In identifying the start of the third millennium as a time of challenge for those involved in mathematical education I risk the response that teaching mathematics has always been challenging. At the time of writing I was an assistant headteacher in a large comprehensive school and faced challenges posed by students on a daily basis. Young people are inherently challenging and, indeed, we encourage them to challenge, so why are we surprised when they do? If we are pleased when a student challenges the assertion that all squares are rectangles because it enables us to open up a debate in which the inherent properties of both sets of shapes can be discussed, why do we show irritation when the same young person challenges the ban on ‘hoodies’ in the school. I would argue that we should react in the same way: opening up a debate on why ‘hoodies’ are threatening to some people. That we generally do not perhaps identifies an inherent weakness in our educational system, that is, we, as teachers, are setting the agenda often at odds with the needs of the students. I would argue that the ability to challenge is a characteristic that can be perceived as either in different circumstances.

What are the challenges facing teachers of mathematics? Are we setting the agenda or are we reacting to an agenda that is set for us? Even allowing for maturity, adults can respond in similar ways to the young person in my example depending on how the challenge is viewed. If we can answer the question ‘who is setting the agenda?’ we may be able to assess whether our response will be constructive or irritating. So we, as teachers of mathematics, should be setting our own agenda for change and face the challenge constructively and positively. Indeed I would argue that we have already set ourselves the challenges yet look constantly for guidance in how to meet them.

I believe that the first challenge that we have set ourselves is to develop professionally, both collectively and as individuals. Continuing professional development is a necessary response to the educated mind’s desire not to stagnate. I am determined that this function of the Association goes from strength to strength within the framework of the National Centre for Excellence in Teaching Mathematics and its regional offshoots.

The second challenge is to increase the numbers of people entering the profession at all levels. The present shortfall is estimated at 3,400 and that is a number of great concern to teachers and parents. If this is not addressed then it will be increasingly difficult to maintain standards of mathematical education for the young people of the future.

The third challenge is to make mathematics in schools and colleges more rewarding for those involved in both its teaching and its learning. I am in no doubt that the use of ICT and associated interactive programmes is already making a contribution towards this and this must be developed.

These challenges are our challenges on our agenda. The alternative agenda is placing unnecessary pressures on those involved at all levels. At primary level national testing is putting extra pressure upon teachers and the need to attain high positions in league tables is amending curricula, not always to the benefit of educational standards. At secondary level the accusations that GCSE is too easy and not preparing students for employment are being pursued by many who have their own view of education being specifically tailored to support economic growth. At post-16 level the influence of universities in wanting to amend courses and assessment procedures is also a key issue and the move towards baccalaureates must be monitored in terms of mathematical fundamentals.

We have grown used to responding to outside pressures but setting our own challenges and meeting them in a determined and positive fashion is the most important step. If we can do that effectively then we shall not only be more confident of coping with external arguments but will actually destroy the need for many of those arguments to be made. I look forward to working with members to agree an agenda that we can take forward together. It is important, however, that it is our agenda or we could fail to engage in the debate.

In future issues of MT, David will be writing a regular ‘Update’ column. You can contact him by email at professionalofficer@atm.org.uk
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