

Shortage of Maths Teachers - What Progress?

This was the title of the day conference on 6 January 2003, organised by the Centre for Mathematics Education at the Open University. You can read more about the proceedings on mcs.open.ac.uk/cme.

John Mason opened the conference with his mantra:

*An un-inspired and un-supported teacher cannot be expected to inspire and support learners.
An inspired but un-supported teacher burns out and leaves.*

Shortage of maths teachers

According to John Howson in his presentation, the 'official' number of maths teacher vacancies in England is about 400. But, according to a survey of 228 secondary schools from 22 different LEAs, carried out by NAMA, the OU and King's College London, about 25% of the 1571 maths teachers in these schools have weak or no qualifications in maths. These teachers are responsible for 15% of the maths lessons taught in these schools. If you extrapolate from these results and assume that teachers with weak or no qualifications in maths are effectively a maths teacher 'vacancy' then an estimate of the shortage of maths teachers would be almost ten times the 'official' figure of 400.

ATM works to inspire and support teachers and we need to find ways of reaching more maths teachers.

Why do teachers leave?

The results of a very large survey of all teachers, carried out by the GTC and announced the day after the OU conference, confirmed the results of a small-scale survey carried out by Laurinda Brown and Jan Winter from the University of Bristol. The most commonly given reason by teachers for leaving or wanting to leave the profession is the workload resulting from government initiatives. Other reasons given by over 30% of the respondents in the GTC survey were the target-driven culture and the behaviour of pupils.

What can ATM do about this? Maybe one thing it can do through its CPD programme and conferences is help teachers cope with the initiatives by discussing how they can incorporate them into current practice instead of changing everything. One of the teachers interviewed by Laurinda and Jan, who has not left the profession, says he copes by 'not taking much notice of new, ill-thought-out initiatives'. Is it a contradiction that one of the reasons I stayed in the classroom for so many years was that by doing so I had the opportunity to show initiative and to innovate? No, because it was I and not the government who made the decisions about what needed changing; I was still working within a national framework, but it was one what was much more flexible than what we now have. So I do not think teachers dislike initiatives or innovation. They just need to be more in control.

ATM takes every opportunity to point out to the QCA, the DfES and the government that teachers need more autonomy and flexibility with regard to how they teach.

Why do teachers stay?

The research of Laurinda and Jan concentrated on why teachers stay. After all, according to the GTC survey, two-thirds of all teachers do intend to stay in teaching. The overriding reason Laurinda and Jan found for this, which is again in line with the GTC survey, is that teachers enjoy working with pupils. Teachers also spoke of job satisfaction 'when students make progress or understand and enjoy

lessons' and of enjoying being creative by 'getting pupils excited by maths'. Interestingly, the GTC survey did not find that 'love of my subject' was a significant factor in motivating teachers. The title of the paper by Laurinda and Jan was 'Beyond the breaking waves'. They used the metaphor of spending the first few years of life as a teacher in the breaking waves on the sea's edge, which was stimulating but exhausting, and if you were to survive you had to find a way of getting out to the calmer waters beyond. One way teachers do this is to accept that they cannot do everything and that they are bound to fail some of their pupils some of the time. But also, the job does get easier the longer you do it: you have a large bank of familiar activities in your head, which you know work for you; you get quicker at marking; and when you encounter misbehaviour by pupils you have usually dealt with something like it before...

ATM can help teachers get through the breaking waves by bringing together groups of teachers, through conferences and branches, to share and discuss strategies which have proved helpful.

The role of CPD

According to the Guardian, the GTC survey found that teachers who are given the opportunity for CPD 'are much more likely to want to stay in teaching'. One of the problems for maths teachers at the moment is that nearly all their training entitlement is taken up by government-imposed training for the National Numeracy Strategy and the Key Stage 3 Framework. What teachers prefer is a flexible CPD programme that meets their particular needs. The new flexible PGCE programmes being offered by the OU and Sheffield Hallam University are proving popular, particularly with mature students, precisely because they are designed to meet individual training needs. The first report from the Advisory Committee on Mathematics Education (ACME) is about CPD. This report strongly recommends that professional development of maths teachers should be treated as a special case by the government and given additional resources. You can find out more about the report on www.acme-uk.org.

ATM offers flexible CPD to meet your needs. [Email our Professional Officer](#).

Classroom assistants

The last presentation of the conference was by Chris Hopkins. She suggested that maybe every maths department should have two assistants. One could help with preparing and filing resources and could be a PA to the head of department. The other would be trained to be a real support in the maths classroom by, for example, working with small groups of pupils. Chris's vision was that this would help teachers to cope better with their workloads.

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Additional benefits

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