

Joint Mathematical Council of the United Kingdom

Minutes of the meeting held at the Royal Statistical Society on Friday 9 June 2017

Present

Officers

Chair	Paul Glaister
Honorary Secretary	Peter Thomas
Honorary Treasurer	Paul Harris

Representatives of Participating Societies

Adults Learning Mathematics	Jeff Evans
Association of Mathematics Education Teachers	Helen Farmery
Association of Teachers of Mathematics	Sue Pope
British Society for Research into Learning Mathematics	Alf Coles (deputy)
British Society for the History of Mathematics	June Barrow-Green
Conference of Heads of Departments of Mathematical Sciences	Stephen Langdon (deputy)
Edinburgh Mathematical Society	David Pritchard
Institute of Mathematics and its Applications	Nigel Steele (deputy)
London Mathematical Society	Alice Rogers
The Mathematical Association	Jennie Golding
Mathematics in Education and Industry	Charlie Stripp
National Association for Numeracy and Mathematics in Colleges	Sally Barton
National Association of Mathematics Advisors	–
National Numeracy	Derek Huby
NRICH representing the Millennium Mathematics Project	Ems Lord
Operational Research Society	–
Royal Academy of Engineering	–
Royal Statistical Society	Scott Keir (deputy)
STEM Learning	Stephen Lyon
United Kingdom Mathematics Trust	Bill Richardson
Wales Institute of Mathematical and Computational Sciences	–

Co-opted Members

Chair of the BCME Committee	David Martin
UK Representative to the International Commission on Mathematical Instruction	–

Representatives of Observing Societies

Advisory Committee on Mathematics Education	Jeremy Hodgen
Department for Education [England]	–
Department of Education [Northern Ireland]	Julie Harris
Education Scotland	Stuart Cathro
Higher Education Academy	–
National Centre for Excellence in the Teaching of Mathematics	Steve McCormack
National College for Teaching and Leadership	–
Office for Standards in Education	–
The Office of Qualifications and Examinations Regulation	Janet Holloway (afternoon)
	Alison Tonkin (deputy)
The Royal Society	Rebecca Veitch

Visitors

Chartered College of Teaching	Julia Flutter (afternoon)
Department of Education [Northern Ireland]	Susan O'Boyle

1 Introduction

- 1.1 **Welcome** The Chair welcomed everyone to the meeting.
- 1.2 **Practical Arrangements** As the Honorary Secretary had read out the procedure for emergency evacuation at the preceding Special General Meeting of the Joint Mathematical Council of the United Kingdom, he did not read them out again.

- 1.3 **Apologies for absence** Apologies for absence were received from Sue Gifford (BSRLM), Jan van den Heuvel (HoDoMS), Chris Chipperton (IMA), Jane Jones (Ofsted), Janet Holloway (Ofqual) for the morning, Matt Lewis (NAMA), Jane Imrie (NCETM), Charlene Timewell (ORS), Neil Sheldon (RSS) and Sofya Lyakhova (WIMCS).

2 Minutes of the meeting held on Tuesday 28 February 2017

- 2.1 **Approval** The minutes of the meeting held on Tuesday 28 February 2017 were approved.

2.2 Matters arising not elsewhere on the agenda

- 5.1 **Institute of Mathematics and its Applications** The Chair draw attention to the Mathematics Teacher Training Scholarships document that was circulated on behalf of the IMA following question asked about the scheme at the Council meeting on Tuesday 28 February 2017.
- 5.2 **The Mathematical Association** The Chair was also pleased to observe that all GCE Mathematics and Further Mathematics specifications for first teaching in September 2017 in England were now accredited.
- 6.1 **Advisory Committee on Mathematics Education** David Pritchard asked how ACME's work is to cover Northern Ireland, Scotland and Wales. The Chair replied that The Royal Society is a UK body and it is keen that ACME should cover the whole of the UK. Rebecca Veitch said that The Royal Society would make sure it had experience and expertise available to ACME for it to cover Scotland and the other nations. David Pritchard asked what would be the mechanism to ensure issues in those nations were on ACME's radar. The Chair suggested that Rebecca Veitch might talk to Frank Kelly (Chair of ACME) about opportunities to incorporate concerns outside England into ACME's work. Jeremy Hodgen said that ACME was looking to recruit a Scottish member. Rebecca Veitch said that, given ACME's capacity in terms of the committee and staff, it will need to prioritise topics for action. Bill Richardson said that the Scottish system is so different and ACME will have much to learn, as he found when he moved to Scotland. David Pritchard said that he was glad to hear that ACME was engaged with its UK-wide brief and that it recognised that the pressing issues could be different in different nations. Rebecca Veitch said that she was talking to The Royal Society of Edinburgh and that would be an important relationship to build. David Pritchard agreed.

3 Reports from JMC Executive Committee

- 3.1 **Chair** The Chair gave his report at the preceding General Meeting of the new JMC.
- 3.2 **Honorary Secretary** The Honorary Secretary said that he had now received technical advice which he hoped would enable him to add the logos of Participating Societies to the JMC website but this would be undertaken as part of the revisions of the website for the new JMC.
- 3.3 **Honorary Treasurer** The Honorary Treasurer said that apart from payments relating to the JMCs' insurance which were still in process, he was now able to move to closing the bank accounts of the old JMC. He said that he hoped that by November all funds and activity would be with the accounts of the new JMC.

4 Reports from other committees and working groups

- 4.1 **BCME Committee** The report was considered at the preceding General Meeting of the new JMC.
- 4.2 **ICME Bursaries Committee** No report.
- 4.3 **GCSE Working Group** No report.

5 Election of Honorary Treasurer

Sue Pope having withdrawn her candidacy, Jennie Golding was elected unopposed to serve as Honorary Treasurer from the conclusion of the Annual General Meeting on 14 November 2017, should it take place (the winding-up of the old JMC having been agreed at the earlier Special General Meeting).

6 Reports from Participating Societies

- 6.1 **Institute of Mathematics and its Applications** Nigel Steele said he was very pleased with the growth in numbers applying for Mathematics Teacher Training Scholarships, many of whom were good candidates; he put this down to the differential between the scholarships and the bursary. The Chair said that the scholarships had been advertised at the post-16 conference on transition.
- 6.2 **London Mathematical Society** Alice Rogers said that the LMS Education Day had been targeted at people in university mathematics departments as there was an increasing expectation they will do things in schools. Alice Rogers said that schools have a lot to do and the TSST programmes could

make more use of higher education institutions; there is more commonality with schools than is often thought, for example in the demands of service teaching; it could be used to help inspire more to go into teaching.

Alice Rogers said that the authors of the draft document were keen to receive comments and she asked that they be passed through her. She said she expects to see significant changes from the draft in the final document. The Chair added that the afternoon at the Education Day was spent working on the draft. David Pritchard asked about the timescale for when the document will be able to be circulated freely as the Scottish government was looking at 'fast track' ways into teaching and it would be good to learn from experience in England. Alice Rogers replied that it would be months rather than days but she invited David Pritchard to discuss the matter further with her outside the meeting.

- 6.3 **The Mathematical Association** Jennie Golding had nothing to add to her report.
- 6.4 **NRICH** Ems Lord said that teacher release was an issue; very few secondary teachers are being released even for free events.
- 6.5 **Operational Research Society** The report was noted.
- 6.6 **STEM Learning** Stephen Lyon said that he was spending much time at present providing professional development for science and design technology teachers because of the increased amount of mathematics in those subjects in the revised GCSEs in England, and mathematics teachers need to be aware of that content in those subjects as this could lead to some mathematics being taught by science and design technology teachers.
- 6.7 **United Kingdom Mathematics Trust** Bill Richardson said that the report had been written by Rachel Greenhalgh, Executive Director of the UKMT and was an innovation; he said he would welcome feedback. He also distributed copies of the UKMT Yearbook. Bill Richardson also drew attention to the International Mathematical Olympiad in 2019 which will take place in the United Kingdom.
- 6.8 **British Society for Research into Learning Mathematics** Alf Coles said that BSRLM was in good health and numbers were generally up, but they would particularly welcome more papers from Northern Ireland, Scotland and Wales. He also asked other organisations to encourage more teachers to attend BSRLM's termly day conferences, they would find BSRLM an inclusive organisation. He reported that with *Research in Mathematics Education* now established as an international journal, the BSRLM Executive is looking at how to support emerging researchers.

7 Reports from Observing Societies

- 7.1 **The Royal Society** Rebecca Veitch said that a first meeting had taken place with JMC, CMS and the learned societies to discuss the development of the Contact Groups and a second meeting would take place in July or August. She also said that names of possible further members of ACME would be put to the Council of The Royal Society in July.

The Chair offered a correction to the report: that it was CMS, not JMC, that jointly hosted the reception at the House of Commons in February 2017.

- 7.2 **National Centre for Excellence in the Teaching of Mathematics** Steve McCormack said that he had nothing to add to the report, apart from saying that the Maths Hubs were at present planning for the next academic year in line with emerging priorities from the DfE. He offered copies of *Bespoke*, the Maths Hubs newsletter, for those present to take away.

8 Discussion

8.1 GCSE Mathematics

[The presentation slides for this item can be found at http://www.jmc.org.uk/documents/JMC_Council_20170609_8_1_GCSE_Mathematics_-_Ofqual.pptx.]

Janet Holloway (Ofqual) said that Ofqual was concerned about rumours 'out there' about the new GCSEs in English and Mathematics in England and it was seeking help over the summer in getting the facts across; it was also seeking feedback.

Ofqual's role is to maintain and set standards, to align standards between boards and subjects, and to promote public confidence – one way it did this was through its blogs, and Janet Holloway asked whether teachers knew about the blogs, whether the blogs told enough about the right things

Janet Holloway said that Comparable Outcomes will be the main principle for awarding this summer; it is operationalised through the use of statistical prediction tempered by senior examiners' consideration of learners' work. Comparable Outcomes is prioritised on first awards due to the observed sawtooth effect wherein there is a drop of performance by learners in the first years of new specifications. The key grade for the new GCSEs are 7, 4 and 1, all of which will be decided using Comparable Outcomes

(the other grades will be determined arithmetically), this will be at qualification level not component level; uniform marks will not be used. Janet Holloway went on to explain how Comparable Outcomes worked (she added that in future years it may make use of the National Reference Tests). She explained that learners in the reference year were divided into octiles of performance at Key Stage 2 and their GCSE grades used to create a grade profile for each octile; then for an award in the current year an overall grade profile is produced weighted according to the proportion of the entry in each octile at Key Stage 2; this is then modified to take into account changes in the cohort, e.g. that in 2017 post-16 learners are likely to be sitting the legacy specifications.

Janet Holloway also alerted the Council that a new set of analyses that will be published on results day in August 2017 (in addition to the JCQ figures) including an explanation of key results and a centre variability analysis.

Janet Holloway then addressed tiering, there will be common items between the tiers, at least 20% of the marks, to aid alignment of grades. A process of tier equating would be used: the percentile of the cohort at each total score on the higher tier would be found, the score with the same percentile for higher tier candidates on the common items would then be found, the percentile of foundation tier candidates with the same score would then be found, then the total score on the foundation tier with the same percentile would be found, this foundation tier score would be taken to equate to the higher tier score.

Jennie Golding asked whether, when equating between the tiers, consideration would be given to possible differences of mark profile on the common items between the tiers. Janet Holloway said that many evaluation activities were planned, including teacher evaluation meetings. Charlie Stripp put forward an alternative model for tiering using a ladder of papers. The Chair observed that at present tiering was virtually impossible to get correct. Janet Holloway asked whether the Participating Societies and Observing Societies would be doing their own evaluations and she asked them to share their plans for any formal evaluations with Ofqual, which she added would be inviting organisations to future events as part of the evaluation.

The Chair thanked Janet Holloway for leading the session.

8.2 Chartered College of Teaching

[The presentation slides for this item can be found at http://www.jmc.org.uk/documents/JMC_Council_20170609_8_2_Chartered_College_of_Teaching.pptx.]

Julia Flutter (Chartered College of Teaching) began by giving the background to and context for the establishment of the Chartered College of Teaching (CCT). It had been given £5 000 000 from the DfE in seed funding.

Julia Flutter said that those working to establish the college had started by listening to the profession through surveys and focus groups. The message was that the profession wanted quality and relevance, access to research, bringing teachers together as a collaborative community, support for teacher wellbeing and a collective voice for the profession. Teachers who join the CCT will gain access to over 2000 journals through EBSCO and receive the *Impact* magazine; they will also have access to a programme leading to Chartered Teacher status and be able to participate in regional networks, including local networks (meeting physically), thematic networks (online); regional hubs will hold larger events, working with higher education institutions and the larger Multi-Academy Trusts (MATs).

Julia Flutter said that the CCT was promoting membership of subject associations; she said that only 8% of those who have joined so far are members of a subject association, so there was no significant competition with subject associations for members.

Sue Pope asked whether the networks would compete with the meetings held by branches of subject associations. Julia Flutter replied that they were hoping to point members to local branches of subject associations and they hoped to align with their activities, she said the CCT should be active in finding out what activity was already taking place. Jennie Golding and Sally Barton added their concerns and hopes on this issue.

Sue Pope expressed concern that only teachers in schools and colleges could become full members and that Affiliate Membership was perceived as inferior membership. Julia Flutter responded that Professional Affiliates had the same benefits but could not vote.

Julia Flutter continued that Chartered Teacher status was not an endpoint but a step towards Distinguished Teacher status and then Fellowship of the Chartered College of Teaching. Sally Barton asked whether the college was working with school leaders on valuing Chartered Teacher status. Julia Flutter said there was pressure from some schools and MATs to sign up all their teachers.

Julia Flutter said that the CCT had published draft 'Chartered Teacher Professional Principles' with an online survey for responses. The principles covered three domains: Professional knowledge and understanding, Being a teaching professional, Professional practice.

The Chair asked how we make the Chartered College of Teaching a priority for teachers and thanked Julia Flutter for leading the session.

9 Any other business not elsewhere on the agenda

None.

10 Conclusion

The Chair thanked everyone present for their contributions and closed the meeting.

Summary Minutes of the Executive Committee meeting held at the Royal Statistical Society on Friday 9 June 2017

Present Paul Glaister (Chair), Peter Thomas (Honorary Secretary), Paul Harris (Honorary Treasurer), Sally Barton, Sue Pope and David Pritchard (visitor).

1 Previous Business

1.1 **Previous Meeting** The minutes of the previous meeting were approved.

1.2 **Actions** The action points from the previous meeting were reviewed. Most had been completed and progress on the others was discussed. The paper on Secondary ITE was now with NCTL and further opportunities will be sought to make it widely known.

It was agreed that all open actions would be transferred to the CIO.

1.3 **Matters arising not elsewhere on the agenda**

The Chair reported that the meeting of a group from JMC with NCTL would now take place on 19 July 2017.

2 Transition from the Joint Mathematical Council of the United Kingdom (uJMC) to The Joint Mathematical Council of the United Kingdom (CIO)

2.1 **Solicitors** The conclusion of the engagement of Hewitsons LLP was noted.

2.2 **Run-off Insurance** It was agreed that run-off insurance (for claims against the old JMC once it had been dissolved) was not needed.

2.3 **Bank Accounts** It was agreed that all four of the uJMC's bank accounts should be closed as soon as possible (subject to the decision of the SGM and the opening of the corresponding CIO accounts) and that the target date for winding up the uJMC would be 31 July 2017.

3 Any other business not elsewhere on the agenda

None.