I have received my last communication from Paul Findlow at QCA. Due to a major restructuring, Paul is leaving QCA, following his two maths colleagues. The new structure of QCA currently has no maths specialist. This comes at the same time as national reviews of all stages of the school mathematics curriculum and large-scale changes post-14. Representatives of ATM and of the Mathematical Association (MA) and the National Association for Numeracy and Mathematics in Colleges (NANAMIC) have set up meetings with Mick Waters, Director of Curriculum, and Tina Isaacs, Head of Assessment Development and Secondary Curriculum, at QCA to help maintain the profile of mathematics and to seek opportunities to support mathematics in the interim.

Collaboration is politically essential. DISS emphasises the importance of subject associations and is looking at ways to support membership of subject associations and attendance at conferences. Following the enormous success of the BCME conference in 2005, jointly organised by several associations representing mathematics, we plan to hold a joint conference in 2008 with MA and AMET (the Association for Mathematics Education Tutors).

**Recruitment and retention**

Ofsted reports that ‘the supply of mathematics teachers has declined since 1997’ (OfSTED, 2005). Almost a quarter of teachers of mathematics are non-specialists or teachers of other subjects. Shortages fall unequally across schools; some departments are well-staffed with specialists and others are struggling to maintain a single maths specialist. The effects are widespread: almost one-third of mathematics departmental heads responded that their department had experienced ‘a great deal’ of difficulty with regards to shortages of maths specialist teachers (NFER, 2006). Although recruitment appeared to improve in 2005, provisional data from AMET indicates that at May 2006 a decline was beginning to re-appear.

Mathematics teaching is experienced as particularly hard at present, due to factors including ‘prevailing negative attitudes to mathematics; additional pressures due to unfilled vacancies and/or inappropriate staffing; pressures resulting from the particularly ‘high-stakes’ nature of examination results; resentment among pupils because mathematics is compulsory and/or because of setting arrangements and tiered examinations’ (MA, 2006).

On the other hand, mathematics teachers value external courses and conferences as well as their internal support networks where mathematics is valued; it is important that these elements are nurtured by current CPD developments at the Teacher Development Agency (TDA) and the newly launched National Centre for Excellence in Teaching Mathematics. Teachers also value time to nurture their personal interest in mathematics; the best teachers of mathematics are continuing on their own mathematical journey at whatever stage.

Constraints on effective mathematics teaching need to be minimised to allow for this creativity and individual professionalism.

TDA is developing a revised career structure for teachers. Within this, ATM, MA and the Institute of Mathematics and its Applications (IMA) are working to develop Chartered Mathematics Teacher status, modelled in part on the Chartered Science Teacher. The thinking behind this is to create a culture of entitlement to CPD, to personal subject development and to on-going refreshment of practice for all teachers of mathematics.

**Pupil motivation**

At least two themes related to teacher retention recur in students’ experience and affect motivation and uptake of mathematics. These are: creativity or lack of it, and constraints imposed on teachers, for example, by national curriculum assessment and league tables.

There is continued lack of engagement and motivation in mathematics amongst many key stage 4 pupils and this affects take up of maths post-16. There is a need to revitalise mathematics teaching in key stage 4. As part of this, pupils’ capacities to work independently of the teacher and to work collaboratively with others need to be developed (OfSTED, 2005).

Pupils learn not only what they are taught – they learn from the examples that are used and the ways in which maths is taught.

QCA has invited MA and ATM to report examples of ill effects of assessment and league tables; members of both associations are arguing for removal of league tables to allow pupil motivation to improve. In the meantime, a national study is being undertaken to prepare a strategy to improve uptake of mathematics-related courses in higher education (HEFCE).

Mathematics is a subject to which our members are fully committed. It is currently under threat both as a school subject and as a subject in higher education. Members of ATM can make their views and experiences known within the association, and the association will continue clearly to express those views to government at all levels.

Sue Johnston-Wilder is Chair of ATM.

**References**


HEFCE www.moremathsgrads.org.uk


National Centre for Excellence in Teaching Mathematics (NCETM) www.ncetm.org.uk/
Membership of the ATM will help you through

Now, this bit is important - you must read this

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- A network of mathematics educators around the United Kingdom to share good practice or ask advice.
- Active campaigning. The ATM campaigns at all levels towards: encouraging increased understanding and enjoyment of mathematics; encouraging increased understanding of how people learn mathematics; encouraging the sharing and evaluation of teaching and learning strategies and practices; promoting the exploration of new ideas and possibilities and initiating and contributing to discussion of and developments in mathematics education at all levels.
- Representation on national bodies helping to formulate policy in mathematics education.
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