

JMC**Joint Mathematical Council
of the United Kingdom****Minutes of the JMC Council meeting
held at the Royal Society
on Tuesday 9 November 2010**

The JMC is grateful for the financial support of the Royal Society

Present*Officers*

Duncan Lawson	Chair
Gerald Goodall	Honorary Secretary
Adrian Oldknow	Honorary Treasurer

Executive Secretary

David Martin	Executive Secretary
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Members

Jenni Back	Association of Mathematics Education Teachers
Peter Lacey	Association of Teachers of Mathematics
---	British Society for Research into Learning Mathematics
June Barrow-Green	British Society for the History of Mathematics
Tony Mann	Conference of Heads of Departments of Mathematical Sciences
Colin Campbell	Edinburgh Mathematical Society
Nigel Steele	Institute of Mathematics and its Applications
Fiona Nixon	London Mathematical Society
Paul Harris	Mathematical Association
Charlie Stripp	Mathematics in Education and Industry
Sally Barton	National Association for Numeracy and Mathematics in Colleges
Lynn Churchman	National Association of Mathematics Advisors
Gerald Goodall	Royal Statistical Society (acting representative for this meeting only)

Co-opted members

James Nicholson	British Congress of Mathematics Education
---	JMC International Representative
---	International Commission on Mathematical Instruction

Observers

Roger Porkess	Advisory Committee on Mathematics Education
---	Adults Learning Mathematics
Tony Holloway	Department for Children, Education, Lifelong Learning and Skills
---	Department for Education
John Marriott	The Higher Education Academy Mathematics, Statistics and OR Network
Celia Hoyles	National Centre for Excellence in the Teaching of Mathematics
Jane Jones	Office for Standards in Education
Louise Orpin	Operational Research Society
Sue Pope	Qualifications and Curriculum Development Agency
Martin Smith	Royal Society
Paul Scruton	School Mathematics Project
John Harris	Sector Skills Council for science, engineering and manufacturing technologies in the UK
Teresa Smart	The National Strategies
Luke Graham with Heather Richards	Training and Development Agency for Schools
Bill Richardson	United Kingdom Mathematics Trust

Guests

--- Northern Ireland

Visitors

Nick Bowes Advisory Committee on Mathematics Education

- 1 Apologies** Paul Andrews (UK representative to ICMI), Janet Ainley (BSRLM), Diana Coben (ALM), Jeff Evans (ALM alternate), Lynn McClure (ACME), Andrew Osbaldestin (HoDoMS), Stephen Stanton (DFE), Libby Steele (Royal Society), Ros Sutherland (JMC International Representative), Nick Todd (NI), Elizabeth Winstanley (LMS).
- 2 Appreciation of departing representatives** Fiona Allan (ACME), Peter Johnston-Wilder (AMET). Also Roger Porkess in his former capacity as MEI representative.
- Noted also that Nick Bowes would shortly be leaving his post as ACME Head of Secretariat. Appreciation was expressed for his very large contribution to the health and vitality of the mathematical sciences.
- 3 Welcome to new representatives, alternates, guests and visitors** New representatives: Jenni Back (AMET), Charlie Stripp (MEI).
- Alternates: Fiona Nixon (LMS), Roger Porkess (ACME), Martin Smith (Royal Society), Tony Mann (HoDoMS).
- Visitors: Nick Bowes (ACME).
- 4 Minutes of the meeting of Tuesday 8 June 2010** *Paper JMC1006Minutes*
- Accepted.
- 5 Matters arising from the minutes** Item 15(d) is to be taken forward by Ros Sutherland.

Note

The relevant part of item 15(d) was as follows.

Jane Jones reported on her visit to Finland. Ros Sutherland suggested a one-day meeting of interested parties identifying key impact messages of international studies in to school mathematics. Funding for a working party beyond an initial meeting approaches might possibly be made to Nuffield and Clothworkers. James Nicholson volunteered to set up such an initial day with support from the Executive Secretary.

ACTION

Ros Sutherland to take forward

- 6 Reports from Executive**
- a. Chair**
- (1) Chair has written (25 October 2010) on behalf of JMC to Michael Gove in support of ACME.

- (2) Invitation was received from Ofqual for JMC to be involved in an international comparison exercise. Sally Barton and Roger Porkess have been nominated as JMC representatives.
- (3) Chair has written to James Nicholson thanking him for his efforts in running BCME7 and hoping he will continue for BCME8, also thanking him for acting as JMC International Representative for the initial year.

b. Secretary

Nothing to report

c. Treasurer

Nothing beyond the usual request for those eligible to submit travel expenses claims.

d. Chair of Nominations Committee

Nothing to report.

7 Report from ACME *Paper JMC1011ACME*

Roger Porkess highlighted salient points, in particular a recent letter to Nick Gibb. The previous ACME evaluation had recommended a much enlarged and strengthened secretariat, which had been put into place to excellent effect. Celia Hoyles stressed the volume and quality of ACME output. She asked whether ACME would share the results of its new evaluation; Nick Bowes said there would be a response and this would be in the public domain.

Nick Bowes commented that the apparent refusal of DFE to clear the Evaluating Mathematics Pathways Stage 7 Report so that EMP could present its work at this afternoon's discussion was unacceptable. Chair said he would write to DFE about this. [**Post-meeting note.** This has been done – letter to David Bell 25 November 2010.]

8 Working Groups

a. ICT and Mathematics

Adrian Oldknow reported that the group had now completed its meetings and a draft report was being prepared.

b. Primary

David Martin reported that Executive had received a draft brief; some small changes were required and this could then go forward. He would be handling this.

- 9 Report from NCETM** *Paper JMC1011NCETM*
- Celia Hoyles dealt with a few queries and then had nothing to add except to highlight the forthcoming National Conference in Sheffield on 1 December 2010.
- 10 JMC International Representative** *Paper JMC1011BCME*
- James Nicholson added comments to his written report. He corrected the amount of the refund to some BCME7 delegates who had been inconvenienced at Hulme Hall. The actual refund was £30 (not £35).
- He also informed the meeting that site visits for BCME8 had been made and that some sites were now undergoing further in-depth consideration. The decision on the venue should be made by Easter 2011. Once BCME8 planning was under way, help would be needed in particular with publicity and with web expertise. More generally, there was a need to refresh the BCME Committee with good new people who could be expected to be active beyond BCME8 in 2014.
- 11 UK Representative to ICMI** Paul Andrews was not present so there was no report.
- 12 Higher Education** Tony Mann commented that the government funding proposals were causing great concern. The situation was very unclear, but should become clearer over the next few months.
- Duncan Lawson commented that the government had said publicly, on the BIS website, that there would be some funding for mathematics, beyond student fee income, as an explicit part of STEM, but the amount of such funding was not stated.
- Colin Campbell commented that there were also funding problems in Scotland.
- 13 Teacher Education** *Paper JMC1011ITE* (paper headed "Association of Mathematics Education Teachers")
- In addition to the written report, Jenni Back commented that planning by HEIs for next year was very difficult as target numbers were not yet known. There was general agreement that the uncertainty made recruitment difficult. A special area of concern was whether the Mathematics Specialist Teacher (MaST) programme for primary teachers was continuing.
- Members asked the Chair to write to ministers to express wide concern about the potential detrimental effect on long-term recruitment. **[Post-meeting note.** This has been done – letter to Nick Gibb 25 November 2010.]

14 Operational Research Louise Orpin introduced herself as the recently appointed Education Officer at the OR Society. She said she was pleased to be at JMC and would welcome any contact from JMC members.

15 Update on current developments

a. DCELLS

Paper JMC1011DCELLS

Tony Holloway highlighted items in his report. He was especially pleased that a pilot Further Mathematics Support Programme was to start in Wales.

b. National Strategies

Paper: a personal paper from Teresa Smart was circulated

Teresa Smart reported that the National Strategies would definitely end on 31 March 2011. She added that the NS had been behind many activities. There would be a legacy of its work, probably via a website and virtual networks. Members commented that there was real concern that good material may be lost due to not being approved for the legacy website; strong support from the JMC may be necessary.

She added that she was unlikely to be at JMC in February 2011 but hoped that contributions to JMC based on NS work would continue to be made through other organisations, particularly NAMA and NCETM.

c. OFSTED

Paper JMC1011 OFSTED

In addition to the written report, Jane Jones asked JMC members to give feedback on any aspects of OFSTED. There was concern as to where subject-specific work would sit in future.

With regard to the visit to Finland, see Minute 5 above.

d. TDA

Paper JMC1011 TDA

Luke Graham expressed concerns over the future. He said that the marketing and advertising budget had been much reduced. An above-target recruitment into mathematics courses was again expected this year, though to a lesser extent than last year, but there was real worry regarding next year.

Paul Scruton queried some aspects of interpretation of the graphs in the paper;

there may be a question of timings of applications and acceptances.

e. QCDA

Paper JMC1011QCDA

Further to the written report, Sue Pope added that the pilot of the linked pair of GCSEs in Mathematics had commenced in September with more than 250 centres across England and Wales. These centres represented a range of type but there was only one FE college. There were still places on the pilot with OCR.

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| 16 Reports from meetings | No additional reports. |
| 17 Dates of future meetings | Tuesday 22 February 2011
Tuesday 7 June 2011
Tuesday 8 November 2011

All at the Royal Society. |
| 18 AOB | None. |

DISUCSSION ITEM

Engaging with the new mathematics education policy landscape

Led by ACME (Roger Porkess)

Roger Porkess led the discussion which was based largely on ACME's recent meeting with Nick Gibb and the follow-up letter from ACME (which was tabled for information). The discussion was widespread, open and constructive, covering much ground. Only some major points are noted here.

In primary mathematics, a serious issue was emerging around algorithms for various arithmetic techniques, long division in particular. There was strong interaction here with deficiency in subject knowledge among many primary teachers, leading to lack of confidence and hence over-emphasis on some techniques as ends in themselves rather than as steps in gaining understanding. In respect of these issues, ACME was seeking to act as an "honest broker" between the Minister and the community. JMC members were invited to email Martin Smith (martin.smith@royalsociety.org) if they wished to help take this forward. It was important to emphasise common ground – all parties wanted to ensure greater fluency in arithmetic.

There were other more general on-going issues of teachers' subject knowledge, especially the importance of subject-specific as well as generic pedagogy.

For the linked pair GCSE pilot, issues had emerged concerning the quality of the assessment material, some of which was felt not to follow the spirit of what the linked pair was intended to achieve. A meeting of examiners from the three Awarding Bodies in England and from WJEC was being set up by ACME, when these matters would be discussed. Roger was reasonably optimistic that satisfactory outcomes would emerge.

Issues surrounding early entry for GCSE had received sympathetic response from Nick Gibb. There was general agreement about the damage being done by increasing use of early entry by centres, often for an entire cohort and with no policy regarding how mathematical learning might continue after the early entry. Further data concerning the problem were becoming available; there was a need to study data on progress and on need for repeated entry. ACME was preparing a position paper and comments would be welcome (to Martin Smith, email address above).

There were problems concerning Awarding Bodies, including promotion of text books that were not necessarily of good quality and the practice of some centres to switch between Bodies in the hope of maximising results.

In post-16 mathematics, it appeared to be Nick Gibb's view that A-level Mathematics and Further Mathematics were needed but nothing else in the AS/A-level field. This militated against the desire for many more people (perhaps everyone) to continue with some mathematics post-16. It was also contrary to the widespread experience of employers who had difficulty recruiting people with the necessary mathematical skills for jobs that were not overtly mathematical; and to the experience of universities which likewise often found mathematical skills lacking in students enrolling on degree programmes outside mathematics.

More generally, it was thought that there would soon be an announcement of a curriculum review, for first teaching from 2013. Roger felt that there was a real willingness to engage with subject communities due to the lack of subject-specific expertise within DFE, but it remained unclear how any such engagement would be brought about.

Finally, mention was made of the 2011 ACME Conference, on 15 March.