



Advisory
Committee on
Mathematics
Education

Working Methods of the Advisory Committee on Mathematics Education (ACME)

Background

ACME was established in January 2002 by the Royal Society and the Joint Mathematical Council (JMC), with the support of the Gatsby Charitable Foundation. This document formalises ACME's working methods, outlined in the original proposal to establish the Committee approved by the Executive Committee of JMC and subsequently by the Council of the Royal Society. It will be revised at least every three years, to coincide with new funding arrangements. This version of the working methods represents a review undertaken between November 2008 and February 2009.

Mission

There are two versions of the ACME 'mission statement':

Full version

The Advisory Committee on Mathematics Education (ACME) is an independent committee, based at the Royal Society and operating under its auspices, which acts as a single voice for the mathematical community on mathematics education issues, seeking to improve the quality of such education in schools and colleges. It advises Government and other policy makers on issues such as the curriculum, assessment and the supply and training of mathematics teachers. ACME was established by the Joint Mathematical Council of the UK and the Royal Society, with the explicit support of all major mathematics organisations, and is currently funded by the Gatsby Charitable Foundation and the Department for Children, Schools and Families (DCSF).

Brief version

The Advisory Committee on Mathematics Education is an independent committee, based at the Royal Society and operating under its auspices, that acts as a single voice for the mathematical community on mathematics education issues, seeking to improve the quality of such education. ACME was established by the Joint Mathematical Council of the UK and the Royal Society, and is supported by the Gatsby Charitable Foundation and the Department for Children, Schools and Families (DCSF).

Note: ACME deals with 5-19 mathematics education in England, but always maintains a close interest in policy and practice taking place in, and of relevance to, the rest of the UK. In addition, ACME also monitors issues which happen beyond 19, as there are often implications on policy affecting the 5-19 focus of the committee.

Legal / financial status

ACME does not exist in a legal sense as an independent body. It is not, for example, incorporated by guarantee nor does it have charitable status in its own right. Therefore ACME may not enter into legal contracts nor order or purchase goods or services in its own capacity. The Royal Society undertakes such actions in order to facilitate the work of ACME. The Royal Society receives and administers the funds for the work of ACME and makes available the services of members of Royal Society staff to manage a Secretariat to ACME.

Thus the work of ACME is subject to the Royal Society's internal operational and financial (including audit) procedures and regulations.

The nature of the relationship between ACME and the Royal Society means that the Society is currently judged to have legal responsibility for ACME. Thus, for example, the Society would be held accountable to any Court proceeding or damages claim brought as a result of the work of ACME. In the eyes of the law, ACME is no different to a Committee of the Royal Society. Acknowledging this legal fact, but also mindful that the work and opinions of ACME must be independent of any individual mathematical society for it to succeed, the rest of this paper describes the key ACME working methods.

Chair / Membership

Membership

There will be a Chair and at least six members of ACME at any one time. The term of appointment for the Chair and ACME members will usually be 3 years (there will be a probationary period of one year for members, after which service will normally be extended) and no member (including the Chair) may serve consecutively for more than 6 years. A minimum of three years outside of ACME membership will be required before ex-members will be permitted to re-join. Rotation of membership will be used to ensure that there is an appropriate balance of new and continuing members at all times. It would be expected that at least 2 members of the Committee retire every 2 years, though the timing of this may depend on any changes of members' circumstances.

Chair

The Chair of ACME will be someone of international standing. The Chair will normally be a 'user' of mathematics rather than a mathematician and, as a guide, the Chair should be a Fellow of the Royal Society or of similar calibre. The Chair of ACME will be appointed by the Council of the Royal Society after consultation with existing ACME members and the JMC Chair (who may, in turn, consult the JMC Executive). The Chair may claim reasonable out-of-pocket expenses for the work he/she does for the Committee. The Chair will appoint a deputy to represent them in their absence at committee meetings, and at other ACME-related activity.

Members

Members will be selected considering the overall balance of the committee, and on the basis of criteria recommended by the mathematics community including: willingness to serve on ACME and ability to commit the necessary time to ACME work; broad expertise and recognised status; involvement in established networks (such as membership of professional bodies) to allow wide consultation and dissemination; track record in writing, leading projects, and communicating to diverse audiences; and open-mindedness and the ability to work as part of a co-operative team. The members of ACME will serve as individuals and not as representatives of any organisation or interest group.

Members will have sufficient stature within the community that their views carry weight. ACME collectively aims to have expertise in mathematics and mathematics education at all levels from Early Years up to the start of Higher Education, including the mathematical needs of employment, and in the education of teachers of mathematics. Insofar as is feasible for a small group, it should seek to have a balanced representation across phase, region, gender and ethnicity.

Appointments of Members:

The names of potential members of ACME will be canvassed from the mathematical community via the JMC and its member organisations. In addition, ACME will make an Open Call with a deadline for submission of names of not less than 6 weeks from the date of the call. Any open call will need to take in to consideration that practitioners will need one whole

term's notice to allow schools and colleges to prepare for adequate cover. Other networks may additionally be used if this is felt appropriate by the current ACME members. Potential ACME members will be asked to explain in writing what they feel they will bring to the Committee and how they will manage the time required for ACME work.

For new appointments, an appointment panel will be established, chaired by the ACME Chair and comprising in addition two current ACME members and two members of the JMC Executive, normally excluding those who have been ACME members in the past six years. An additional member from outside of ACME and JMC membership may also be included. The ACME and JMC Chairs will ensure that this panel is reasonably balanced. Following the deadline for submissions, the panel will review the strengths of each applicant and consider to what extent their skills and experience complement those of the continuing ACME membership, inviting short-listed candidates to give formal presentations. The ACME Chair will then recommend a preferred candidate, on behalf of the appointment panel, to the Council of the Royal Society. Given the legal responsibility of the Royal Society for ACME, the appointment of ACME members is formally the responsibility of the Society's Council.

Roles and responsibilities of ACME Chair, Members and Secretariat

The ACME Chair is responsible for representing the Committee and its views at meetings with key players and at profile-raising events; helping to provide an overall strategic guidance for the Committee; networking with high-level contacts in Science, Technology, Engineering and Mathematics to help promote the cause of mathematics education; acting as chair at ACME-organised events. The Chair can nominate a member of the committee or the secretariat as their deputy should the need arise.

Conflict of Interest

In order to avoid any actual or perceived conflicts of interest, members will be asked to declare any personal and prejudicial interests at the beginning of committee meetings relating to the agenda which will be noted in the minutes. The Chair will have the final ruling concerning conflicts of interest.

ACME members are responsible for providing sound, objective advice to the group/Chair; taking the lead on designated ACME projects; contributing to these projects with feedback and other inputs; liaising with designated organisations/individuals in the mathematical community; chairing ACME meetings and events when called to do so; and representing ACME in discussions with policy makers.

Role of the Secretariat

The ACME Secretariat is responsible for the day-to-day administration of ACME business; preparing for and minute-taking at Committee meetings; co-organising ACME events and ensuring that ACME members involved are fully supported and briefed; providing advice on education policy and managing projects; liaising with officials in other key organisations; ensuring that Royal Society financial and operating procedures are adhered to and that ACME finances are in order.

The Head of Secretariat will be responsible for providing strategic and tactical advice to the Chair and members of the committee and will represent ACME at some groups and meetings as agreed by the Chair. In addition, the Head of Secretariat will have responsibility for leading relations with the JMC Executive Secretary.

Members of the ACME Secretariat are employees of the Royal Society and as such are bound by the Society's terms and conditions of employment and ultimately answerable to the Society's Executive Secretary.

Reimbursement of Members

ACME members' employers are normally reimbursed, quarterly in arrears, for the use of 10% of members' working time, which equates to at least 2 days of Committee work per month for each member. The Chair will not be reimbursed. Members may claim reasonable travel and subsistence expenses for attending ACME meetings and events and undertaking ACME business, in accordance with Royal Society regulations. In exceptional cases, members' employers may be reimbursed *pro rata* for additional days work beyond the core commitment, subject to sufficient funds having been allocated and the agreement of the Chair. It would be expected that any such days would be collectively agreed well in advance as part of the planning process for ACME work.

Members' change of circumstances:

If members find themselves no longer able to fulfil their commitments to ACME or if their circumstances change substantially in a way which could affect their value to ACME, it is expected that they will inform ACME and that they will consider very carefully their position on the Committee.

The Work of ACME

Committee meetings

The Committee will meet as often as needed in order to conduct business effectively and Members are expected to do their utmost to attend all meetings once dates have been agreed and diarised. The Chair and/or members will also be expected to attend ACME-organised events in addition to the regular meetings, but in these cases attendance will depend on the particular requirements/availabilities.

Work between meetings

Members will need to set aside reasonable time for work between meetings e.g. for projects and organisation of events. An electronic discussion list will be used as a dissemination vehicle and virtual storage space for documents members might like to have access to electronically.

Seeking external advice

ACME consults with other organisations and individuals within the mathematical and education communities on an 'as needed' basis. A small number of such individuals, chosen collectively by the Committee members to encompass a breadth of knowledge, support and influence, form an 'Outer Circle' and are consulted individually or collectively, in confidence, directly on key issues. Members of the Outer Circle are selected through an annual open call and are normally appointed for three-year terms, with the membership periods suitably phased to allow one third of the Outer Circle to be reviewed each year.

Advising the Government

ACME will offer advice to the Government both directly via the DCSF and DIUS or indirectly via agencies such as QCA, Ofqual and TDA. This advice will be by responses to enquiries and publications; by the publication of reports; and by regular meetings with Ministers, officials and others. Advice will be offered on a non-party political basis.

Confidentiality

To be effective in its dealings with the Government, its bodies and other policy makers, ACME will need, on occasion, to act confidentially. Such confidentiality may also be required from members of its Outer Circle.

Publications of ACME

ACME will ensure that the views of the JMC member bodies are fed into ACME reports, responses and statements at appropriate junctures.

The Royal Society, as the body responsible in law for ACME, will implement a review procedure for all ACME reports, responses or statements intended for publication. In order to do this in a practical way, the Council of the Royal Society will appoint a review panel chaired by a Vice-President and including the Chair of the Society's Education Committee and the JMC Chair (who may consult members of the JMC Executive). The precise process for review will depend on the nature and potential significance of the publication and the timescale available, but the Society is unable to publish any ACME work without the agreement of its Council.

To ensure the independence of ACME is not compromised, review panel members will not be charged with commenting on the thrust of the arguments put forward by ACME. They will, however, be expected to comment on the degree to which these arguments are convincingly made (e.g. the degree to which the arguments are the logical conclusion of available data). The aim of a review panel is to:

- 1) Help ACME to make the material as accurate and as effective as possible and,
- 2) Assure that ACME, the Royal Society, the JMC and ACME sponsors will be credibly represented to the public in releasing the material. No member of ACME, or the group which prepared the material, may be a member of the review panel.

The names of ACME Members, the names of review panel members, and the logos of the JMC and the Royal Society will feature on the publications of ACME, together with appropriate acknowledgement of funding contributors.

Reporting to Gatsby, Royal Society and DCSF

ACME will submit progress reports to the Gatsby Charitable Foundation (on a quarterly basis) and DCSF (three times a year, ahead of termly meetings). Similarly, the Council of the Royal Society has agreed to host ACME subject to the Society receiving satisfactory progress reports. These reports are considered at the Society's Education Committee on whose recommendation the Society's relationship with ACME was established and continues. The Society has also expressed the wish that the Chair of ACME and the Chair of the Society's Education Committee establish informal links to share knowledge, ideas and experience.

Relationship with the JMC

The JMC Chair will attend the three times a year 'termly' meetings of ACME. JMC members are provided with termly and annual reports on ACME's activities, as well as notes of ACME meetings. In addition to the JMC's role in selecting the membership of ACME and the review of ACME publications (see above), members of JMC are consulted when establishing priorities for the work of ACME and at appropriate points throughout major ACME projects. An ACME representative will attend JMC meetings to provide an update on ACME work, obtain feedback and bring along ACME policy work for discussions. The Secretariats of ACME and JMC will meet termly and work closely to enable JMC input to the work of the committee.

Evaluation of the work of ACME

In addition to the formal reports mentioned above, an annual review of ACME is undertaken by the Secretariat each Spring to determine how effectively the Committee has operated in each financial year (April to March). This will be shared with funders. A formal evaluation of ACME by an appropriate outside body is undertaken every 3 years, with a view to determining what overall impact the Committee has had on mathematics education policy over the period of review and receiving advice on how to improve its impact.

Promotion, disseminating information and media relations

ACME's promotion and media relations are managed by the Secretariat with the support of the Royal Society's Media Relations Team, which provides advice on disseminating education policy information, technical expertise on the ACME web pages (hosted on the Royal Society website), as well as channelling a two-way flow of information between ACME members and education journalists. ACME organises regular and one-off events (conferences, seminars, workshops, press launches) designed both to convey its key messages and stimulate debate on the important issues in mathematics education. ACME aims to disseminate relevant information, through for example targeted mail-shots, to the key players in the mathematics education policy arena and to the wider teaching community, including teachers of mathematics, mathematics co-ordinators, heads of mathematics departments and head teachers. The ACME web pages are a key vehicle for promoting the work of the Committee and keeping the mathematics education community informed of policy-related developments. The web pages are held on the Royal Society's server and provide details of ACME's formation, remit, and activities and are updated regularly with edited minutes of ACME meetings and other pertinent information for public knowledge.

ACME's Funding

This document sets out the working methods through which ACME can be given the highest and most effective level of support throughout its third three-year phase for the period April 2008 to March 2011. During this time funding is being provided on an annual basis by the Gatsby Charitable Foundation (greater than 50%) and the DCSF, with support from the Royal Society including: secretariat, media, and IT expertise; hosting meetings; legal status; and any benefits ACME can gain from the Society's significant network of contacts.

The long-term sustainability of ACME is clearly an issue which requires addressing, given that Gatsby funding will come to an end in 2011. The potential for ACME tendering for contracts to provide a minority income stream will be investigated in the coming years. Realistically, support from charitable trusts with an interest in mathematics education will continue to be an attractive source of income for ACME, bringing as it does independence and a relative degree of flexibility. The Committee, and the Royal Society on its behalf, will need to continuously engage with potential funders. However, if long-term Government funding is not considered a viable option, and no significant private funds can be found, then ACME's activity will need to be scaled back. One challenge for ACME will be to engage the mathematics community in open discussion to explore the possibility of a fully publicly-funded ACME. If one accepts that those who benefit from the work of ACME should contribute to its costs, then it seems sensible that in the long term the mathematics community should expect to offer some funds to ACME.

Advisory Committee on Mathematics Education August 2010 (replaces February 2009 version)