



Mr Christopher Baker
Chair
Training and Development Agency for Schools
151 Buckingham Palace Road
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8 February 2010

Dear Mr Baker,

Masters in Teaching and Learning

As chair of the Advisory Committee on Mathematics Education (ACME), I am writing to you regarding the ongoing work to develop the Masters in Teaching and Learning (MTL). ACME welcomes the general move towards providing encouragement and funding for continued study while teaching; making teaching a masters-level career; and making continued professional development an ongoing expectation.

We do, however, have some serious concerns regarding the structure and lack of subject-specific content of the MTL, and do not believe that, as things currently stand, it will necessarily lead to better mathematics teaching¹. There are three key points we wish to bring to your attention:

1. ***It is directed at early career teachers*** – this means teachers will be studying for the MTL at a time when they should be developing basic competence and subject teaching knowledge. There are three problems with this:
 - a. That teachers may be distracted from improving their own mathematics teaching towards other aspects of teaching;
 - b. In their early careers, teachers need to develop a practice-based approach to their work but such a model runs the risk of failing to satisfy QAA requirements for masters-level work;
 - c. Achieving a masters-level qualification in their early career will discourage further study of mathematics teaching at that level (and funding for such courses may not be forthcoming).

¹ In our comments 'subject knowledge' refers to the knowledge required to teach mathematics and encompasses personal subject knowledge, pedagogic subject knowledge, and knowledge about learning mathematics.

2. **The programme is diffuse** – subject knowledge is only one of many profuse topics covered by the MTL and as a result is presented as being secondary to topics which relate to current orthodoxy rather than the improvement of knowledge about mathematics teaching. Subject teaching is treated as the conduit for current policy on collaboration, personalisation and so forth. There is no room for course participants to acquire extensive knowledge about improved mathematics teaching and the subject knowledge required for teaching. Schools using their devolved funding might like the MTL because it embeds institutional professional priorities, but this would ignore national subject priorities such as the need to work on mathematics subject knowledge. School-based coaching which is subject-generic is likely to exacerbate this imbalance.

3. **Research on subject knowledge required for mathematics teaching** – the programme as conceived does not take account of international research over the last decade which has developed our understanding of the nature of subject knowledge required for mathematics teaching. This research makes clear that the school-based model we have of initial teacher training (ITT) – which has many strengths – does not provide enough opportunity to work in-depth to develop mathematics knowledge for teaching. Further study for mathematics teachers must, therefore, provide more opportunity to develop such knowledge. We draw your attention to the recent research report from the Irish Republic, *Knowing What Counts*² and the Cambridge research seminar series funded by the Nuffield Foundation³. A draft of a book arising from this seminar series exists and will be published later this year and much of it relates closely to the English context.

We believe that the unintended but predictable outcome of this programme will be masters-level mathematics teachers whose own subject-specific knowledge and practice has not been developed.

We would value further dialogue with you on these matters, and hope you can find a mechanism for including the wider mathematics community in such discussions in order to ensure the end product is making an effective contribution to improved teaching of mathematics.

Yours sincerely



Professor Dame Julia Higgins FRS FREng
Chair, Advisory Committee on Mathematics Education (ACME)

cc Mr Vernon Coaker MP, Minister of State, Department for Children, Schools and Families

²Available from <http://www.mie.ie/About-MIE/Latest-News/Launch-of-Knowing-What-Counts-Report-2nd-Feb-201.aspx>

³ See <http://www.maths-ed.org.uk/mkit/>