18 respondents, zero responded "very low" or "low", and 13 responded "very high" or "high".

3. **Please rate the ability of the course coordinator and your senior TA in offering feedback and answering your questions:**

extremely poor very poor poor adequate good very good outstanding

1 2 3 4 5 6 7

The average was 6.1 ± 0.6, which very good. Of 18 respondents, zero responded "very low" or "low", and 16 responded "very high" or "high".

4. **What did you enjoy most about the course?**

- The suggestions and advice by senior TA.
- Hearing and seeing other students' talks (×2)
- Improving my presentation ability.
- Having my peers evaluate my teaching skills.
- Watching myself on video.
- I learned a lot of skills to make a report.
- Senior TA tends to be very attentive, pointing out things I would never see.
- Feedback on general presenting skills, especially for a general audience.
- Good opportunity to do presentation without the worry of marks.
- Meeting other students, seeing new physics, and hearing about my presentations.
- Intelligent comments and constructive criticism.
- Valuable feedback, video was really instructive.
- I feel that I've improved a lot from the 1st presentation to the 2nd.
- Really good senior TA's who give very good and useful advice (also getting feedback from other students).
- Relaxed format; had a bit of fun with it.
- Opportunity to present different topics and listen to other people's projects.
- Made me less nervous if any presentation would be needed. A sense of timing.
- Freedom of topic choice.
- Feedback from different people with different experiences about teaching – learned how to improve – welcoming environment.

5. **What did you enjoy least about the course?**

- The room was not suitable for presentations.
- Watching myself on video
- The atmosphere was too artificial. People felt a tad inhibited to criticize their co-grad students.
- My English skill is not very enough.
- Maybe not as practical as it could be (such as working out textbook problems as a TA)
- Having to come to school during a blizzard for this! ☺
- Too abruptly thrust on us. Mixed signals as to what the course was meant to do and what the talks were supposed to be.
- Watching myself on video, but it was quite useful…
- The "artificial" situation of having 4 students and 1 TA participating
- Not enough comments obtained.
- contents highly uncontrollable: less disturbance by shock of brand new stuff, more concentration on TA's performance.
- 4 hours so close to each other. Also, I didn't enjoy being videotaped, but it was a very good and almost necessary experience.

6. **Was there anything you felt could have been included in the preparations or execution of this course that was not done?**

- Aiming the course at your own specific TA job. Talking about your research doesn't necessarily help you do 2nd year level tutorials.
- Use the video during the 2nd presentation.
- The 2nd 10 minute talk could have been videotaped as well.
- Movie files of our performance could have been emailed to us so that we'd get to review it at leisure.
- How to handle difficult students while TAing.
- More clarity on the course goals and what kind of talks we should give. One TA, one research vs anything you want? More time to make better scheduling I missed two classes for this. ☹.
- Add a selection of exceptional talks given in a larger forum.
- The 2nd talk could have had a larger audience: invite undergrad and other grad students?
- Make it count for something… or a prize for most improved 2nd presentation.
- Some more experienced speaker to teach or talk about teaching.
- Some range of topics should be discussed and talked about at the beginning.
- Some short training before we perform the presentation ourselves.
- Split the course into 2 hours at the beginning of the year to learn how to TA before being thrown into it followed by the next 2 hours in Jan/Feb to review skills and offer advice for improvement.

7. **Was there anything that you would like to see dropped from the course?**

- The 2nd presentation should be optional.

Other comments:

- Rob was great with the feedback!
- We could have hone more senior TA or teaching faculty member present, maybe some undergrads too?
- The sessions ought to be longer, say 20 minutes.

- The criticism often centred around specifics of the talk. Longer talks may bring out more of one's style and evoke more meaningful criticism.
- As the course is aimed toward TAing and demonstrating, PowerPoint is rarely used. Should be geared towards explaining physics concepts.
- Maybe make this a more "official" course by including it on ROSE (perhaps even make it a pass/fail course)
- can have senior TA's attending tutorials / labs taught by first year grad students and take notes / make evaluations
- would be nice to expand on the "lecture" part (eg. Jason giving more tips before the actual presentations)
- Perhaps it would be better to have someone watch /videotape a real tutorial and then comment on that.
- 10 minutes of presentation is not realistic.
- Presenting to 4 people versus 30 students is completely different.