

# Joint Mathematical Council of the United Kingdom

## Minutes of the meeting held at the Royal Statistical Society on Tuesday 8 November 2016

### Present

#### *Officers*

Chair	Paul Glaister
Honorary Secretary	Peter Thomas
Honorary Treasurer	Paul Harris

#### *Representatives of Participating Societies*

Adults Learning Mathematics	David Kaye (deputy)
Association of Mathematics Education Teachers	Helen Farmery
Association of Teachers of Mathematics	Sue Pope
British Society for Research into Learning Mathematics	Hilary Povey
British Society for the History of Mathematics	June Barrow-Green
Conference of Heads of Departments of Mathematical Sciences	–
Edinburgh Mathematical Society	David Pritchard
Institute of Mathematics and its Applications	Chris Chipperton
London Mathematical Society	Alice Rogers
The Mathematical Association	Jennie Golding
Mathematics in Education and Industry	David Holland (deputy)
National Association for Numeracy and Mathematics in Colleges	Sally Barton
National Association of Mathematics Advisors	Matt Lewis
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	–
United Kingdom Mathematics Trust	Bill Richardson
Wales Institute of Mathematical and Computational Sciences	Sofya Lyakhova

#### *Co-opted Members*

Chair of the BCME Committee	David Martin
Immediate Past Chair	–
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]	–
Education Scotland	Lorna Harvey
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	Alison Tonkin (deputy)
The Royal Society	Rosalind Mist (deputy)

#### *Visitors*

Advisory Committee on Mathematics Education Secretariat	Niamh Mc Mahon
Advisory Committee on Mathematics Education Secretariat	Jennifer Panting (afternoon only)
Department for Education and Skills [Wales]	–

## 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 as laid down in the contract for the booking of the premises at the Annual General Meeting which immediately preceded the Council meeting, he did not read them out again.

1.3 **Apologies for absence** Apologies for absence were received from Matt Bulmer (NCTL), Jeff Evans (ALM), Catherine Hack (HEA), Julie Harris (DE), Janet Holloway (Ofqual), Jane Imrie (NCETM), Stephen Lyon (STEM Learning), David Montagu (The Royal Society), Tim Rowland (Immediate Past Chair), Neil Sheldon (RSS), Charlie Stripp (MEI) and Charlene Timewell (ORS).

## 2 Minutes of the meeting held on Tuesday 14 June 2016

2.1 **Approval** The minutes of the meeting held on Tuesday 14 June 2016 were approved.

### 2.2 Matters arising not elsewhere on the agenda

**5.3 The Mathematical Association** Bill Richardson said that the two new Honorary Members of The Mathematical Association had accepted their invitations and could now be named; they are Dame Celia Hoyles and Sir Michael Atiyah.

**9 Discussion: Pedagogy for Secondary Mathematics Teaching** The Chair said that Ros Hyde and Alison Clark-Wilson will continue to develop a paper based on the discussion. He added that the paper had been discussed at the Executive Committee meeting earlier that day; the paper may feed into the work of the reformed ACME. He said that it had also been agreed to seek another meeting with NCTL.

## 3 Reports from JMC Executive Committee

3.3 **Honorary Treasurer** The Honorary Treasurer said he had nothing to add to what he had said at the Annual General Meeting. The Chair invited questions. The Honorary Treasurer asked representatives to note the increased subscription rates that had been approved at the Annual General Meeting.

3.1 **Chair** The Chair reported on his activities since June 2016. The Chair has engaged in a range of activities, along with meetings with organisations and representatives, as well as attending and speaking at meetings and conferences, pertinent to the work of the JMC. The following is not an exhaustive list but comprises the main activities:

- Post 16 Mathematics and the Post 16 Review – meetings with: Dr Simon Gallacher, Head of Quantitative Skills and Director of the Q Step Programme, Nuffield Foundation; Sir Adrian Smith re: Post 16 Review; Post 16 Review Team; IMA Schools & FE Committee; CBI. Attendance at: three DfE Stakeholder workshops on the Post 16 Review led by Sir Adrian Smith. Presenting at three Maths Hubs Conferences.
- ACME – termly liaison meeting. Reformed ACME – meetings with: Education Secretary, LMS; Education Secretary IMA; Alex Halliday, Chair, ACME; CMS representatives (twice); CMS, ACME, The Royal Society; CMS Board.
- Speaking at Conferences – RSS Event on ‘Statistics across the curriculum: are we preparing young people for the data revolution?; HE Capita Conference on Admissions to HE; Policy Forum for Wales (Westminster Education Forum).
- Attendance (by invitation) at: Parliamentary Links Day at Houses of Parliament; Royal Society Summer Science Exhibition; July and October National Maths Hubs Forum; Professional Development Seminar, University of Cambridge; Underground Mathematics Event.
- NCTL Stakeholder meetings re: TSST.

There were no questions of the Chair.

3.2 **Honorary Secretary** The Honorary Secretary said that, since writing his report, information about the reformed GCSE Mathematics in England had been circulated, at the request of Ofqual, to representatives with a request for onward circulation to teachers. He also reported that a substantive response had yet to be received from the Charity Commission for England and Wales to our application to become a CIO, and in consequence (as the CIO had yet to come into existence) the contingent arrangement for a General Meeting of the CIO did not need to be activated.

## 4 Reports from other committees and working groups

4.1 **BCME Committee** David Martin, Chair of the BCME Committee, said that the BCME website was now up and further pages would be added in due course. The contract with the University of Warwick was ready to sign and was awaiting resolution of some issues relating to VAT. He made two requests. He asked how BCME9 should link to ICME13 and ICME14 (he mentioned that Alison Clark-Wilson would lead a panel session linking to ICME13). He also asked for ideas and contact names for possible sponsors. The Chair encouraged all to look at the BCME website and suggested the use of rolling pictures to represent different sessions rather than a single static image.

4.2 **ICME Bursaries Committee** Hilary Povey said that each of the twelve applicants had received a bursary of £400.

- 4.3 **GCSE Working Group** Sue Pope (Convenor of the Working Group) said that the group had met with DfE and Ofqual; the DfE assured the group that it was aware of the issues the group raised; Ofqual said that it was planning a communications strategy regarding the new GCSE in Mathematics. The group would like to find out what is happening with entries, including how the two tiers are being used, but invited others to contact her with their concerns. She mentioned that the group had only met once.

## 5 Reports from Participating Societies

- 5.1 **Association of Mathematics Education Teachers** Helen Farmery presented the report that had been written by her predecessor, Ros Hyde. Helen Farmery asked if anyone was aware of any work on the quality assurance of Subject Knowledge Enhancement courses. She noted that there had been changes to the bursary arrangements with a small increase in the value of the scholarships but now no bursary for those with third class degrees. Centres of Excellence have been put on hold. There were mixed messages about the relationship of inspection to the allocation of places. AMET is trying to get Maths Hubs to engage with HEIs and it is looking to see Maths Hubs carrying out research in primary education.

The Chair asked that NCETM make Maths Hubs aware of AMET's interest in links with HEIs. Steve McCormack said that NCETM had encouraged such links and some relationships were strong whilst others were still developing. The Chair said that the issues with ITE were scary and he hoped that the new ACME would take this on and engage with DfE and NCTL. Matt Lewis said that NAMA is a national partner with the Maths Hubs, it collaborates with the Assistant Directors and holds CPD meetings in each of nine regions two or three times a year; these could be forum for HEIs to engage with the Maths Hubs.

David Kaye pointed out that Subject Knowledge Enhancement also took place in the post-compulsory sector, through colleges and training providers, and the needs of the sector should be remembered. Jennie Golding asked about the quality assurance of Subject Knowledge Enhancement in the post-compulsory sector. David Kaye said that provision was not standardised and there was no system of quality assurance.

Niamh Mc Mahon said that Tom McLeish and Alex Halliday (The Royal Society's Chair of Education Committee and Physical Secretary, respectively) have discussed the quality assurance of Subject Knowledge Enhancement and will be making representations on the issue. The Chair said that the TSST is trying to agree a quality assurance framework. Rosalind Mist asked what a good quality assurance process would look like; she said that this was also an issue in other subjects (and the Institute of Physics is already accrediting Subject Knowledge Enhancement courses); should it be done by NCTL or by the community? The Chair said there was a need to involve other subjects.

- 5.2 **Institute of Mathematics and its Applications** Chris Chipperton said that Year 4 had seen a notable increase in applications for and awards of Mathematics Teacher Training Scholarships. There had been a general improvement in the standard of applicants. He also drew attention to the follow-up activities for scholars. Up to 24 October 2016 there had been 26 applicants for Year 5 of the scheme.

Chris Chipperton also spoke about the responses the IMA had made to consultations on Functional Skills being carried by Pye-Tait on behalf of the government and he expressed concerns that the outcome is looking too content-led. Niamh Mc Mahon said that Pye-Tait had won the contract for the next stage of the review of Functional Skills; it was seeking subject expert writers, with applications closing in the next week, and for reviewers of the output of the writers, on a longer deadline.

Alice Rogers asked about the Mathematics Teacher Training Scholarships: whether in the Management Group, which is chaired by NCTL, there was the opportunity to raise other issues than the ones it had put on the agenda? She was concerned that if schools were to promote mathematicians becoming teachers then should the community being created be wider than just those on the Scholarship programme. She had in mind teachers who were keen on mathematics, but perhaps found themselves isolated in their schools, and pointed to the 'Math for America' programme which is well-funded.

- 5.3 **National Numeracy** Derek Huby presented the report which had been written by Mike Ellicock. There was good news. National Numeracy had launched its new app 'Star Dash Studios'; it was targeted at 16 to 25 year-olds who are currently disengaged from mathematics and aims to get them to play a game in which mathematics is incorporated naturally. National Numeracy is working with the Cambridge Mathematics project looking at the mathematical essentials for fourteen year-olds. There was also bad news. National Numeracy was unhappy with the line being taken in the Functional Skills Review; the present draft is very content-heavy, it is a long shopping list of content, the functionality has gone out the window and it is now watered down GCSE; this was extremely worrying and potentially damaging.

The Chair asked if the decision about Functional Skills had already been made. Derek Huby said that currently submissions were with Ministers.

Sue Pope asked about National Numeracy's work with the Cambridge Mathematics project. Derek Huby said that the Cambridge Mathematics project was a long-term project under the leadership of Lynne McClure; it was conducting a mapping exercise to map mathematics with the aim of producing a multi-dimensional map of topics and connections and resources; it was looking at cutting-edge data representation; it would be a resource for curriculum developers, schemes of work and writers of textbooks; one element was what was the essential mathematics for a fourteen year-old to know and be able to use.

The Chair said that he had recently visited four Russell Group universities, as part of his work as an ambassador for Core Maths, and all had said that over several subjects that many students with a good grade in GCSE Mathematics cannot use, with competence and confidence, simple mathematics in context.

- 5.4 **NRICH representing the Millennium Mathematics Project** Ems Lord said that she wished to highlight two points in the NRICH report. To help ensure NRICH's resources are well used and used well, NRICH has established a project with NCETM to create NRICH Ambassadors who will be trained local volunteer contacts; the scheme is being piloted with the Cambridge and Archimedes Maths Hubs, it will then be widened. NRICH now includes people working on an online STEP support programme which provides weekly problem assignments from June onwards with feedback to guide and build confidence; this is being undertaken by Claire Metcalfe (who has worked on a previous correspondence course for STEP preparation) and Alison Kiddle.

Jennie Golding commented on the frequent references to Maths Hubs; some are doing fantastic work but they are not reaching all schools and it is important to maintain parallel routes for communications with teachers.

- 5.5 **Wales Institute of Mathematical and Computational Sciences** Sofya Lyakhova said that more university departments are employing outreach coordinators. Swansea is acting as a hub for the FMSP Wales which has government funding to cover the whole of Wales. FMSP Wales is now officially providing support for STEP, AEA and MAT preparation using resources from MEI and the FMSP England; it would like to embed this work more in schools and wanted to get more teachers taking part. WIMCS is looking to support Further Mathematics and is looking to see what works, including the blended learning approach used by the FMSP Wales; this outreach leads to work in mathematics education and is involving teachers in research.

On 3 November 2016, the National Network for Excellence in Mathematics was established in Wales. It will build on the reports published in Wales in the last few years which have called for improvements to teacher training and mathematics education research. Traditionally, HEIs have not been part of cpd in Wales. The aim is to build a network with all working together. There are problems in interpreting some reports in subject contexts, for example there is a danger that the Donaldson Report could be interpreted as calling for only the application of mathematics to be taught. No work has been done on its implementation within subjects. The NNEM is looking to carry out action research on excellent teaching of mathematics.

David Pritchard pointed out that NCTL only covered England so it was not appropriate to rely on it to provide details of all JMC member organisations.

## 6 Reports from Observing Societies

- 6.1 **Advisory Committee on Mathematics Education** Jeremy Hodgen invited questions on the written report but said that the afternoon discussion would be on the future work of ACME. The Chair invited questions on ACME's current work; there were none.
- 6.2 **National Centre for Excellence in the Teaching of Mathematics** Steve McCormack said that over half of schools have engaged so far with Maths Hubs.

He said that the consortium of Tribal and MEI is the preferred bidder for the National Mathematics Education Centre, which will be called the National Centre for Excellence in the Teaching of Mathematics. (The contract started on 1 November 2016 but has yet to be signed, the consortium is different from that which ran the National Centre for Excellence in the Teaching of Mathematics until 31 October 2016 which also included MyScience/STEM Learning and the UCL Institute of Education.) The contract is for three years with a possible extension for a further two years. The government announced £41 000 000 in July to support teaching for mastery in the primary phase; Maths Hubs have core funding for the next three years. NCETM is to manage the Maths Hubs programme, it will support the Maths Hubs to deliver improvements in primary schools through teaching for mastery; it will also support cpd and workforce development. NCETM is about to launch a new area of its website

to keep teachers (and especially heads of department) up-to-date on curriculum and qualifications. There will be six national coordination teams for Maths Hub leads to lead in different areas of mathematics education; they will ensure that communications with the Maths Hub network are aligned with communications from NCETM.

Sue Pope asked for an update on the situation with Core Maths and the Level 3 Leads. Steve McCormack said that every Maths Hub had a Level 3 Lead (and a Teaching for Mastery Lead) but they are very new. They will start to take over management of Core Maths at local hub level from the Core Maths Support Programme during this academic year. The Level 3 Leads will meet in December and then in the spring when Adrian Smith will address them on his review of post-16 mathematics.

Sally Barton asked how successful the hubs were in both directions, as well as disseminating messages to schools, does information flow uphill about local needs. Steve McCormack said that Maths Hubs have flexibility to address local needs and the national forum of Maths Hubs Leads is an occasion on which discussion of needs makes clear wider need and may lead to a national project.

Steve McCormack concluded by saying that certainty of funding will help with the work of NCETM.

## 7 Reports from meetings

7.1 **National Maths Hubs Forum, 13 – 14 July 2016** The Chair encouraged societies to support the work of the Maths Hubs.

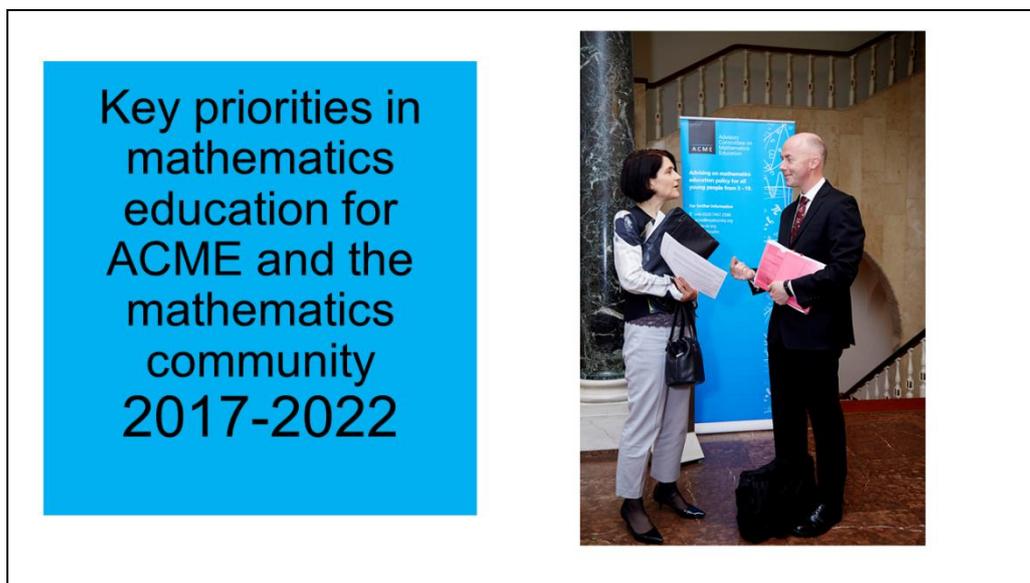
7.2 **Council for Subject Associations: Meeting with the College of Teaching, 26 August 2016** Sue Pope said the meeting was about how the subject associations could work with the new College of Teaching, particularly with regard to Chartered status. A group was to be established to work on the issues but nothing had been heard.

Sue Pope also raised the issue that the CfSA is being used by ITE providers to reach subject organisations and there is nothing on the JMC website about what to join as a teacher. The Chair said that JMC had fed into the NCTL document in which all organisations were invited to explain what they had to offer; it was not the JMC's role to point people to joining particular organisations. Sue Pope asked that the JMC website could have a link to that document. The Chair said it could. David Pritchard pointed out that out-sourcing to NCTL only covered England. The Honorary Secretary said that the website could have added very brief descriptions of each organisation. It was agreed that this would be done and that he would approach societies to request such a description and an appropriate link.

7.3 **OCR: Mathematics Consultative Forum, 19 October 2016** David Martin said that OCR's presentations were awaited and would be circulated. He said that the date of the next meeting had yet to be announced.

## 8 Discussion: Key Issues for mathematics education and what this means for ACME's priorities in the years ahead

Rosalind Mist began by giving a presentation giving the new context for ACME; below are the slides from the presentation.



## Advisory Committee on Mathematics Education

- ACME to be **seen by government and others as the trusted body on mathematics education.**
- ACME is a **committee of the Royal Society, working closely with the JMC and the CMS.**
- ACME will bring together those with **high-level and strategic expertise in mathematics education research and experience in the classroom, as well as those from other disciplines with quantitative needs and broader fields.**
- **Expert panels** will provide a key source of expertise for the redefined ACME. The JMC and CMS will harness the expertise of the mathematics community to convene curriculum and qualification expert panels, which will systematically review curriculum and assessment arrangements in England.
- An **evaluation** of the progress of the redefined ACME and the activities undertaken by the expert panels on curricula and qualifications will be undertaken **after five years.**

## Chair, members, expert panels and reference groups

- **CHAIR:** The Chair is a Fellow of the Royal Society. The Chair will represent the Society on mathematics education both internally and externally.
- **MEMBERS:** There will be a membership of **up to 12 individuals** that are respected and trusted in their own field, have experience of high-level and strategic thinking and delivery, are well networked and with awareness of the education and wider policy landscape. The Committee should have a balance of expertise from across all phases from early years through to further and higher education. (Call for teachers to be published next week in TES, THE, Schoolsweek etc.)
- **JMC:** The JMC Chair will have a **standing position as JMC representative** and the JMC Executive may propose a second member. The mathematics learned societies and professional can propose members for the consideration of the Royal Society.
- **EXPERT PANELS:** Expert panels on mathematics curricula and qualifications will be a key source of expertise on mathematics curricula and qualifications for the Royal Society. Depending on expertise and priorities agreed, members of ACME may chair expert panels, such as those proposed on curricula and qualifications.
- **REFERENCE GROUPS:** Teacher and senior leader reference groups drawing on the already established ACME Outer Circle, as well as Royal Society programmes such as Partnership Grants, the Associate Schools and Colleges Scheme and Science on Stage and the JMC networks.

## Your challenge

What would your top policy priority be for ACME?

- For the next 1-2 years?
- Over 5 years?

And

What might be included in a feasible work programme?



## Some areas for development?



- (1) Mathematics education research
- (2) Data skills needs of the future and impact on teaching and learning
- (3) Innovative solutions on teacher supply, teaching and professional development
- (4) 'Mathematics for all' – what should we be doing on technical and vocational education?
- (5) Curriculum development and monitoring
- (6) Potential of technology in mathematics teaching, learning and assessment

## Scope of ACME

1. The **supply of mathematics teachers** and the **education and professional development** of teachers.
2. The mathematical and quantitative knowledge and skills set out in **curricula and qualifications within and beyond the mathematics classroom**.
3. The **processes for developing and reviewing mathematics curricula, qualifications and assessment** and the **evidence base and expertise** required for such development and review.
4. The mathematical and quantitative competency needed by **business, industry, the third sector and government**.
5. The mathematical and quantitative skills needed by **higher education institutions**.
6. **Cultural attitudes** towards mathematics in schools and colleges.

Rosalind Mist also announced that there would be an open call for new members of ACME in the next week.

Alice Rogers asked how the work of the new ACME related to The Royal Society's Vision Project and whether there would be a proactive approach to the curriculum. Rosalind Mist said that Vision governs The Royal Society's work in education and it had asked CMS to consider the establishment of an Expert Panel on the curriculum. There was a need to look across all issues, not just curriculum and assessment; the new ACME is not the NMSC.

Jennie Golding asked about the security of funding for ACME. Rosalind Mist replied that it was secure until the end of the current funding round, although it may need extra to undertake projects but the DfE may fund these to get answers to specific questions.

Jeremy Hodgen then introduced the discussion. He asked those present what their top priority was for ACME over the next one to two years and over the next five years, and what is a feasible programme to address those priorities. There followed three-quarters of an hour of discussion in three groups from which there was feedback on paper and verbally in a plenary session. The following points, additional to those in the written feedback, were made verbally.

### GROUP 1

The group started by identifying teacher quality and supply at all levels, and then talked about what changes could make an impact on middle-level policy and focused on Core Maths.

- Find ways of embedding Core Maths in the curriculum
- Make it the expectation that those progressing to higher education have taken Core Maths (or GCE Mathematics)
- Find ways to incentivise provision of Core Maths

- Develop courses (mathematics and subject-specific pedagogy) for teachers who are effective in their own discipline so that they can teach Core Maths (to help address the teacher supply issue)
- Identify the levers to put in place to ensure all have an entitlement to Core Maths

#### GROUP 2

- Teacher retention
- Stability of the curriculum
- How best to teach mathematics
  - Technology
  - Textbooks
  - ITE – finding out people's motivation to teach

#### GROUP 3

Clear message to ministers:

1–2 years:

- Improve how mathematics is taught in early primary
- Ensure KS1 teachers have the necessary pedagogy and understand mathematics at KS1 and KS2 in its full content and complexity

5 years:

- Teacher retention
  - Permanent structural change to schools to achieve retention
  - Find out what are the issues about retention

After all the groups had fed back there was some general discussion in which the following points were made.

- Do we want stability with the present primary curriculum which was described as being age-inappropriate?
- Need to look at teacher supply as a whole not just focus on one issue such as retention, we need a better understanding of the issues.

The Chair thanked Rosalind Mist, Jennifer Panting and Jeremy Hodgen for leading and facilitating the discussion, as well as all who had taken part in it.

#### 9 Any other business not elsewhere on the agenda

None.

#### 10 Conclusion

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

#### 11 Dates of future meetings

Tuesday 28 February 2017

Friday 9 June 2017

Tuesday 14 November 2017

These meetings will be held at the Royal Statistical Society and begin at 1100.

### Summary Minutes of the Executive Committee meeting held at the Royal Statistical Society on Tuesday 8 November 2016

**Present** Paul Glaister (Chair), Peter Thomas (Honorary Secretary), Paul Harris (Honorary Treasurer), Sally Barton, Sue Pope and Hilary Povey.

#### 1 Previous Business

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

#### 1.2 Decisions since the previous meeting

1.2.1 **Membership of the Programme Committee of the BCME Committee** (*confirmed by the Chair 4 October 2016*) The BCME Committee of the JMC was given permission by the JMC Executive Committee for the inclusion of Administrators from both the ATM and the MA on the Programme Committee. The previous provision was for just one of these two on the Programme Committee,

however, as administrative responsibilities related to the programme are now expected to rest with both ATM and the MA it was felt by the BCME Committee that representation from both ATM and the MA Administration on the Programme Committee would be better. Though much work has been completed by the Programme Committee electronically it is recognised that this may incur a small increase in travelling expenses in the lead up to BCME9.

1.3 **Actions** The action points from the previous meeting were reviewed. Developments regarding both ACME and a NMSC were considered. The next steps with the paper on Secondary ITE following discussions at the Council meeting on 14 June 2016 were considered. That a substantive response had yet to be received from the Charity Commission for England and Wales to our application to become a CIO was noted.

1.4 **Matters arising not elsewhere on the agenda** None.

## 2 Committees

2.1 **BCME Committee** The report from the Chair of the BCME Committee was considered and the progress in preparations for BCME9 was noted. Consideration was given to how plenary speakers should be styled, the impression given by the images used on the BCME website and the tax arrangements for BCME.

2.2 **ICME Bursaries Committee** The work of this committee was reviewed with a view to improving arrangements for bursaries in time for ICME14 in 2020.

2.3 **GCSE Working Group** The Executive Committee was updated on the work of the GCSE Working Group, including successfully engaging with DfE and Ofqual.

## 3 Charitable Incorporated Organisation

This was considered in item 1.3.

## 4 ACME and the National Mathematics Subject Committee

This had been considered under item 1.3 but was considered further, including the future membership of ACME.

## 5 Future Business

5.1 **Dates of future meetings** meetings of the Executive Committee and the Council are to be held on Tuesday 28 February 2017, Friday 9 June 2017 and Tuesday 14 November 2017.

5.2 **Future presentations and discussions at Council meetings** At the meeting on 28 February 2017 Sue Gifford will lead a discussion on Mathematics Education in the Early Years. Consideration of discussions at subsequent meetings was deferred until the next meeting.

## 6 Any other business not elsewhere on the agenda

6.1 **Co-options to the Executive Committee** It was decided to make no co-options as it was hoped that the present unincorporated society would soon be dissolved following the establishment of the JMC as a CIO.