

A New Education Column for the *Notices*

Although many of us define ourselves primarily as research mathematicians, we are all of us first and foremost educators. We all teach, we all interact with students, we all direct Ph.D. theses. Teaching pays the bills, and is the most visible endeavor on our plates. The dean may have a vague idea of our scholarly presence, and perhaps a fleeting notion of what our research programs are about, but he is intensely aware of our teaching—both its quantity and its quality. He knows when it is good and effective, and he knows when it is bad. When I was chair of the math department, the dean of Arts & Sciences regularly said to me that “Teaching calculus is your main product. Attend to it.” In the same breath he sometimes reminded me that the dean at the University of Rochester fifteen years ago shut down the Mathematics Graduate Program. My dean did not say this in an attempt to be friendly

Today we are all interested in teaching issues. Sometimes this is because we have our own kids in school. Sometimes it is because we are caught up in various teaching controversies. Sometimes it is because we have a particular agenda in the teaching game. Whatever the reason, teaching is a part of life, and an important and essential one. We all have a vested interest. We all teach virtually every day of the week. We all interact with students on a regular basis. It is worthwhile to examine the fundamentals of this activity, and to endeavor to develop and improve our teaching presence.

Since the *Notices of the American Mathematical Society* is the organ of record of the Society, this periodical should be a forum for important discussion of new teaching ideas. And old ones too. Like mathematical theorems, good ideas in teaching have a life of their own. And they are worth preserving and developing. Innovative techniques in teaching deserve to be explored and examined. The uses of new hardware and software should be discussed. New ideas need to be examined and weighed.

Discussions of education issues should be incisive and on point, but they should also be lively. With this thought in mind, we wish to launch here a regular *Notices* column about education issues. This column will include K-12 education, college and university education, graduate and postgraduate education, and international educational issues. The fundamental axiom is that there are no holds barred, save those dictated by scholarly decorum. We want to hear all opinions about everything educational, expressed concisely and forcefully. A typical column will be about 1,200 words. Some columns will appear by invitation and others will be offered by the author.

We have assembled a distinguished board of editors for the education column: David Bressoud of Macalester

College, Roger Howe of Yale University, Karen King of New York University, and William McCallum of the University of Arizona. These renowned scholars and educators will help me to solicit and select columns for the *Notices*, and to edit them.

Our goal with this education column is to foster dialogue and debate. We are not looking for “feel good” pieces. We want columns that will elicit a strong reaction, and that will give rise to letters to the editor and to future columns. The development of new teaching techniques and new curricula is an ongoing process, and one that requires constant attention. Anticipating that this column will be a productive contribution to that dialogue, we seek contributions from working mathematicians, from educators, from administrators, from teachers, and from anyone with an active interest in the development of means to educate our youth.

Everyone knows that there is a teaching reform movement, and a traditionalist movement, and perhaps several variations and nuances on these two main themes. Teaching is a very personal process, and there is no “right” point of view, and no party line. My own feeling is that teaching is an art and a process, one that has been developing for at least three thousand years. Each teacher develops the craft of teaching for himself or herself, to suit the values and the techniques with which he/she is comfortable. Today we use some of the techniques (like lectures and Socratic dialogue) that have been used since the beginning, and we have many new ones as well. Group learning, self-discovery, Online learning, computer simulations, and interactive learning are just some of the ideas that are being explored today. Electronic media make possible a number of new types of texts and teaching tools. There are many aspects of teaching to consider, and several of these are new and unfamiliar. I hope that our education column will be an active forum for acquainting the mathematics community with new developments and new ideas and new perspectives. It is an exciting prospect, and I invite you to participate.

The first education column, by Herb Wilf, will appear in the June/July 2010 issue of the *Notices*.

—Steven G. Krantz
Editor, *Notices of the AMS*