

Editorial

Renuka Ravindran and K B Athreya, Editors

This edition of *Resonance* features W W Sawyer, who devoted his entire life to teaching and conveying to all the delight of mathematics (see the article by Vivek Monteiro in this issue).

India has had a long tradition of honoring its teachers – the gurus of our land. Unfortunately, today our teachers, including mathematics teachers, are not as well treated as they should be in terms of academic respect and financial compensation. Most of our schools and colleges are unable to attract talented and gifted individuals to be teachers. One may attribute this to market forces, but this may not be the whole story.

It is a well-recognized fact that our teachers have a very important role to play in the future of our children and our country. Many of us recall fondly a teacher or two from our school and college days who taught a subject so well that it opened a door for us. We feel a great debt to those teachers.

One day in the year – on September 5 (Teachers' Day) – we remember our teachers and honor them by giving them awards. They deserve a lot more than that. We need to take primary, middle and high school and college education more seriously if we want to develop better researchers and educators, especially in science subjects.

We may also want to consider opening departments of Mathematics Education in our universities. Many of our students have a fear and/or dislike of mathematics. Perhaps mathematics is not being taught well at the school level. May be, if we can expose our teachers to some good teaching methods and techniques it could make a difference.

We need to choose those who frame our school and college syllabi with care and not by some nonacademic considerations.



Email:
renrav@math.iisc.ernet.in



Email:
kba@math.iisc.ernet.in
kba@instate.edu



Our process of testing and examining students and promoting them to the next level also needs to be addressed. We have so many coaching camps and other agencies that get our students to pass various exams including the entrance to our engineering and science degree programs with high marks only to find many of them lacking in basic understanding of mathematics and other subjects.

These are issues that concern every Indian – parents, school teachers and school children and faculty at our research institutions. We need to do a lot more on these issues. Above all it is necessary to make the position of teachers in schools and colleges financially attractive and socially respectable.

The distinguished faculty members at many of our research institutions, especially in mathematics do take an active part in mathematics teaching at all levels. They also organize refresher courses for college and school teachers. The Indian Academy of Sciences does this on a regular basis. This journal *Resonance* was created to expose mathematics in particular, and science and technology in general, in interesting and exciting ways to the young students at the undergraduate level. A lot more needs to be done.

An area that needs a lot of attention is education in mathematics and science of students in rural areas. The student population in rural areas of our nation is a vast one and surely has some outstanding talent that needs nurturing. It will be a great service on the part of our faculty in advanced research institutes and well-established universities and colleges if they could be persuaded to give a part of their valuable time to the education of rural students who have so little access to good and proper education. This also applies to the underprivileged sections in our urban areas.

It is generally a well-accepted fact that being a good research mathematician and being involved in the teaching of mathematics are not mutually exclusive. It is unfortunately the case that not every good researcher is also a good teacher at the college or school levels. A good teacher certainly has a far reaching influence on the lives of our students and hence should be recognized accordingly.

Let us hope that in the coming years we as a nation do all we can to attract and retain good teachers at all levels and also address some of the issues raised above.

