



ANNUAL REPORT 2007-2008

MATHEMATICAL ASSOCIATION



supporting mathematics in education

President's Report

Sometime in September 2005, while standing looking out over a choppy North Sea from a conference centre in Aberdeen, I picked up a crackly message on my mobile phone. "We'd like you to be President of the Maths Association, I wonder if you'd call me back." At least, that's what I thought the message said, but I couldn't quite believe it.

"You do know that I don't have a maths degree, don't you?", I said when I returned the call. "That's not a barrier", came the cheerful response.

I needed a few days to think about it. Unlike most of my predecessors in the MA, I was not steeped in the Association's history, and wanted to be sure I could meet whatever expectations there might be of me. On reflection, I decided that my relative detachment from the MA until that point might prove to be an advantage. The benefit of being a newcomer is that you can ask naïve questions: What is the MA for? Why do people join? I'll come back to those questions at the end.

And perhaps my ambiguous status as a 'mathematician' who doesn't have a maths degree has been useful too, if it has helped to break down the artificial distinction between mathematicians and non-mathematicians. The fact is that we are all on a continuum. I believe it's not a case of 'them and us', but of 'all of us'.

It's probably no coincidence that neither of my main sources of mathematical inspiration as a teenager had a maths degree either. My generation was lucky to grow up at a time when Johnny Ball had a regular slot on prime time children's television. He made the idea that maths could be an engaging mainstream topic a perfectly normal one. (Thank goodness they hadn't then invented those dismal expressions "sad" and "geeky", two words that these days have become a knee-jerk response when maths is referred to in popular culture.)

Later, in the sixth form, I discovered the monthly column in *Scientific American*, written by Martin Gardner. I always assumed that Gardner had a formal maths training to enable him to write with such depth and authority on so many diverse topics. It was much later that I discovered his degree was in philosophy and that much of his maths was self taught. He was, and still is, one of my heroes.

Gardner's *Recreational Maths* column turned what was already a strong but casual interest into something of an obsession. I read every column, and bought every one of his books, and I'd spend whole weekends testing out the ideas that I read about. These days it would be called enrichment and what I was doing in my spare time would be described as investigations. For me it was just maths,



and maths that I found even more interesting than the stuff we were doing at school.

Despite the fact that maths was my strongest subject at school, I never seriously considered reading it at university. What I'd seen of university maths looked very abstract, and my interest even then was in mathematical modelling of everyday phenomena. I flirted with economics, but settled on engineering at Cambridge. (So did Carol Vorderman, I sheepishly point out.)

After graduating, I then lost all formal contact with maths education for over ten years, as I opted for a career in consultancy. Maths, however, continued to be an important part of what I did. Indeed, the ability to write mathematical models enabled me to get involved with some very high profile assignments, helping to influence the decisions in organisations like Marks & Spencer and the Post Office. It was interesting stuff.

I then had an incredibly lucky break. As a life-long cricket lover, I received out of the blue a letter from the celebrated former England captain Ted Dexter, asking me to help him devise a ranking system for international cricketers. He was asking me to combine my two great interests, maths and cricket, in one project. How could I refuse?

If I had to pick the most significant moment of my life (apart from the day I met my future wife), it would be the day that I received the Dexter letter, because the cricket rankings went on to gain international fame, and opened up opportunities I could never have dreamed of.

Ultimately it enabled me to leave formal employment and set up on my own to do the things I really cared about. I wrote a book about cricket (entitled 'What is a googly?') and thanks to that, I was approached to write a book that evolved to become 'Why do buses come in threes?'. Suddenly I started to receive enquiries from schools asking if I could come in to give talks for disaffected pupils, to show them that maths might actually be relevant to something.

My return to the world of schools and maths was an eye-opener. It wasn't just pupils that seemed to have become disaffected by maths. Many of the teachers I met also seemed to have lost touch with the sort of maths that I had thrived on, "recreational" maths that has nothing to do with ticking curriculum boxes or passing exams.

For the last ten years, it's the recreational, non-curricular side of maths that I have returned to, though I believe that in the perfect maths lesson, the two worlds should blend together as one. It's all maths!

Through exposure to mixed ability audiences - including the occasional bottom set Year 10s - I have learned the hard way the sort of mathematical ideas that can appeal to everybody, regardless of age or mathematical ability. And without question, the aspect of maths that has the widest appeal is that which challenges intuition. In a word, people like surprises. That might be a surprise in the form of a mathematical card trick, a game with an ingenious short cut, or a seemingly impossible puzzle with a simple and elegant solution. I'm convinced that this is part of the secret of how the beauty of maths can be shared with a wider audience, including those who regard themselves as "non-mathematicians".

One other thing really struck me as I became drawn into the world of maths education. That was the huge number of acronymed bodies that were representing the subject. The MA, ATM, NANAMIC, LMS, IMA...to name but a few. Each has its own different slant and audience, but to the maths teacher - let alone the complete outsider - this conveys a strong impression of fragmentation.

The truth, as I've discovered in the last year, is that there is an increasing amount of collaboration between these bodies that goes on behind the scenes, and that level of collaboration - particularly between the MA and the ATM - must continue to grow. However, my year as President has helped me to understand the MA's distinct and precious role in the maths world.

I've been to countless 'maths' conferences over the last year or so. I've been bombarded with information about Key Stages and curricula and functional maths. I've been acronymed till I'm blue in the face. I'm sure this is all important stuff. But what I don't hear enough of is maths itself: problems that surprise, and ideas that make me think and which push my own boundaries of understanding.

It seems to me that this sort of maths is at the heart of the MA. Why would somebody join? Because to be a

member is to join a community that has maths at its first love, and in which a conversation is as likely to be about a mathematical problem as about an educational policy. Sometimes, in the relentless quest to tick boxes and meet targets, I think that real maths is forgotten. In the MA, it never is. It has been an honour to spend a year at the heart of this community.

Rob Eastaway – President

Chair's Report from Council

I ended last year's report with some important observations and a clear set of priorities. These were based on income, expenditure and membership. They are, of course, inextricably linked and difficult to manage and forecast. But let's look at the way that Council took up these challenges and the many, many other issues with which we engaged.

And so to the June Council meeting. It was a pleasure to welcome two new Council members; Lynne McClure who brings a deep understanding of primary education together with her very successful experience of editing Primary Mathematics and Dr Catherine Ogden who brings the perspective of the secondary classroom teacher to our deliberations. Council had already decided that the first substantive item on its agenda should deal with finance. This reflects the importance of this item and the need to make this a priority. The Treasurer presented a report on our finances that had been developed in response to a meeting of Standing Committee. It did not make pleasant reading. There were 3 key points that this report made. First that our annual deficit continued to grow at an unsustainable rate; second that 90% of this deficit was incurred by Conference and Professional Development, and finally there was a worrying loss of membership income. Against this background, we determined that Professional Development must be turned round and that each of its activities must make a positive contribution not only to our offer to members but in financial terms as well. As for the conference in 2007, that was now a matter of history. The conference had also made a loss, but it was hoped that it would be on a smaller scale than previous years. As for the 2008 conference we agreed that the venue for the joint conference should again be Keele following the withdrawal by Liverpool Hope of its offer to host the conference.

But it was not all gloom. It was also noted that the Primary Mathematics Challenge had continued to grow its very profitable contribution to our activities - both in the way that it promotes and celebrates mathematics in primary schools and in the growing profits it delivers.

It was also noted that Publications had achieved a very high level of profits, as well as projecting a much more professional image through the newly designed covers and their consistent branding.

So we believed that our tasks for 2007 was threefold: first to seek to eradicate losses on Professional Development; to ensure that future conferences were profitable, and to look seriously at the membership issue.

We moved on to consider possible candidates for nomination as President elect for the year 2009/10. In the event, 4 such candidates were proposed.

As always Teaching Committee and the Curriculum Policy Group had been the driving force behind many initiatives: for example making sure that the Key Stage 3 review incorporated our views about the curriculum and the programmes of study; seeking to make clear our concerns

about the introduction of assessment for Functional Skills, backed up by an MA position paper; monitoring the pathways work, and finally concern with the pilots for AS and A levels involving modifying the balance between modules and the consequent grading issues. I informed Council about a number of developments under consideration by the DfES. Some time ago Lord Adonis said that he believed that membership of a subject association was critical in the professional development of teachers. This had led to three major initiatives, each designed to use the promised DfES funding. The first is a website that has been promoted to all Secondary schools and colleges, <http://www.subjectassociation.org.uk/> This was a relatively simple and obvious project. Despite this, it offers good potential by offering access to individual subject association websites and promoting membership of a professional association.

The second initiative is a new body to be called the Council for Subject Associations (CfSA). This has a single purpose: to promote membership of a professional association to all teachers and institutions. Hence, it includes subject specialists in secondary schools and colleges just as much as primary schools looking for membership and support across a range of subjects. The CfSA task would be to develop and launch a range of communication initiatives to drive membership of associations in all subjects.

The third initiative is in support of the primary strand of this initiative. Primary teachers and schools have been reluctant to become members of associations, dedicated as they are to a single subject. A bold initiative is planned. This would ultimately aim to offer primary schools membership of all subject associations through a single subscription. It begins with a magazine, that will be sent free to all schools, containing subject resources across all subjects backed up with individual subject association information.

Council welcomed these exciting initiatives. It also registered a number of reservations; the first concerned with the creation of yet one more mathematical body. It was also concerned that the financial models adopted might not be sustainable once the initial DfES funding was complete.

The final item on our agenda concerned the flat at HQ. It needed a complete refurbishment before it could be rented out again. The cost involved was of the order of £10K; against this there was a rental income of some £5K per year. Council decided that investing now for the future was the right course of action.

And so to our September meeting. The Treasurer made a report on the financial position, setting out an account of the income and expenditure up to the end of August. He highlighted a number of points: first that the likely loss on the 2007 conference would be in the order of £17K, rather more than in 2006. It underlined the need for a return to profitable conferences or more radical action. It was also agreed that joint conferences were likely to be profitable. Second, that there had already been an improvement in Professional Development, with a current surplus balance. The trick now would be to sustain this through the year. It was also noted that while Editorial Board expenditure was at the heart of the membership offer, there might be possible savings to be made in this area. Next he reported that the forthcoming Stirling one day conference, managed by Bill Richardson, had sold out and would likely result in a profit of some £5K. Finally, he said that it had not been

possible to deduce from membership income how that was performing in the current period.

While all income and expenditure had been very closely monitored this year, he did not have year on year period comparisons on which to draw. These would be available next year.

We moved on to consider the four candidates that had been proposed as President for 2009/10. The matter was then put to a ballot. I'm delighted to say that Jane Imrie - also a Member of Council - was duly elected as the nomination of Council and Jane was delighted to accept this nomination.

The Curriculum Policy Group reported that the MA had not been represented at a Secondary National Strategy meeting because Capita were not prepared to pay school supply cover. Council resolved that it should take up this important matter directly with the Secretary of State and the Chief Executive Officer of Capita. If the voice of classroom teachers cannot be heard during such consultations then the decisions and policies would suffer in consequence.

There was also an ongoing joint dialogue between the MA, ATM and NANAMIC with QCA in which the aspiration was that issues could be discussed - in confidence - before they were set in stone through public announcements. This has proved an effective channel of communication and some influence at the level of policy. Considerable concern was expressed over the published new programme of study for Key Stage 3 mathematics. Despite assurances from the QCA, doubts remained about the stated aim not to change the existing curriculum content. History has shown that a lapse of vigilance on our part, would surely come back to bite us.

The ongoing process of the MA becoming a Company Limited by Guarantee has almost reached its conclusion. One of the final steps was that each member of Council should immediately become a Director of the company.

Arrangements for the joint 2008 conference were discussed; it was agreed that sponsorship should be sought to fund bursaries for teachers. The dates chosen were the compromise dictated by the very early date of Easter and the spread of school holidays in consequence. It was decided that the MA Presidential address should appear in the programme as an open plenary session. The support of the National Centre (NCETM) in promoting the conference through its newsletters, mail-shots and websites was also acknowledged. We also had an update on possible venues for the 2009 conference with Robinson College in Cambridge being a favourite.

HQ reported that there had been a failure of the server running the office network. New equipment had been quickly installed at a cost of £3.5K; this now had triple protection through multiple hard drives to eliminate a repeat problem and all the associated trauma. On a more positive note the refurbishment of the flat was now almost complete on schedule and to budget - and arrangements were in place to appoint an Estate Agent to manage the letting.

A report from the Publicity and Membership Committee was considered. The background was that there had been a 10% overall fall in membership - personal and institutional together. Marketing campaigns to PGCE students had not delivered new members, and since other marketing campaigns had been suspended, there was no stream of new members coming in to offset those members leaving. It was felt that marketing campaigns helped to bring in

both new members and to sustain the existing membership. It was agreed that the initiatives should be reinstated, and a mailshot was scheduled for the beginning of the new school year.

A report from the Publications Committee was also considered. This focused on stock and stock control. It led to an exciting suggestion for production in the future - the idea of implementing 'print-on-demand'. In this model new titles are printed in small quantities (as few as 10 copies) with little financial penalty; this should be compared with the current procedure in which print runs for new titles are often in 500 or even a 1000 copies. Council agreed that this should be investigated.

The Professional Development Committee reported on the contracts and projects it was engaged in. It was stressed that the prime objective was to monitor financial performance and to ensure a level of profit on each. Considerable discussion ensued on the idea of extending the one day Stirling conference to other areas. It was felt that a paid co-ordinator should be identified and a target region selected.

And so to the December meeting. Again financial matters were the first item on the agenda. The Treasurer reported that on the basis of figures up to the end of November, 2007 the likely loss would be some £85K. Of particular significance was an alarming drop in subscription income - down from £250K in 2006 to £193K for the current year. This was despite a turn around in Professional Development but compounded by the previously incurred Conference loss. Council debated the figures and the reasons behind them for some time.

The Treasurer also presented a proposed budget for 2008. This too represented a negative budget. Council decided that it could not accept this budget and referred the matter to Standing Committee to examine the figures in detail and to return with a balanced budget that was achievable.

A proposal had been made at the September Council that Council should consider enlarging Standing Committee. The concern behind this proposal was that with its very small membership (President, Chair of Council, Treasurer, Secretary and one Member without Office) it might find, because of absence, that it couldn't function properly. Also of concern was the desire to utilise the experience of an incoming President as well as continue initiatives championed by an outgoing President. Standing Committee therefore proposed to Council that for a trial period of 3 years, the Immediate Past President should become a member of Standing Committee. Council agreed the proposal.

The membership of Council was also discussed. It was noted that Martin Bailey had indicated he wished to stand down and that Nick Lord and Ruth Swinton were now timed out as Members without Office. Some suggestions for their replacement were discussed, and a shortlist agreed. They would be contacted to seek their approval to be nominated for election at this AGM. Susie Jamieson was proposed and agreed as Council's nomination for Chair of the Conferences Committee.

The idea that the Stirling one day conference should be the model for similar events in other regions had resulted in a planned event in February for the North of England organised and managed by Mary Ledwick. The event had the promotional and financial backing of NCETM and STEMNET and this seemed an excellent way to road test such a model.

There was an excellent presentation by Robert Barbour on plans for the 2009 Conference. Highlights included a special display and access to the mathematical books of Trinity College, and a special session on the MA's Wittgenstein material currently housed at Trinity. Robert also planned to work closely with Teaching Committee to devise a programme that had multiple strands to appeal to all potential conference delegates.

As for the 2008 Conference, Council was delighted that £5K of sponsorship had been secured from Ove Arup. This would be used to fund reductions in costs for delegates.

Teaching Committee presented the results of its own deliberations and those of others to its position paper on awarding bodies for mathematics. It recommended that a single body should replace the current three competing bodies. With some final changes, Council agreed this paper which is now posted on the web.

The Chair of the Editorial Board presented a report in response to a request from Standing Committee to review the frequency of journals and the viability of others. He reported a number of initiatives that he was investigating. First changes to the frequency of MiS which he believed might result in savings but would impact negatively on advertising income. He was also exploring with the ATM the idea of making Primary Mathematics a joint publication. Also under consideration was the idea of publishing some journals such as MA News, Mathematical Pie on the web. Finally, he was looking critically at other journals' long term viability and how advertising across all journals could be boosted. Standing Committee will now have to decide how such ideas can be progressed.

A report from the Chair of Professional Development was also considered. This was to be a background/agenda paper for a forthcoming meeting in January seeking to reconvene a committee that shapes policy and approves projects in this important area. Council had much to contribute and added important revisions to the document. The Chair of Publicity and Membership tabled a report with some welcome news. The 'back to school' mailshot had already recruited 85 new members against a background of a breakeven of 35 members - so a profitable initiative in its first year with longer terms benefits as well. She also reported on the plans for 2008 which would include two secondary mailshots, one in February, and one again in September. These would also carry copies of the Publications catalogue to seek additional revenue on these items. In addition two primary mailshots aimed at the largest 10,000 schools would go out. Overall the target was to recruit at least 300 members during the year.

The March meeting began with a tribute to two honorary members who had recently died. John Thurston who many will remember and W. W. Sawyer whose books all will have read. There was also the news that Doug French had resigned as Chair of Teaching Committee because he felt unwilling to continue to serve on Council.

We paid tribute to the departing members of Council - Martin Bailey, Doug French, Nick Lord and Ruth Swinton. Each has given much to the Association in time, experience and judgement and on your behalf I want to thank them for their service.

The nominations for new members of Council had now closed - following a call in MA News - and the following were unopposed, Susie Jamieson as Chair of the Conferences Committee; Mundher Adhami,

David Crawford, Tony Gardiner and Geoff Tennant as Members without Office. The post of Chair of Teaching Committee remained open because it had not been possible to nominate a replacement for Doug French once the nominations closed. Given the arrival of new members of Council, we also took the opportunity to review formal documents on the procedures for Council business, and also one concerned with members' behaviour.

We moved on to the financial situation. The Treasurer reported that the actual 2007 loss was an extremely disappointing £113K. This is the net movement in our funds, but the actual profit and loss - the significant figure - is £75K. This is the loss on our trading account. Against this bleak background, and following discussions at Standing Committee, he went on to propose that Council should accept the 2008 budget now proposed, consider and agree new subscription costs to be implemented this September and ask Standing Committee for ways of boosting income and reducing costs in subsequent years.

The 2008 budget proposed was a balanced but achievable plan that takes account of actual subscription income, one-off expenditure, new income and some reductions in expenditure. Council agreed the 2008 budget and also approved a 10% increase in personal membership and 20% in institutional membership subscriptions. It awaits Standing Committee's longer term proposals for discussion in June.

There was some good news. First that advertising in the journals was well ahead of target. The target for MiS in 2008 was £12K, but already £14K had been secured. Cross promotion with the web, and the return of Janet Powell had meant that this area was performing very well. Second, that the 2008 Conference was fully booked. This really was a good achievement given the tensions between school holidays and timing. Finally the 'back to school' membership mailshot had recruited 120 members. This bodes well for the imminent follow-up mailshots and those planned for later in the year. It makes the target 300 members very achievable.

Council were updated on the development of the Council for Subject Associations (CfSA). This had now commenced work with the appointment of a Chief Executive and Communication manager together with an interim board. Their task would be to develop and launch a range of communication initiatives to boost membership of associations in all subjects. A first initiative was the Primary project. This would ultimately aim to offer primary schools membership of all subject associations through a single subscription. It begins with a magazine, that will be sent free to all schools, containing subject resources across all subjects backed up with individual subject association information. The first issue of the magazine will be launched at the beginning of the summer term and is edited by Lynne McClure who, of course, edits our own Primary Mathematics. This will be repeated several times, and will build up to the launch of the joint membership through a single subscription.

I think 2007 has exposed quite how difficult it is to manage our income, subject as it is to external forces beyond our control. Evidence suggests that our problems are also being experienced by all subject associations. We have begun to tackle this aggressively and we also have the benefits of the campaign for membership promised by the CfSA.

We will tackle the other side of the coin - our expenditure - looking critically at those items where we can implement

changes that bring savings and even at withdrawing from areas where we believe there is no reasonable hope of improvement. But the other challenge is making the Association appealing to all teachers of mathematics in all sectors of education. Our current membership represents a diminishing and extremely small fraction of all practitioners; we haven't even begun to think about the new sectors emerging such as Teaching Assistants. We must not only make membership appealing and instinctive in its own right but we must offer members an attractive portfolio of opportunities to build their careers and widen their professional horizons. In total, that's a tall order but one that Council is eager to tackle.

Barry Lewis (Chair of Council)

Branches Committee

This MA committee has met on two occasions since June 2007.

The first meeting was the annual Branches Day at Leicester HQ last October. The morning session was given over to a meeting of Branches Committee and included formal reports from officers of the committee together with a review of nominations and appointments to the committee for 2008-09. In the afternoon there was a very interesting session incorporating the submission and exchange of branch programmes from all those attending as Branch representatives. A discussion paper related to possible future strategies for the MA branch network was presented to the group and this was discussed at some length.

The second meeting took place at the end of the MA/ATM joint Conference at the University of Keele in April. There were formal reports from officers of the committee and the minutes of this meeting will shortly be sent to all Branch Secretaries and Local Representatives as listed towards the back of MA News.

Branch representatives have once again been encouraged to provide updates for the Branches and Local Activities section of the MA website. There is now a link to that section from the NCETM portal. Highlights of branch activity have also been included in the MA News journal.

The fairly new Joint MA/ATM Marches Branch has now met three times. There was an evening meeting organised in Manchester at the end of November and MA members in the wider area were able to attend. Further to this there have been further discussions, on a face to face basis, with colleagues from Birmingham, Cambridge and the Isle of Wight about the continued possibility of new branches or joint branches coming to fruition in those areas. The next Branches Day is arranged for Saturday 25 October 2008 at Leicester HQ starting at 11am.

Keith Cadman (Chair of Branches)

Conference Committee

Joined up Mathematics

So how is it that I find myself on the same train, heading for the same destination, one year on? That's a long story but an essential part of the annual conference held this year at Keele.

It all started at last year's conference - also held in Keele, as you now know. There we received the disturbing news that our plans for a joint MA, ATM, NANAMIC and AMET conference in Liverpool (the 2008 city of Culture) had to be abandoned because Liverpool Hope University withdrew their offer to host it. I shall forbear comment on the aptness of the name. With an exceptionally early Easter, and a wide span of school holidays we had enough worries without this additional burden. But Keele came to the rescue - good food and accommodation; particularly efficient and helpful staff; superb conference facilities in a single location - this is what we enjoyed back in 2007. We quickly persuaded our partners that Keele would be good for 2008.

So here I am, heading once more towards Keele with the prospect of exciting lectures, captivating sessions and the anticipation of greeting old friends and making new ones. I was not disappointed - and neither I think was anybody else. Word must have got out because conference bookings had to be closed some weeks before the conference itself. We had an imposed limit of 350 delegates (due to capacity constraints) and had to endure some last minute pleas from disappointed delegates. The waiting list grew long - as did the faces of those on it.

On Wednesday the conference got off to a flying start with a thoughtful and timely lecture by Anne Watson about fragments and coherence - the fragmentation of

Overheard:

"Life is complex - it has both real and imaginary parts"

mathematics that comes about as the result of an endless torrent of policies and initiatives.

But as mathematicians early discovered in the twentieth century - there is considerable order in chaos when you view it at the right magnification. Anne showed that coherence can be imposed on this jumble by concentrating on the essential structures and relationships that underpin mathematics - and ignoring the 'noise' that surrounds the pure signal within. She illustrated her thoughts with classroom activities that were jewels of opportunity and precision.

And so to the first of just over 100 sessions - the specialist talks, workshops and lectures dedicated to a particular mathematical topic or aspect of teaching and learning. Whether your fancy was to some three-dimensional geometry or a desire to know how the emerging concept of functional maths is developing, there was something for everybody. Often too much - this was an occasion among many, when we were spoilt for choice.

Just before dinner, Sir Peter Williams came to tell us about the findings in his Review of mathematics in primary and early years - which would be presented to ministers in the



next few weeks. He also wanted the opportunity to talk to teachers and engage them in responses to his report before it is finalised.

Sir Peter is an old friend having chaired ACME for five years and also the witty but perceptive after dinner speaker at last year's conference. Sir Peter clearly showed his commitment and determination to 'get it right' by the number of schools he had visited and the teachers, pupils and parents he had talked to.

Sir Peter Williams:

"The earliest example of intervention that I know of is the Oxford tutorial system."

The key recommendations in his report are very welcome - all primary schools should have at least one maths specialist within five years; there should also be renewed emphasis on professional development for teachers, particularly for a strengthened field force of maths consultants. Sir Peter also pointed out that these recommendations had been fully costed in the report and had been measured against likely budgets in future years. He was therefore confident that they were not simply aspirations but practical objectives.

After dinner there came the first organised social event - or as one person put it, "... the fringe events. " But what's fringe about enjoying yourself? And enjoy ourselves we did at the Mass music-making session, drawing in accomplished musicians to accompany those with - how should I put this ... ah, yes - functional skills, but unbounded enthusiasm. David Cain, the maestro, wove it all together and conducted as if nothing else mattered, and it didn't.

Thursday was a day of magic - not just in the programme but in all the breaks between. Andrew Jeffrey and Rob Eastaway put on spontaneous exhibitions of magic geared towards situations and tricks with a mathematical flavour. Some I persuaded myself I understood - but others held me in their magic. I still don't know how they were done. But like everybody else I just enjoyed the fun and engagement. I suspect many of the same tricks will now be doing serious service back in the classroom.

In the afternoon, the AGMs were held. This is the first public duty of the President of the MA and intriguingly, almost his last. Rob Eastaway took the chair with his usual mix of charm, wit and enthusiasm. There was much to let members know about the past year - what we had achieved and what problems we had encountered. As Chair of Council, I had the pleasure of letting members know about our deliberations and all the work done on their behalf by the various committees and their energetic and enthusiastic members. I also had to let them know about the worsening financial situation and the ways in which we planned to

respond. This was followed by a detailed and incisive account of our finances by Paul Harris, the Treasurer. He spelt out exactly the dangers, but also

pointed to solutions and remedial actions. Just after the meeting closed, Anne Davis approached me with a question, "Why didn't the Executive introduce themselves to the AGM?" "A good point I immediately responded. "That's exactly what you said last year" she shot back. Oh dear ...

Adam McBride:

"Saturated solution is the collective noun for problem solvers";

"... let's pause and admire the view."

But the evening brings the conference dinner. I and Paul Harris had our work cut out running the 'secret' sweepstake on the duration of the after-dinner speech. We collected the entries and then sat back with a pair of stopwatches, poised for action. Many people will have heard Mike Askew's speech when he closed the BCME conference in Warwick. He is an inspirational speaker and entertainer.

That of course is his day job, but in his spare time he manages to fit in mathematical education as a Professor at King's College in London. I said today would be magic - well here was another helping, not just in the quality of his words but in the magic of his performance and in the theatre of his astounding tricks. I can tell you that his 33 minutes and 13 seconds was brim full of humour. As was Sarah Bishop who scooped the sweepstake pot by being spot on. Friday is the day of the President's address.

Rob Eastaway took as his theme the idea of making mathematics interesting to all - at all levels of engagement.

Rob Eastaway:

FA Spokesman on a proposed 39th game

"Every team has an equal chance of being treated unfairly."

When I say interesting, I do so deliberately. Rob pointed out the ineptness of the 'Maths is Fun' syndrome, so

readily trotted out, but rarely delivered. Now substitute the word train-spotting for maths!

But not so here. Fibonacci numbers, knockout tournaments, jig-saws, musical melodies, probability, football and his beloved cricket. All were beautifully presented and delivered ... gems one and all.

Later on there were open meetings of Teaching Committee - two parallel sessions one devoted to primary and the other to 11-16/Post 16. They preceded a joined-up session to discuss common issues. If you want to know what's going on - in the classroom, in public organisations such as QCA and the like, in the development of government policy - this is the place to be.

The evening was rounded off by a Ceilidh. What is a ceilidh? The band's own website puts it rather well: "*It's the most fun you can have with your clothes on*" and "*... a sort of barn dance with attitude.*" Well there you have it.

On Saturday there was room in the programme for some spontaneous and last minute additional sessions. So that took the total number of sessions to well in excess of 100. Inexorably, that brought us to the closing speaker - appropriately enough it was John Mason with the title, 'Reflections on drawing to a close'. He was celebrating and marking not only the close of the conference but his own imminent retirement. John is passionate about learning and the circumstances that nurture and allow it to thrive.

John explored some simple geometric figures by focusing on their areas and perimeters. He showed the rich mathematical structure that lies just below the surface of even the simplest shape by considering invariance.

John Mason:

On Paul Halmos,

"My job is to talk, yours to listen. Let me know if you finish first."

Cutting in to the figures affects both the area and the perimeter but how are they linked

and how may one be changed and not the other? Simple questions - profound answers and real mathematics. John

concluded his talk with some words that go right to the heart of his mission:

"Ah, but a man's reach should exceed his grasp, or what's a Heaven for?" (Robert Browning).

This brought conference to a close. There are three types of mathematical conference - those imbued with an energy, excitement and enjoyment that spreads like wildfire and those that don't. Need I say more? Well just one more word - join us in Cambridge in 2009. You'll otherwise miss John Barrow (author of the Artful Universe, The constants of Nature and many more), Robin Wilson (author of Music and Mathematics, Four colours suffice) and Martin Rees (the Astronomer Royal). They are accompanied by a full programme of sessions on all aspects of mathematics and mathematical education that also features an embedded day devoted to primary and another exploring mathematics through textbooks. Don't miss it.

Barry Lewis on behalf of Conference Committee

Professional Development Committee

The activities of the committee in 2007-8 have been clearly focussed on the principle objective "to promote and support the professional development of teachers".

The committee produced a position paper which was presented to the December Council meeting and is now developing a *Professional development planning guide* to support the management of professional development events and include clear guidance to both the event organiser and MA HQ with regards to ensuring a smooth process.

The revitalised Professional Development Committee met at the London Mathematical Society HQ, London on Friday 4th January 2008 to explore a range of options for one-day events in 2008 and it is actively working with representatives from Teaching Committee to develop a series of PD events for both members and the wider teaching workforce.

Over the past year members of the committee have continued to work with a range of bodies including The British Educational Communications and Technology Agency (BECTa), The KS3 Strategy, The Department for Children, Schools and Families, the Subject Associations Working Group (SAWG), Steljes Ltd, Intel plc, London Grid for Learning, General Electric, STEMNET and the NCETM. There follows a summary of key activities over the period.

GE SETNET AiM London Pilot

The MA coordinated the "Achievement in Mathematics" London pilot, sponsored by General Electric (GE) and in collaboration with SETNET, which aimed to produce innovative resources to support the development of functional mathematics at Key Stage 4. The MA also provided professional development activities for both the teachers

and GE Ambassadors involved in the project. A very stimulating day was held at the GE Money offices, Hounslow in autumn 2007 at which a number of GE's volunteer employees revisited some GCSE mathematics and then supported the resources to be trialled by pupils in the London Boroughs of Hounslow and Hillingdon.

These free resources are now widely available to teachers from the NCETM website <http://www.ncetm.org.uk>.



MA Secondary Education Mathematics Conference

The second MA one-day event for Scottish secondary mathematics teachers was held on Saturday 15th September 2007 at Stirling University and, as in the previous year the event was oversubscribed and attracted over 220 delegates who benefited from a wide range of talks, presentations and workshops. Delegate feedback from the day, both informal and via the evaluation forms, was hugely positive and the MA stand did brisk business selling publications and welcoming new members. The keynote session was provided by Rob Eastaway in his presidential year. Planning for this year's conference for Scottish secondary school teachers is already underway and will be held at Stirling University on September 20th 2009 under the auspices of Bill Richardson.

Interactive whiteboard lesson resources

The range of exemplar lesson resources, developed by the MA for Steljes SmartBoard, to support teachers to gain some professional development and maximise the benefits of classroom usage of their SmartBoards within secondary mathematics lessons, have now been made widely available through the Steljes website Smart Exchange at http://exchange.smarttech.com/files/folders/math_associati_on_uk/default.aspx

National Centre for Excellence in Teaching Mathematics (NCETM)

The MA has been represented at Stakeholder conferences and regional events hosted by the NCETM and continues to develop a healthy collaborative relationship with the newly established Centre which includes the co-hosting of a one day event detailed below.

MA/NCETM one-day Event for secondary mathematics teachers in Yorkshire and Humberside

The first joint MA/NCETM one-day event for secondary mathematics teachers took place in York on February 23rd 2008 and an initial analysis of the evaluation forms (and the delegates comments on the NCETM portal) indicate that the attendees found it a highly worthwhile professional development event. As this was the first event the MA has organised in collaboration with NCETM it has highlighted the need for a clear understanding of the respective roles and responsibilities if the event is to be repeated in other regions. Sincere thanks go to Mary Ledwick and the HQ team for their commitment and hard work in making this event a success.

Bowland Maths PD Project

The Bowland Key Maths project, aimed at Key Stage 3 is nearing completion, and the Chair of the Professional Development Committee is working with ATM colleagues to design the half-day events for secondary mathematics consultants, advisers, Advanced Skills Teachers and Lead Practitioners. The events aim to raise awareness of the Bowland Key Stage 3 activities and the associated professional development resources and prepare the delegates to support groups of teachers to begin to use the resources in key stage 3 classrooms. Further information is available from www.bowlandmaths.org.

Becta/DCSF Contract 2007/8

The joint MA/ATM 2007-8 contracts were finally signed in January 2008 for work that is to be completed by March 31st 2008. All of the contracts aim to support secondary mathematics teachers' professional development by developing their uses of ICT for learning and teaching. The joint MA/ATM has already produced guidance on useful web-based resources for classroom teaching and

home learners which will be widely distributed through the subject association websites.

The MA coordinated a 2-day meeting in January 2008 where an invited expert group worked to resource a KS4 curriculum grid with exemplar ICT activities that could be provided as recommendations to teachers with supporting notes and files where appropriate.

Finally, the MA also coordinated a one-day conference in London on 1st February 2008 for a group of teachers who had submitted case studies of how they are using ICT to support "hard-to-teach" topics. The case study submitted by Jaiwant Timotheus (Blue Coat School, Walsall) was judged by a joint MA/ATM panel to be worthy the recipient of the prize of mathematics software for his school worth £200. A number of these case studies will be developed further and made available to the wider community through the MA/ATM websites and links from the NCETM website.

Alison Clark-Wilson (Chair of Professional Development)

Publications Committee

Having taken over in April 2007 as the new Chair of this committee I have faced quite a steep learning curve. The committee meets once a term. As its name says, it is responsible for all the Association's publications. Obviously anything the Association publishes should not conflict with its aims. We also have to be commercially minded, for although the Association is a registered charity, it still has to be run as a business: and we have to aim for our publications to be financially profitable. We keep this in mind as we see books through from the initial idea and draft until they appear as stock ready for sale. Wherever the idea for a book comes from, we have to assess whether it is something that is appropriate for us to publish, and whether it will sell well enough to cover the costs of production and printing. Most of our authors also work full-time, completing their book in whatever time they can afford; we are extremely grateful to them for being prepared to do this. Of course, writing a book is only a start. It has to be proof read and corrected. We then have to consider estimates from printers, and decide on an affordable print run that we expect to be able to sell. This in turn almost dictates what the selling price should be. Finally we monitor the sales of all our books.

A further task is deciding which of our publications should be featured in the Hodder catalogue. This is part of our agreement with them. We are also devising a method of tracking what extra sales arise in this way.

Work in progress during the year has included a revised edition of *Can You Prove It* being prepared by Sue Waring. Nick Lord has been working of *25 Years of Problem Corner*: a collection of all the problems that have appeared in the Mathematical Gazette since the problem corner began. Doug French is preparing a further selection of ideas from his *Creative Use of Odd Moments*. We are also publishing a book by David Crawford, *It's a Kind of Magic*, which we believe will be a bestseller. This year we have also been selling a mathematics calendar for 2008. This has been a popular and successful venture.

During the year the following people have attended meetings of the committee: Peter Bailey, Paul Harris, Richard Kirby, Mary Ledwick, Barry Lewis, Paul Metcalf, Bill Richardson and Sue Waring. I have been helped enormously by them, and I thank them for their hard work and enthusiasm.

Michael Fox (Chair of Publications)

Editorial Happenings

The first year as Editor-in-Chief has certainly proved to be a busy time as the editorial board is asked to make cuts in response to the associations' financial position. The task to save money whilst maintaining the exceptionally high quality of our journals is not an easy one.

In the circumstances, we were tasked with looking at every aspect of our work including the viability of some of the journals, cost saving on others and the potential for generating income from advertising. A budget generating £25K was agreed with Council.

In other cost cutting considerations we looked at the frequency of the MiS publications, the savings from moving journals to other printers and the question of whether journals such as Primary Mathematics, Equals, Symmetry Plus and Mathematical Pie remain viable.

I am very grateful to all the editors and production editors for their support at this difficult time, as well as all of the people who provide support 'behind the scenes' at this difficult time. My particular thanks are due to the following colleagues for their tireless and unenviable roles as MA editors.

Mathematical Gazette - Gerry Leversha

Mathematics in School - John Berry and Chris Pritchard

Primary Mathematics - Lynne McClure

Equals - Ray Gibbons

MA News - Sue Waring

Mathematical Pie - Wil Ransome

SymmetryPlus - Martin Perkins

My additional thanks to Janet Powell who has taken on responsibility for increasing advertising revenue, and has done a wonderful job attracting income through advertising and sponsorship.

My thanks also to Bill Richardson, whose support in terms of typesetting has now extended beyond the Mathematical Gazette, saving the association considerable sums of money.

The additional revenue generated and saved is most welcome and will help to secure the future of much of what we do as an editorial board.

In the meantime, I hope that the report following my second year as Editor-in-Chief will be a little longer and allow me the opportunity to celebrate the exceptional work of the other members of the editorial board. In the meantime, I am busy pursuing another cost saving proposal for the journals so you will have to excuse me

Paul Metcalf (Editor-in-Chief)

Publicity and Membership Committee

Attracting new members and retaining those we have remains a priority for the Association. Clearly the membership base is central to the finances of the Association and hence to all that the Association can offer to its members and the contribution it can make to supporting Mathematics in Education. There having been no major mailing campaigns in 2005 and 2006 it was decided to run a new campaign in early September 2007 sending out a recruitment letter and membership application form to 6,100 secondary schools in the UK. This was a reasonably successful campaign and was followed by a further secondary mailing in mid March 2008 which included a copy of the new publications catalogue. There was also a primary schools mailing in March 2008 to the top 10,000 primary schools.

In addition to the mailings there was a desk at the annual conference and stands at various other one day conferences for instance York where membership information was available and publications were being sold.

Membership information is available on the website and it is planned in the future to conduct email campaigns as well as mail shots since more and more information is disseminated via the internet.

Sue Singer (Chair)

Primary Mathematics Challenge

The number of schools taking the PMC in November 2007 was up by over 300 on the 2006 figure and we sold more than 100 000 papers. Feedback was once again overwhelmingly positive.



Here are some of the comments.

Teachers:

Fantastic as usual

Interesting and exciting topics

Raises the profile of maths

Harder than last year

Easier than last year

Our first PMC and we enjoyed it

Good test of logic, knowledge and strategy

Smooth admin

As always it makes them think

Very useful activity

Pupils were excited and enjoyed the challenge

Good starting points for discussion

Great set of questions – we all enjoyed it

Definitely a yearly feature on our school calendar

Teasingly good

They always look forward to the PMC.

A great extension for the gifted and talented

Pupils were challenged and inspired

Great fun as usual

It stretched the very able children

Pupils:

I love the pink paper

I'm sweaty after that!

The questions were funny

Was that maths?

I liked the funny names

It made you think!

That was hard but good fun

It helped me understand the point of maths

Cool but cruel

Probably the best test I've ever done

I tried all the options!

The octopus was cute!

*We should do this more often
 Evil but loads of fun
 My brain ached but I loved it!
 I thought I wasn't going to like it but I did
 I tried to work them out logically!
 Sneaky
 Fun but tricky
 Did they ever meet in the pool?
 It pushes you to your limit*

The number of high scoring pupils entering the Finals was 751 and we awarded 51 gold medals, 104 silver medals and 172 bronze medals.

The price for a pack of ten PMC papers, certificates and Mark Scheme will remain at £8 for November 2008 but will probably rise for the 2009 challenge. We are looking at ways of reducing admin costs with on-line registration, feedback and pupils' results sheets. We hope this will reduce the time which require temporary office staff. There were some problems with the post in November, as usual. There will be a few small changes to the PMC papers this year, aimed at reducing the effects of multiple-choice guessing and trying to ensure that the pupils invited to take the Finals are the best of the November pupils.

We are looking for new sponsors for the PMC after five successful years with Invicta.



Feedback for the November 2007 challenge was once again very good.

Some pupil's comments:

*Challenging but not impossible
 Wow – that made me think
 Who puts on a cap before their pants?
 Now I know what a nonagon is
 Sneaky
 In a funny way I enjoyed it
 Too easy (this pupil got a low mark!)
 Aaaaaghhhhh
 This was evil but loads of fun
 It made my mum think too!
 The PMC is my favourite maths test
 I liked the cheesy jokes like Doctor When
 Logic required
 Challenging without being too scary*

Some Teacher's comments:

*An excellent paper this year
 It really made the pupils think
 It helped raise the profile of maths
 A good mix of challenging questions
 We really look forward to the PMC
 Really motivating for the children
 A real maths challenge*

*Another cracking paper
 Lots of scrap paper required
 Lots of animated discussion after the challenge
 A great enrichment exercise
 Where do they keep finding these questions?
 It made us teachers think as well*

97080 PMC papers were sold to 2571 schools, with 67956 certificates for presentation in assemblies. 1425 highest-scoring pupils were invited to take the PMC Finals in February this year (1021 in 2006) and 329 medals were awarded in March.

We have reviewed the publicity material and design of certificates. The cost per pack of ten PMC papers, certificates etc is going up to £8 for November 2007. The use of OMR sheets for marking the Finals has proved difficult. Assistance from the UKMT is most helpful. Snow increased postal problems in December. We have strengthened the PMC Management and Problems Teams and are pleased that Alan Slomson and Alex Voice (both representing the UKMT) are now members. The second book of PMC problems will be published by the MA shortly.

Peter Bailey (Chair of PMC Management Team)

Library Committee

The Wittgenstein Papers

These papers of Francis Skinner with Wittgenstein annotation, which are on loan to Trinity College Cambridge, are continuing to attract great scholarly interest. There are plans to publish the new findings through Cambridge University Press, to include the previously unknown Brown Book papers and a completely unknown Pink Book. The 2009 MA Conference at Robinson College Cambridge is planning to include a presentation on these papers and their significance.

Donation and Disposal of Surplus Books

The MA Library acquires books both from personal libraries and from publishers who send copies for review in MA periodicals. Thirty surplus new review copies have recently been received from Hugh Williams, who has also donated 35 of his own books: half of these will be added to the MA Library and half are accommodated as surplus stock for disposal.

By the end of 2007, the disposal of around 250 surplus books accommodated in crates at MAHQ was complete. The total income from donations was £470: an encouraging return to add to the MA Library fund. Because of the interruptions of Christmas and the New Year, and major difficulties in the overall management of the MA web site, the web pages advertising these surplus books were unfortunately not removed until March 2008.

Over one hundred new duplicate books and pamphlets are currently stored at MAHQ. If the quality and quantity of surplus stock justifies it, then another round of book disposals will be launched in 2009, possibly including a display of stock at the Cambridge conference.

Cataloguing

The total number of computer records for MA books at the University of Leicester was reported to be 9184 in April 2007. This was an underestimate because books waiting in storage to be shelved are not included in this total. By April 2008, the inclusive total figure has grown to over ten thousand records, including over six hundred books still waiting to be shelved in the new David Wilson Library (DWL) of the University. This notable increase, above the 140 records in the annual service agreement, was

supported in 2007 by additional funding of £1.2K from the MA.

Because of the new building works and staffing changes, MA cataloguing for 2008 has not yet resumed. Over two hundred books and pamphlets are currently waiting at MAHQ to be catalogued and then shelved in the new open stacks of the DWL. In addition, the entire collection of around 550 older Hersee books is still accommodated in the John Hersee room at MAHQ. Around 280 of these books are worthy for the University's Special Collections, about 70 for the open stacks, and about 200 would remain as duplicates on display shelves at MAHQ. The scale of backlog cataloguing now extends to four years in terms of the agreed annual allowance. The Hersee books would increase the MA Special Collection in the DWL by 80% from around 350 to 630 titles. An annotated list of all the older Hersee books is in preparation, but funding beyond the MA's limited means is required in the short term fully to catalogue and accommodate this unique donation within the DWL.

The new David Wilson Library, University of Leicester

The Mathematical Association Library now forms part of the University's new David Wilson Library which was opened on 1 April 2008 after nearly three years of construction work. The MA's open access books are already accommodated alongside the University's mathematical books and the new Kirby and West Suite will in due course provide access for all the Special Collections. Book movements are still continuing and MA periodicals will be returned to the Library over the summer vacation.

When all the MA Library components are finally accommodated, the new facilities and services will be advertised to MA members both through the *MA News* and the web site. The MA Library web pages will need to be rewritten to match the new conditions. The University's major investment in a new Library for the 21st century provides a most welcome bonus for the MA Library and its future.

Mike Price (Librarian, and Chair of Library Committee)

Teaching Committee

The role of Teaching Committee is to keep under review all matters relating to the teaching and learning of mathematics at all levels, to advise Council on responses and representations to outside bodies and to generate appropriate material for publication or dissemination in other ways. It meets three times a year and hold a collection of open meetings at Conference. Much of our work is done by subcommittees, which have either been set up to carry out a particular task or have a standing brief in relation to a particular area. These currently comprise the Primary, 11-16, Post-16, ICT, and Beginning as a Maths Teacher Subcommittees. They are actively engaged in producing appropriate materials, as well as feeding into other Teaching Committee work in their field of focus. Some meet face-to-face on a regular once-a-term basis, some 'meet' electronically, and others employ a variety of methods. More detailed reports from each follow. There are always opportunities for practising teachers wanting to become actively involved in the work of subcommittees: please contact the relevant chair for details.

Teaching Committee also maintains close links with other MA committees, especially Publications and Professional Development, for obvious reasons, and has been pleased to see the recent refocus of the latter.

2007-8 has seen further development of the new Secondary curriculum and of the 14-19 Pathways project; Teaching Committee continues to monitor both of these carefully, and respond to issues that arise. Concerns about possible unintended consequences for mathematics of the Secondary Curriculum were expressed to Sue Pope but were rejected; the committee has recently had a constructive and frank extended discussion with Sue about various aspects of the new curriculum: as always, many of the implications lie in the interpretation and received messages 'on the ground', and many potential gains look not unlikely to be undermined by continued high stakes assessment, including the introduction of single level tests, which already seem set to lend weight to arguments for teaching 'by level'. The committee will continue to try to find ways to influence the implementation of the new curriculum in ways which reflect current understanding of 'best practice' in mathematics education. Meaningful communication with diverse bodies concerned with mathematics education, forms a core part of the role of Teaching Committee: we have a nominee on QCA's 14-19 Mathematics Advisory Committee (Jennie Golding), and are able to meet with QCA, in conjunction with other mathematics subject associations, and the Secondary Strategy team, on a regular basis, as well as participating in various national events such as those instigated by NCETM and QCA for stakeholders. We have good links with NCETM and are trying to establish closer interaction and a more unified voice with ATM and NANAMIC in particular: a single voice for mathematics education would be a powerful force, where appropriate.

Deep concern about the current profile of high stakes assessment throughout statutory education, and its cost in terms of quality mathematics education, was expressed in a paper submitted by Teaching Committee to the House of Commons Select Committee Enquiry into Testing and Assessment. Changes within the government meant the original committee was disbanded, but it has reformed and has now finished taking evidence: readers will be surprised to know that Ed Balls claims to have seen 'little evidence of excessive preparation for formal tests when he has been visiting schools'! The DCSF appears wedded to both League Tables and frequent formal assessment, despite a weight of evidence of resulting distortion of teaching and learning; it will be interesting to see the outcome of the Enquiry.

The early part of the year saw the distribution of a leaflet 'Retention of Good Mathematics Teachers', prepared by a subset of Teaching Committee, and sent into all secondary schools, colleges and local authorities, as well as many other pertinent destinations: this spelt out strategies which could be adopted by government, leadership teams within institutions, and departments, to increase retention of that most valuable of commodities, the effective mathematics teacher. Copies are still available from HQ should you not have seen it. We have similarly prepared a submission to the Williams Primary Enquiry, has written a paper setting out an MA position re a single awarding body for mathematics qualifications at any level (distributed with the February MA News), and has prepared 'Advice for teaching the most able in mathematics' at both primary and Secondary levels: these latter should shortly appear on the MA website.

Teaching Committee always tries to commit a substantial part of its (thrice-yearly) meetings to discussion of a current issue: apart from that of curriculum developments

with Sue Pope, we have tried to thrash out issues regarding primary/secondary interface, the place of publishers and awarding bodies in mathematics education, and most recently, possible aims and foci for the 2009 conference at Robinson College Cambridge, in conjunction with Robert Barbour. We remain deeply indebted to Doug French, who chaired the committee so effectively for most of the year, and to Peter Thomas, whose organisation and eye for detail would do credit to Euclid; but I should like to thank the whole committee for their continued hard work, good humour, and time freely given: they are truly a pleasure to work with.

Jennie Golding (Acting Chair of Teaching Committee)

Subcommittee Reports

118 ICT

Chair Adrian Oldknow tc-118@m-a.org.uk

The subcommittee was originally formed to write a report (on Symbol Manipulation), and has continued as a standing group which discusses issues by e-mail when they arise. It has convened a couple of working of conferences – to produce a report for the TTA and lesson materials for the maths strand of the KS3 Strategy. Since the re-orientation by the DfES of policy on embedding ICT in subjects, the ATM and MA have worked together on a series of funded projects administered by the professional officers, drawing on the expertise of individuals within the group, rather than with the committee itself. In the current climate, without professional officers for either ATM or MA, with DCSF playing a less hands-on role for ICT, with Becta having an enhanced remit, with the development of the National Centre, with the new focus on STEM etc. the subcommittee will be taking a more important role. Thus the review of the subcommittee's role and membership by Teaching Committee in the autumn was very timely.

Following that review we are now seeking to widen participation in the subcommittee, particularly from teachers in primary, secondary and 16-19 education. Of course the ICT work of the MA spans many areas of its business, including particularly its Teaching, Professional Development and Publications Committees. We need members who are experienced users of ICT in their own teaching who can help us:

- offer advice to agencies such as Becta, QCA, TDA;
- offer support to schools;
- draw up proposals for future funded work in ICT/maths;
- produce and/or commission resources and information to support the whole maths teaching community in making more effective use of ICT in teaching and learning;
- maintain a lively, accurate and informative ICT area of the *MA Website* and
- otherwise improve the role that the MA plays in the ICT strategy.

The subcommittee has undergone some changes in membership. An article has appeared in *MA News* about the reshaping of the committee, but we have not as yet had responses from teachers. We aim to finalise the membership immediately after the Easter joint conference at which we will make a further appeal. We would be very glad if the call for membership could be brought to the attention of teachers and other colleagues.

The current Becta funded ICT work is undertaken mainly in collaboration with the ATM and is coordinated by Alison Clark-Wilson, Adrian Oldknow (MA) with Sue Johnston-Wilder, Jenni Ingram (ATM). As ever, Becta did not firm up on contracts until late December, giving us ridiculously short timescales in which to deliver. The current work includes producing:

- Guidance for teachers on good web sources of resources, advice, information and support (Starter for 10).
- Similar guidance for pupils and students who are home based learners.
- A grid matching ICT opportunities against the new NC descriptions at KS4
- A series of about 20 case studies by teachers using interesting ICT approaches to address aspects of maths usually considered hard to teach.

The subcommittee is also assisting NCETM in the planning of their first ICT conference in London on 12 March 2008. Adrian Oldknow gave the MA seminar at the BETT show on 10 January.

120 Beginning as a Mathematics Teacher

Chair Jennie Golding tc-120@m-a.org.uk

This subcommittee has started work on a publication to replace the current MA offering for new maths teachers in secondary schools and FE, with a lead author's writing modified by electronic consultation. The project is proving quite a challenge in the light of the ever-shifting frameworks within which we work, but it is hoped to complete a draft in Summer 2008.

121 Primary

Chair Lynne McClure tc-121@m-a.org.uk

At the 2007 annual conference it was decided that in order to inject some energy into the subcommittee we would meet face to face at least once during the year. In fact we achieved so much at the first meeting that it was decided to meet three times in addition to the open meeting at conference. All current members are active.

Issues which have been addressed and acted upon have been:

- Formal election of subcommittee officers and delegation of other responsibilities;
- Suggestions and plans for CPD events - the subcommittee is now formally represented by Liz Woodham (nrch) on the Professional Development Committee;
- Response to Williams Review on behalf of MA, representation on Every Child Counts advisory group (Joint Mathematical Council representative);
- Redesign and update of primary pages of *MA Website*;
- Redesign and reallocation of responsibilities for *Primary Mathematics* journal;
- Input to Primary Subjects journal for DCSF (Council for Subject Associations);
- Plan and first draft of activity book for maths clubs and primary/secondary transition sessions

Future plans include ensuring a loud primary voice in conference planning.

129 Post-16

Chair Peter Thomas tc-129@m-a.org

The subcommittee addresses issues in post-16 mathematics education and develops materials to enhance provision. Its members, from schools, further education

and higher education, meet once a term in London. During the year the subcommittee merged with the Teaching and Learning Undergraduate Mathematics Subcommittee. It has also gained two new members, Alyssa Rowlandson and Steven Lomax, as well as welcoming back Stephen Drape. The subcommittee wishes to express its thanks, for their valuable contributions to its work, to Helen Russell and Jane Imrie who have resigned from the subcommittee. Much of the subcommittee's time has been taken up with discussing proposed and impending developments in mathematics education; this discussion has helped to inform the Association's stance on several of the issues involved, including its position paper on awarding bodies. The subcommittee also circulates an email newsletter, to keep people up-to-date, about once a month.

At the MA Annual Conference in 2007, the latest version of the subcommittee's booklist for sixth-formers was published. The subcommittee also held an Open Meeting at the Annual Conference. It has engaged with the Millennium Mathematics Project to make enrichment and extension materials for GCE mathematics more readily available. The subcommittee is exploring the development of multi-media materials to support the teaching of mechanics. It is also examining several new projects.

132 11 - 16

Chair Mary Ledwick tc-132@m-a.org.uk

The subcommittee is currently working on three main projects. It hopes to produce a set of resources for use in secondary schools on Mathematics and World Faiths. A second publication is to be drawn from some of the Resource pages in back issues of *Mathematics in School*. The subcommittee is also looking to develop the information and links available on the 11-16 part of the *MA Website*.

The subcommittee continues to monitor proposals and changes affecting Key Stage 3 and 4 Mathematics and to respond to consultations. Several members led sessions at the 2007 Conference. Mary Ledwick's talk provided up-to-date information on *Mathematics across the Curriculum*. Geoff Tennant's presentation, entitled $3a + 2a = 5a$ without apples, looked at various ways in which algebraic simplification is introduced in secondary classrooms. Rachael Read shared many ideas from her own teaching in a session called *Creating engagement and enjoyment in your classroom*. Finally Jenni Ingram, Steve Edwards and Sue Forrest ran a joint workshop on *Assessment for Learning*, based on the subcommittee's resource pack publication on that topic.

The subcommittee meets three times a year (in January, May and September) and would welcome new members.

Membership

March 2007 – February 2008

Officers

Chair	Jennie Golding, The Woodroffe School, Lyme Regis, Dorset, to 12.04.07 Doug French, North Dalton, East Yorkshire from 12.04.07 to 09.02.08
Vice-Chair	Jennie Golding, The Woodroffe School, Lyme Regis, Dorset, from 12.04.07
Secretary	Peter Thomas, Hills Road Sixth Form College, Cambridge
Treasurer	Lynne McClure, University of Edinburgh

Elected Members

Sue Forrest	The Piggott School, Wargrave, Berkshire
Paul Harris	University of Brighton
Jane Imrie	NCETM
Mary Ledwick	Colne Park High School, Colne, Lancashire
Cherri Moseley	Bignold Primary School, Norfolk
Liz Russell	South Hunsley School, Melton, East Yorkshire from 19.05.07
Susan Wall	Wilberforce Sixth Form College, Hull to 18.09.07

Ex-Officio Members

Secretary of the Association
Bill Richardson
Representative of Branches Committee
Geoff Tennant
Editor-in-Chief
Peter Bailey to 12.04.07
Paul Metcalf from 12.04.07
Chair of Publicity and Membership Committee
Paul Harris to 12.04.07
Sue Singer from 12.04.07
Chief executive of the Association
Marcia Murray

The British Mathematical Olympiad Sub-trust

The International Mathematical Olympiad of July 2007 was held in Vietnam. The UK team of six had a final training camp in Queensland, Australia before travelling to Hanoi, where they secured one gold and three bronze medals, the other two team members both being awarded an Honourable Mention for scoring full marks on one question. This put them a somewhat disappointing 28th out of 93 countries.

The open access policy for the British Mathematical Olympiad continued, as did the production of a CD of solutions to BMO Round 1 for all participating schools. The usual training camps for Olympiad hopefuls were held in Bath, Hungary and Trinity College, Cambridge.

Participation in the Balkan Mathematical Olympiad appears to be a regular feature now; in Greece in 2007 a UK team of six brought back a respectable tally of one silver and four bronze medals and came 7th out of 14.

The inaugural Masters of Mathematics competition in Romania in February 2008 saw the UK's team of three come top, with one gold, one silver, one bronze medal.

The splitting of the Summer School for Years 10 and 11 into two, in consecutive weeks in July, was successful and is to be continued.

The mentoring scheme has continued to operate at four levels.

With the expansion of activities there is increased scope for interested people to become involved in helping to run them.

Philip Coggins (MA representative)

United Kingdom Mathematics Trust (UKMT)

The numbers of students taking the challenges this year were as follows:

JMC (April 2008): 286,180 entries; 241,000 took part.
IMC (February 2008): 259,180 entries; 206,000 took part.
SMC (November 2007): 87,400 entries; 64,000 took part.
Overall the numbers were slightly up on last year: 7,000 more took part in the SMC; 4,000 more in the IMC; but 7,000 fewer in the JMC.

As well as the main challenges, UKMT also offer a range of other events and activities for students and for teachers. There is now an established Team Maths Challenge each year for teams of four 12 to 14-year olds progressing from regional competitions to the big national final. A new Senior Team Maths Challenge has been successfully piloted and will become an annual event. In addition, the popular teacher meetings continue to take place.

Students continue to benefit from the mentoring scheme.

In 2008, the International Mathematical Olympiad was held in Madrid, and the team came back with four silver and two bronze medals.

The dates for the challenges in 2008-9 are:

Junior Challenge (ages 11-13): Thursday 30 April 2009

Intermediate Challenge (ages 13-16): Thursday 5 Feb 2009

Senior Challenge (ages 16-18): Thursday 6 Nov 2008

In addition to these three challenges, students who do well are invited to take part in the follow-on rounds, the Junior, Intermediate and British Mathematical Olympiads and the European Kangaroo.

The Chair of UKMT is still Professor Bernard Silvermann.

For more details of UKMT activities: www.ukmt.org.uk

John Silvester (MA representative)

Court of Loughborough University

Report of the Court of Loughborough University held 15 February 2008

The Annual Report to Court of Loughborough University for 2007 was presented by the Vice-Chancellor, Prof. Shirley Pearce. She reported that in November 2007 Loughborough had won two prestigious Annual Times Higher Awards voted for by students themselves – for ‘Outstanding Support for Overseas Students’ and, for the second year running, for the ‘Best Student Experience’. She also reported that the University was now featuring regularly in the top ten of various overall league tables (e.g. ninth in the 2007 Guardian).

The VC reported that applications for entry onto full-time undergraduate degrees in 2007 were up by 11.2%, double the national average.

The VC reported that in 2007 the University had won its sixth Queen's Anniversary Prizes for Higher and Further Education (only matched by Oxford). The 2007 award was for research into road traffic death reduction. The VC reported that the University is establishing a £15 million Sports technology Institute to develop cutting-edge technology to assist the country's elite athletes in preparation for the 2012 Olympic Games, and is developing a Science and Enterprise Park which will provide homes for many sports governing bodies in 2009.

In September the Science and Innovation Minister announced that Loughborough is to host the headquarters for the Energy Technologies Institute (a consortium of midlands universities: Loughborough, Nottingham and Birmingham) whose total funding would be a staggering £600 million over ten years and which could rise to as much as £1 billion!

Dr David Green (MA representative)

Headquarters

Another busy year completed with the diversity of work unchanging. At the end of May 2007 Cheryl Dwyer, Clerical Assistant left the MA and in view of the MA finances it was decided not to replace her for the time being. Emma De Riso also reverted back to part-time hours. The busy times were covered by temporary staff, and Lisa O'Donnell was able to minute several of the Council meetings. We also had the good fortune to be sent a very good temp, Emily Wearden, who supported the PMC and Joint Conference administration admirably.

Part of the Senior Administrator's remit is to ensure that HQ is maintained and as such the electrics in the top floor flat were renewed. During this period of time, the elderly and very infirm tenant, Denis Swift, had to be found temporary accommodation in a nursing home and very sadly he died whilst there. This meant additional work to the flat in order for it to be an attractive proposition for would be tenants and required Marcia to project manage the refurbishment to ensure it completed on time.

Thanks to HQ staff for their hard work and commitment.

At April 2008, the Headquarters Team is:-

Senior Administrator - Marcia Murray

Finance Officer - Linda Medhurst

Membership Officer - Brett Richardson

Clerical Assistant - Anne-Marie Brown

Clerical Assistant - Emma de Riso

Marcia Murray (Senior Administrator)

Rules & Regulations

Rules and Regulations can be viewed at: <http://www.m-a.org.uk/association/organisation/regulations/>
<http://www.m-a.org.uk/association/organisation/rules/>

The Council (April 2007 to March 2008)

President Mr Rob Eastaway

Immediate Past President Mr Doug French

President Designate Mr Robert Barbour

Chair of Council Mr Barry Lewis

Secretary Mr Bill Richardson

Treasurer Paul Harris

Chairs of Committees

Branches Mr Keith Cadman

Conferences (acting) Mr Martin Bailey

Editorial Board Mr Peter Bailey

Professional Development Mrs Alison Clark-Wilson

Publications Mr Michael Fox

Publicity and Membership Mrs Sue Singer

Teaching Committee Mrs Jennie Golding

Members without Office

Mr Martin Bailey

Mrs Jane Imrie

Mr Nick Lord

Mrs Mary Ledwick

Dr Catherine Ogden

Prof. Adrian Oldknow

Mrs Helen Russell

Mr Charlie Stripp

Mrs Ruth Swinton

INCOME AND EXPENDITURE ACCOUNT: YEAR ENDED 31 DECEMBER 2007

	2007	2006
INCOME		£
Members' subscriptions	219,201	262,555
Transfer from Life Membership Fund	6,000	2,928
Donations	1,071	1,153
Editorial board	15,431	10,398
Publications	31,353	40,181
Annual conference	38,033	38,117
Branches' income	4,734	2,732
Miscellaneous income	658	351
Professional Development income	89,650	110,736
Primary Maths Challenge	77,901	69,500
Library Income	451	278
	<u>484,483</u>	<u>538,929</u>
EXPENDITURE		
Editorial board	136,541	141,323
Publications	19,421	18,141
Publicity expenses	9,450	7,469
Annual conference	55,079	45,767
Teaching Committee	5,661	4,635
Council, branches and other Committee meeting expenses	8,658	14,197
Administration	174,484	195,654
Designated Fund expenditure	30,000	19,596
Depreciation	9,259	8,653
Professional development costs	100,054	138,883
Branches' expenditure	7,393	2,287
Website expenses	7,251	2,593
Primary Maths Challenge	41,797	40,925
Library Management fund	1,834	5,357
	<u>606,882</u>	<u>645,480</u>
OTHER INCOME		
Rents receivable	1,559	3,392
Interest receivable	7,747	8,116
	<u>9,306</u>	<u>11,508</u>
OPERATING SURPLUS	<u>(113,093)</u>	<u>(95,043)</u>

BALANCE SHEET: 31 DECEMBER 2007

	2007 £	2006 £
FIXED ASSETS		
Tangible assets	265,880	272,112
CURRENT ASSETS		
Stocks	34,783	31,343
Debtors	14,618	46,415
Cash at bank	159,907	215,592
	<u>209,308</u>	<u>293,350</u>
CREDITORS:		
amounts falling due within one year	(153,750)	(130,931)
NET CURRENT ASSETS	<u>55,558</u>	<u>162,419</u>
TOTAL ASSETS LESS CURRENT LIABILITIES	<u>321,438</u>	<u>434,531</u>
REPRESENTED BY		
Unrestricted Funds	293,509	381,483
Restricted Funds	27,929	53,048
	<u>321,438</u>	<u>434,531</u>

Approved by the Council on 5 April 2008

Mr Barry Lewis - Chair of Council

Dr Paul Harris – Treasurer

Mathematical Association : List of Bodies and our Representatives 2007/2008

(n.b. Where formal representation is not invited we have established informal links.)

Acronym	Body	Committee	Representative/Link	Comments
ACME	Advisory Committee on Mathematics Education	Established jointly by Joint Mathematical Council and Royal Society	None at present	
ASSET	The Association of Science Engineering & Technology	Council	None at present	
BATH	University of Bath	Court of the University	None at present	
BCME	British Congress Mathematics Education	Joint representation JMC, ATM, MA, NANAMIC, IMA, AMET, RSS, BSRLM, NAMA, BSHM, LMS	Mr W P Richardson Ms M Murray	
BMOC	British Mathematical Olympiad		Mr P J Coggins	
CITS	Department of Education and Employment	Curriculum IT Support Groups for Mathematics	Mr R Bridges	
CMATH Teacher	IMA, ATM, MA, NANAMIC	Chartered Mathematics Teacher Certification development group	Mr B Lewis	
EFAMT	European Federation Association for Mathematics Teachers		Dormant	
IMA SFESA	The Institute of Mathematics and its Applications	Schools and Further Education Service Area	Mr P Thomas	Informal link
JMC	Joint Mathematical Council	Council	Mr B Lewis	
LOUGH	University of Technology, Loughborough	Court of the University	Dr D Green	
OCR	Oxford, Cambridge and RSA Examinations	Mathematics Qualifications Panel	Mr A Osbaldiston Mr R Barbour	Currently dormant
OECD-PISA	Organisation for Economic Co-operation & Development - Programme for International Student Assessment	English steering group	Mr R Ashley Mr R Barbour	Currently dormant
PA	Publisher's Association	Teacher Publisher Liaison Committee	None at present	
QCA	Qualifications and Curriculum Authority	National Curriculum Monitoring	Mr D French	
SAWG	Subject Associations Working Group	ASE, MA, ATM, GA, DATA, HA, GA	Mrs A Clark-Wilson Ms M Murray Mr B Lewis	
SETNET	Science Engineering Technology and Mathematics Network		Mr W P Richardson	
SSAT	Specialist Schools and Academies Trust		Prof. A Oldknow	
UKMT	United Kingdom Mathematics Trust	Council	Dr. J Silvester	
