

Notes on Teaching  
Howard Lasnik**0. Know your material.**

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- There are no teaching tricks that are substitutes for knowing your material. All teaching techniques are just ways of making effective use of your knowledge.

**I. General philosophy**

- (1) Never forget, or forget to convey, that what you are teaching is important and interesting.
- (2) You are not smarter than the students in your class; you are not a better person than they are. You just happen to have some information that they don't (yet) have. (And they have plenty of information that you don't have. Always keep that in mind. Maybe even try to make use of that fact.)
- (3) As a teacher, you are selling information. Like any salesperson, you must catch (and hold) the customer's interest, or you will have no chance to make the sale. Do whatever works for you. Use your voice, your body language, the blackboard, handouts, overheads, cartoons, analogies, metaphors, anything. At all costs, connect with the students somehow. It's fine to occasionally personalize the material. If the topic you are discussing is one that you or one of your colleagues (or teachers or fellow graduate students) has worked on extensively, tell the class that.
- (4) The students have paid good money for a good class. It is your responsibility to give them one. You might be tired, or angry about something, or distracted, or ... But noone in the class should be aware of any of that. They don't get a refund if you do a bad job because you have a headache.
- (5) Develop a style that works for you. Being very animated works for me; it might or might not for you. (Catatonia doesn't work for anyone, though.)
- (6) Be very approachable, physically and emotionally. Learn the students names and refer to them by name. Arrive a few minutes early and linger a few minutes after class. Those few minutes can often be the turning point in a student's understanding.
- (7) But don't run the class overtime. Especially in an undergraduate class, those extra minutes, no matter how brilliant and incisive you think you are being, will be completely wasted.
- (8) Talk to the class, not to the blackboard or your notebook.
- (9) Let the students know that you are available outside of class and willing, in fact eager, to talk to them. Post office hours, but also publicize the fact that there are also additional times for them to meet with you. Make your e-mail address available; respond very quickly to any messages.
- (10) Everything is hard for someone who doesn't already know it. Keep reminding yourself of this, since once you know something, it is easy. Once a year, go to a lecture in nuclear physics to gain some sympathy and humility.
- (11) At all costs, avoid the trap of confusing ignorance with stupidity.

- (12) A fundamental rule of teaching: if the students don't understand, it isn't their fault. This sounds obvious, but it is surprisingly easy to forget it.
- (13) If the students don't understand and it is their fault, see (12).
- (14) Over 40 years ago, Morris Halle told me that there are no bad students, just bad teachers. Perhaps that isn't entirely true, but it's a lot closer to true than to false. And it is crucial that you run your class and interact with your students as if you believe that it is true.

## II. Running the class

- (15) The first meeting of a course is very important. It can set the tone for the whole semester, for better or for worse.
- (16) Keep in mind just how the material hangs together. Keep reminding the class how it hangs together. (A written syllabus can be helpful in this regard.) Repeatedly emphasize the unifying themes, and how the material of the day relates to them.
- (17) It is generally helpful to begin a class meeting by summarizing what went on last time. Then connect it to today's material, and give an overview of today's theme. At the end of the class session, briefly summarize what went on, and connect it to the theme for next time.
- (18) Tell the class just what you want them to read to prepare for next time. It might seem obvious to you, but it won't be to them.
- (19) Every field makes extensive use of jargon. Jargon is necessary and greatly facilitates communication among the initiated. But there is no way for the uninitiated to know the jargon. (Ex. You can know the English word bind without having the vaguest idea what Binding Theory is about; You can speak English without knowing the term 'noun phrase'.) Continually monitor your own terminology to make sure that you aren't using jargon that you haven't yet introduced.
- (20) Treat the students and their ideas with respect even if those ideas seem to you to be clearly wrong and even if they lead in a direction you don't want to go.
- (21) Never try to snow the class. If a point or question comes up that you don't know how to deal with, don't bluff. Say that it is an interesting question; say why it's interesting; then maybe say to the class "Let's see if we can figure it out together" or else promise to get the answer for next time. Then DO IT.
- (22) But if it happens repeatedly that you are stumped in class, reconsider your quantity and quality of preparation.
- (23) Be extremely well-prepared. Be on top of everything you are going to talk about, and everything related to it. But then be prepared to be surprised. (I'm still taken by surprise.) Be willing to go off in a different direction if that seems appropriate.
- (24) DO NOT try to use all the material you have prepared. If you can make one or two points really well in a class session, congratulate yourself on a job well done. These points should be important. Ask yourself what you realistically hope the students will still remember a week from now, a month from now, a year from now.
- (25) Emphasize with your choice of words, your allocation of time, your use of your voice, your body language, how you arrange things on the blackboard, what is peripheral and what is central. (And DO NOT

display annoyance when you are asked about whether a particular point is important, will be on the exam, etc. The students have every right to know.)

- (26) Handouts can be very useful, especially if the material you are presenting goes beyond what is in the text book, but sometimes even if not.
- (27) Don't spend a lot of time criticizing or disagreeing with the textbook. It makes you look bad, and it promotes cynicism among the students. Is either of those desirable?
- (28) Likewise, if you are TAing in a lecture class, do not criticize or disagree with the lecturer. (In the rare circumstances where the lecturer has made a significant mistake, and one of your students asks you about it, agree that it does seem to be a mistake, promise to investigate further, and do so.)
- (29) Use exactly the same examples that are in the book to present analyses unless there is a compelling reason to use different ones.

### III. Written work

- (30) Make the course requirements explicit, in writing. The students need to know exactly what is expected of them.
- (31) In homeworks and exams, every question or task must have a point and a purpose (which you could articulate) and a reasonably precise answer or result that could be arrived at from the material presented.
- (32) For each exercise, know in advance what you will consider a good answer to be (but, of course, allow for the possibility of a surprisingly good answer). Do the exercises yourself before you assign them. Then grade yourself.
- (33) If many students made the same mistake, your first reaction will likely be, "Oh, those stupid students." Squelch that reaction. Replace it with "What did I do wrong in presenting the material?"
- (34) Written work should be returned to the students quickly, while the students still remember the point of the exercise. If at all possible, the very next class after the work is turned in is when it should be returned. And when you return it, discuss it some. Try to make some good answer the basis for part of your lecture.
- (35) Never return the work with no comments at all. If there are mistakes, offer corrections and suggestions. If there are none, comment on particularly good answers. You have to convey that you take the students' work at least as seriously as they do.

### IV. Class discussion

- (36) If you want to stimulate discussion (and you should), you have to make it worthwhile for students to participate. It's easy to make it not worthwhile: you could ask a question and say 'No' or 'That's wrong' when you don't get the answer you want; you could simply ignore an undesired answer; you could get into an argument with the student giving such an answer; or you could score debating points off the student to show how clever and knowledgeable you are. Adopt these techniques, especially the last two, and you will never be bothered by class discussion again.
- (37) Similarly, you should encourage questions from the class. (If you don't get any questions, the odds are low that it's because every

- student understands everything.) Never respond to a question by saying (or implying) that the question isn't important or that you don't want to get into it.
- (38) Instead, when a student asks a question, show that you are happy about that (even if, or especially if, you are not particularly pleased with the question). Say what a good question it is, or how it is just the right question, or how that very question inspired Chomsky to...
  - (39) Restate the question for the class, since not everyone heard it, and of those, not everyone understood it. As you restate it, you can clarify it and sharpen the point. Then answer it clearly and in an encouraging manner.
  - (40) As your presentation continues, refer back to questions, comments, suggestions, etc. that students have brought up. That is the best possible way to demonstrate respect for your students.
  - (41) If you aren't getting any questions from the class, ask yourself why. Perhaps you are conveying a hostile attitude. Or perhaps you are trying to get through too much material (a very common mistake), hence not pausing to encourage questions. If you are pretty sure you are doing all the right things but are still not getting questions, you might ask the class why.
  - (42) When you ask a question, don't be afraid of a little silence. When you don't get an answer immediately, you will be very tempted to answer it yourself and then go on. Resist this temptation, because if you succumb to it that will indicate to the students that all your questions are rhetorical, or, just as bad, that you don't expect them to think before they answer.
  - (43) Here's a hard one: Don't let one eager beaver take over the whole class discussion. For example, you don't have to call on the first volunteer every time.
  - (44) Here's another hard one to think about: You've just spent 15 minutes giving a brilliant explanation of some important issue. As you're finishing, someone raises their hand and asks a question whose answer would be precisely what you've just presented. What do you do?

## V. Grading

- (45) Standards are important, but it must be clear what they are. Be prepared to defend any grade you give. When you are in doubt, give the student the benefit of the doubt.
- (46) Find out what the grade distribution is usually like in your course. Don't penalize students for being in your class or section. But also, don't penalize students for not being in your class.