

Retaining Good Mathematics Teachers in Schools and Colleges

Some Case Studies of Good Mathematics Departments

Sidney Stringer School, Coventry

We seem to have been successful in retaining our teachers - in fact we haven't lost one (in terms of leaving the profession) in the 10 years that I've been at Sidney Stringer School in Coventry! There is certainly not one thing that I could put my finger on, that has made us so successful at keeping our teachers, but some ideas might include:

Teachers are trusted completely to do their job. This is shown through:

- ensuring that all teachers are given a variety of ages and abilities to teach – everybody in the department teaches a set 1 or 2 and similarly everybody teaches a lower ability group;
- giving teachers “ownership” of their classes, by giving them “groups for life” (they pick up a class in year 7 and take them through to year 11);
- all staff who wish to have the opportunity of teaching A level;
- staff are supported with discipline.

Staff share ideas, resources and progress of groups and individual students through an informal lunchtime meeting each week. This means that:

- every teacher has an overview of where other teachers have got within the scheme of work;
- difficulties are discussed (teaching or behaviour);
- good ideas and resources, ICT activities, etc are shared and discussed;
- staff share mathematical puzzles (at a variety of levels) and talk about mathematics;
- staff are encouraged and given opportunities to watch each other teach. This year we are working on a “coaching” project.

Exam results are not the dominant force in our teaching:

- the scheme of work includes topics outside the NC/NNS (eg, Logic, Binary Numbers, Critical Path Analysis, Networks);
- we all believe it is more important to ensure that students understand what they are doing rather than simply being able to do it.

Classrooms and teachers have proper resources:

- all students have a text book that they take home;
- all classrooms have interactive whiteboards;
- all teachers have laptops;
- there is an ample supply of stationery.

Steve Edwards

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Bacon's College, Rotherhithe, London

At Bacon's College properly resourced maths classrooms have:

- Interactive white boards with key stage specific differentiated software;
- Wide variety of texts both traditional and modern again with differentiated work for all year groups;
- Air-conditioned classrooms with plants and displays of pupils work;
- Classrooms all in one block with direct access to teacher's offices;
- Good selection of practical resources such as 3D shapes and scales, etc.

Jane H. Barr

Archbishop Lanfranc School, Croydon

At the Archbishop Lanfranc School in Croydon the Mathematics Department place a strong emphasis on Teacher training and Professional Development.

Teachers are encouraged to get involved in long-term subject specific programmes. Two teachers have already been on the MEI 'Teaching Advanced Mathematics' course and another two have been involved with the London Mathematics Centre. They bring back expertise, ideas and resources which are then disseminated through the department. The impact on teaching and learning is regularly evaluated.

The school allocates several sessions throughout the year for 'Standardisation Meetings'. This is purely for subject development within the department.

At Department meetings, the first item on the agenda is usually to share good practice. This is subject specific and looks at issues arising from the day to day teaching of mathematics e.g. the best way to introduce a topic, a new approach, a successful lesson, misconceptions etc. Administrative matters, unless they are major, are dealt with via pigeon holes or during non-contact times.

The department is also kept abreast with recent research in mathematics education. Publications from the Mathematical Association are made available to all staff.

Hassan Conteh

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Haverstock School, Camden

At Haverstock School, the mathematics department meetings are always focussed on development. New ideas, puzzles and teaching methods are explored. Challenging lessons, especially those containing ICT are trialled. Staff are given time to develop and add new ideas to the Schemes of Work. Administration matters are dealt with by e-mail communications

Byron Sheffield

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Weston Road High School, Stafford

At Weston Road High School the mathematics department for which I work seem to operate by having one long continuous meeting. Everybody shares good practice (and forgettable experiences), new approaches are readily adopted and the burden of administrative tasks is shared. We support one another as and when we can, rather than existing as a hierarchical structure. The students respond to this approach which makes maths one of the most popular and also successful curriculum areas.

Neil Everill

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Cheadle Hulme High School

Cheadle Hulme High School's mathematics department has a continual focus on developing good practice. Department meetings always start with two different members of the department, one talking about pedagogy and one talking about good practice. We often plan additional voluntary meetings which address admin issues as we view discussing good practice as a priority. We also encourage colleagues to observe each other and to share these observations at department meetings. We also regularly welcome trainees and find that we can learn from their fresh ideas as well as them learning from us.

Caroline Salisbury

Marple Hall School, Stockport

At Marple Hall School all teachers in the mathematics department are positively encouraged to identify their training needs and undertake relevant CPD. Subsequently they are then expected to disseminate this to their department and work with the HoD to include positive aspects in the department scheme of work. For example, as a department we organise our own training day at Bredbury Hall and this gives all members of the department an opportunity to disseminate ideas learnt and further developed. The HoD receives a list termly from the LEA on courses provided by the authority. These are published on the board in the mathematics staff room and members of staff can sign next to the courses they would like to attend. NQTs have specific courses provided by the authority that staff have the opportunity to attend.

Below is a list of staff development courses members of the department have attended in the last academic year.

MATHS DEPARTMENT PROFESSIONAL DEVELOPMENT TRAINING 05 – 06

Date	Title of course
Nov 05	Secondary Maths Conference
Dec 05	SSAT- Enhancing mathematics curriculum- new assessment grid
Dec 05	Edexcel New GCSE Specifications and what Edexcel have to offer
Feb 06	LMT – Use of Jigsaw and sorting
Feb 05/ Mar & Jun 06	HLTA Maths Specialist Mentor training
March 06	GCSE Maths for the non-specialist
March 06	Subject leader LEA training- Algebra Activities and sort cards for KS3 and KS4
March 06	Stockport LEA NQT Mathematics – producing resources, sharing ideas, extra support
March 06	Bredbury Hall Training Day. All day
March 06	Making GCSE Maths more interesting*
March 06	Making the best use of e learning*
March 06	Inter LEA residential Maths conference
March 06	AST Conference – Learning to Learn*
April 06	Pedagogy & Practice – Secondary National Strategy*
May 06	Stockport LEA NQT Mathematics – producing resources, sharing ideas, extra support
May 06	Every Child Matters – SEN and how to cater for them in the maths classroom
June 06	Subject Leader training: New GCSE Syllabus, AFL
June 06	LMT Kagan Maths
July 06	Adult Numeracy Certificate
Ongoing	Teaching Advanced Mathematics - MMU

*Paid by LEA not school

Julie Sutcliffe

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The Mathematical Association
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