A Conversation with NJ Professor of the Year, Stephen J. Greenfield

This past December, the Carnegie Foundation for the Advancement of Teaching and the Council for Advancement and Support of Education (CASE) named Rutgers math professor Stephen J. Greenfield the 2004 New Jersey Professor of the Year. TAPTalk asked Professor Greenfield to share some of his ideas about teaching. Here are some excerpts from that conversation.

TAPTalk (TT): How have your teaching methods changed over time?
Professor Stephen J. Greenfield (SJG): I gave much more perfect lectures when I first started teaching than I do now, period. Gee, I make errors now and I screw things up and I get confused a lot.
TT: And your students like that better?
SJG: No, but occasionally they get involved more, which is, of course the purpose of that. I mean one’s style is personal, and it would be hard for graduate students who have been in classes of mine to agree with this possibility, but I began giving absolutely perfect, icy beautiful lectures where everything was totally meticulously prepared ahead of time and now things are...things seem to be much more slipshod, seem to be much more slipshod and I don’t know what I’m doing and accidents happen and all sorts of things, and they’re all arranged.
TT: Do you have different strategies for teaching large lecture classes, versus small classes?
SJG: Oh sure. You've got to talk louder...Certainly whenever I go to observe other teachers I sit in the very last row in the most inaccessible place and one of the first things I try to note is if I can hear the instructor. I should be able to understand what's being said. If they use the blackboard I should be able to read without undue squinting, and it does no harm to make sure these most straightforward things are taken care of. It’s cheap. You just go and you play around in the room, and every time I’m assigned a new room I still go before the semester begins and I still write the letter “a” small and then I write it big and I go to the back of the room and I look and I try to talk and see how my voice is pitched. You asked how
my style of teaching or classroom instruction would be different relative to sizes of classes. There’s one way, just the physicality, and in fact the whole acting for a large room is different. By acting I mean the way you move, how you gesture is quite different if you have people within 15 or 20 feet of you and people who might be 100 feet away. Unfortunately I have an absolutely foul memory for people’s names. I have friends, I have colleagues who literally, to my amazement, by the end of a month of instruction will know the name of eighty percent of 100 students. By the end of a semester of instruction I might know the names of 10 to 15 students. I have a terrible memory for—what was your name?—so, it’s very hard to single out students and have useful interactions with them. “Hey you over there, yeah you wearing the hat turned backwards.” So a large audience makes a class more impersonal, and that’s just another barrier to interaction. I believe that there is a place for distance education, but I don’t believe the technology has yet evolved to the point to totally eliminate human interaction in education.

Therefore, even in a large lecture there’s a place for interaction and that makes it better than reading or playing with an instructional program on a computer. I can’t teach everybody in a class of 100. That’s a little upsetting. I have to go by whether most people seem to have understood something. I think the uncertainty factor in a large class is much larger and you can’t do much about it. In a small class if I have 15, 20, 25 students, even I can get to know their names, and even I can sort of keep people on task—you know involved in whatever is going on a little bit better. Even if I’m giving a great lecture with lots of interactivity, in a class of 100 that still means five or ten people are reading the paper, asleep, thinking about their checkbook or other things.

TT: Do you use instructional technologies?
SJG: Yes. In the last three years I have begun writing for each of the courses I teach a sort of a diary that covers the stuff I did during the class. I do this for several reasons. First, even with the best will in the world, almost any student is going to miss a class or two—not without my excommunication—but is going to miss a class or two during the semester. Second, I make mistakes in class and it’s nice to have a forum to fix things. Third, it gives me a chance, perhaps, to mildly expand on what I did in class and to provide links to other material that I find of interest, and there must be a fourth, but I don’t remember what it was. I get confused with counting...

The diary provides the possibility of additional interaction. Another thing I use, is in each of these classes I have sort of a question of the day...and I try to grade it as if it’s a test question and I give students that sort of feedback. So, what do I get out of it? Yeah, I get an attendance count, and that’s moderately useful. I also get to know rather immediately if...it’s very easy to deceive yourself about how impressive and useful and educationally wonderful your presentation was. It’s extremely depressing to get the feedback that nobody has understood even three percent of what you talked about...This question of the day only about 30 or 40% of the students got, did it correctly. I was a bit disappointed, but it was a complicated question, and as I told them it’s a question that I would feel very easy in giving on a real exam, and I said look when I returned it today, I said “I’d rather you make the mistakes now than on a real exam. Please look at the remarks that I put on your papers and fix it up. Don’t screw up the same way next time. Find a new way.”...

The main way that I think my teaching differs now from when I started is not necessarily in the classroom, although I think I’m a lot calmer and more experienced in the classroom, and it takes something really strange to frazzle me in the classroom. I think as I’ve gotten more experienced I’ve
After our interview, Professor Greenfield reflected further on the message he wanted to send to graduate students and emailed the following to TAPtalk:

When I was in a more formative stage as a faculty member (I am now 307 years old), the diverse and severely varied responsibilities of a college faculty member seemed to pour upon me. So I would very much like to further publicize the idea (not original to me!) that people don’t need to excel in everything at all times in their careers. In my “career” as an academic I have, like everyone else, had various roles: teacher, from precalculus to advanced graduate courses, scholar (researcher, mostly, less so as a person who “appreciates” the whole art of a part of a subject), administrator (at various times I have been in charge of our undergrad program, our grad program, etc.), and mentor of students in various levels of study, from undergrad to master's to doctorate). In addition there are professional “roles” to play: review books, edit journals, organize meetings, or other organizational tasks (committee on stuff for the dean, etc.), and OF COURSE family responsibilities and other life responsibilities. Things will change in one’s career from time to time. Being “world’s best teacher” is a good thing. Being (at least) an adequate teacher, with the knowledge of techniques or methods that could be used is certainly more basic and necessary. I hope that Rutgers would help grad students to be “adequate” teachers. I emphatically mean nothing negative by the use of the word “adequate.” Such people would accept and do well by their instructional responsibilities. I also hope that Rutgers would help educate people about alternative, additional instructional methodologies which might help them in their future careers. BUT: not everyone has to do or be “everything” at all times. Maybe one is a great teacher between ages 34 and 42, after being an epochal scholar between 23 and 34, and then is a leader in their field between 43 and 47, after which “elevation” in the ranks of the university administration follows from 48 up. There are many models. As Mao Tse-tung might have said in another connection, “Let 100 flowers bloom.” It IS permissible to be a good “teacher” in spite of some professional pressures. It is also permissible to be a pretty good teacher, and, in balance, to choose yourself, to the extent possible, to determine your own tasks and excellence. A big chunk of the future can be created by you, by your interests, your stubbornness, and your own virtues and efforts. At this time, please try to teach in a good way. Please try to make your thesis an object of intellectual interest, reflecting, as much as possible, originality and effort. Then get out there and LIVE: be yourself and be a useful and interesting person.
### TAP Calendar

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