Resource: The Torch or the Firehose Arthur Mattuck

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Prologue

You're down on the list to teach Recitation 09 of a large course, Introduction to Applied Science. The 400 students enrolled will hear—or at least sit through three lectures a week by a big name in the field still hoping for a Nobel Prize. Those students lucky enough to have been assigned to Recitation 09 will have you as their recitation teacher for two additional classes a week; it's to you they will consign their weekly problem sets, their hour exams, and their hopes for an A.

Twice a week you walk through the classroom door to be greeted by thirty upturned faces—there were twenty to start with, but your spreading renown has attracted others—and a clamor of questions about the week's lectures and problem sets. Suavely and with unfailing good humor, you deal with these, providing the needed insight with a few deft words. Now and then you delve into your experience to provide a striking example that animates what had seemed to be just dead knowledge, or a lively anecdote that places the subject in a human context. If the week's lectures have been difficult, you may spend part of a period offering to your students your own view of the material: it is penetrating and clarifying, and your students interrupt you with perceptive questions and comments. Grading their problem sets and exams is a joy as you chart their steadily growing competence. They badger you for literature references, and at the term's end crowd around you to find out what you are teaching next semester and what the best sequel to the course would be. No evaluation is needed: the glow in their eyes tells all...

Wake up, we're back on Earth: it's the first day of classes, and in just two hours Recitation 09 will materialize as a bunch of interested but appraising faces. What happens from then on is partly up to them, but mostly up to you.

In this booklet we'll talk about some common problems in teaching, and offer a variety of ideas you can try. We're concerned primarily with the teaching of recitations that accompany large lectures, so you won't be reading about how to design a course or how to lecture. But don't put the booklet in the circular file just because you're teaching your own small class by yourself: maybe three-fourths of what's in here applies to you, too. Even you three-star generals who give the large lecture classes might look at this booklet because generals need to be in touch with the problems faced by their second lieutenants; if they ask for your advice on some teaching problem, you can tell them you'll think it over and then crib an answer from the booklet.





Right now, however, we'd like to say a few words to the new teachers important things that might otherwise be submerged in the sea of suggestions we're coming to.

If you're just starting out as a teacher, you may find all this advice a bit bewildering and hard to keep in mind. A lot of it will only come alive after you meet your students and have had a few sessions with them. We suggest you read the booklet through quickly now and come back to it from time to time as the term goes on. There is no single "right" way to teach; your task is to develop your own natural teaching style, choosing and adapting suggestions to fit your own personality. Don't follow advice that makes you really uncomfortable—you need to be relaxed to be effective. But shy teachers sometimes have to push themselves a little.

No two recitations are alike. Popular and experienced faculty having two recitation sections of the same subject will report that one is regularly a joy to teach, the other like pulling teeth all semester. The mix of students, the time of day, some subtle interaction between your personality and theirs—who knows? Remember this if things are sometimes difficult. Remember too that you are not solely and personally responsible for the success or failure of your students. They have many other resources—lectures, books, tutoring sessions, friends. Just do what you can.

By the same token, you have resources to help you improve as a teacher and the most important are your colleagues. Make every effort to meet other recitation teachers and regularly share classroom experiences with them, trade material and discuss different explanations with them, exchange classroom visits with them. Have a videotape made and ask them to watch it with you. A recitation instructor should talk to the lecturer, too; at staff meetings you can provide important feedback from the students—how they like the course, and what troubles they are having. In this way, not only you, but the course itself will improve.

How This Booklet Is Organized

Chaotically, according to the critiques of the first edition of the booklet.

Irretrievably, according to those searching for some bit of advice they dimly remember seeing somewhere in it.

Actually there is a guiding principle: put the most common problems first so that readers in a hurry can still get something of value from it.

But this doesn't address the two organizational complaints. So a summary has been added to the end of the booklet, arranged, we hope, in some mildly logical order, with page references to the text of the booklet. Consult this if it's five minutes before class and you need a quick fix. For further help in retrieval, an index has been added.



