

Masters in Teaching and Learning: SCORE comments

With regard to Continuing Professional Development (CPD) SCORE believes that the purpose of CPD is to maintain and develop the knowledge and skills required for continuing professional practice. As a result SCORE believes:

- all science teachers and technicians should have an entitlement to CPD support from their employers and have an obligation to maintain competence;
- there should be incentives for employers to provide CPD opportunities and for employees to take advantage of these;
- systems for public funding and approval for CPD courses and qualifications should be transparent and straightforward.

Members of SCORE:

- help provide a framework for science teachers and technicians to determine, plan and record their professional development;
- provide opportunities for CPD;
- provide recognition to teachers and technicians through qualified membership, and/or including chartered status, and specialist qualifications;
- ensure and recognise competence in 'licence to practice' and other key areas.

SCORE would strongly support a programme of professional development that bridges the gap in skills and knowledge between beginning teachers and expert teachers. The framework should:

- breakdown the artificial divide between pre-service training and CPD;
- improve teachers subject and pedagogical knowledge in their specialism and in science more generally
- encourage teachers to experiment, innovate and reflect on practice

This should produce the following outcomes:

- maintained enthusiasm for their subject specialism on the part of teachers
- enhanced status of teaching as a career
- greater involvement and engagement of teachers in professional groups thereby contributing not only to their own development but to that of the profession as well.
- sustained teacher engagement in professional development that informs their practice (whether in the classroom or elsewhere)
- richer learning experiences for all young people in schools and colleges.

The Masters in Teaching and Learning (MTL) could be a mechanism that produces these outcomes this but there are a number of issues that need to be resolved.

- a) We believe that subject knowledge, by which we mean the subject content and associated pedagogy, must underpin the MTL and as such we believe it should be a compulsory component of the qualification. In particular, for secondary science teachers there should be opportunity both to broaden and deepen their subject knowledge in teaching outside of biology/chemistry/physics specialism at KS3 and to engage with more advanced work in their given specialism.

- b) Knowledge of subject content is a necessary but not sufficient prerequisite for effective teaching and this should be recognised within the assessment of the MTL. We believe that it would be possible to assess subject knowledge (content plus associated pedagogy) at M-level. For example, to teach electric current effectively one needs to understand electric charge and fields; misconceptions about electricity; relevant teaching approaches and how to combine these understanding to help children learn.
- c) The assessment of the MTL must be rigorous and at a level commensurate with other masters' qualifications; however, the assessment must not distract from the aim of the qualification, which is to improve standards of teaching and learning in the classroom.
- d) The plethora of government and other initiatives with accompanying support and resources have diminished the time and inclination of teachers to participate in their subject communities. The MTL needs to find a way of recognising and valuing this activity. It would be a grave error if the qualification is effectively a portfolio of attendance on accredited courses
- e) The MTL is a qualification; if the longer term aim of raising the profile of CPD is to be achieved the MTL needs to mesh with existing schemes, such as Chartered Science Teacher, that demand teachers' continued engagement in CPD.

SCORE and TDA

We are certain that none of the issues identified above are insurmountable and would welcome an opportunity to discuss how SCORE might play a role in helping to resolve them.

SCORE is planning a series of seminars on the routes to specialist science teacher. We very much hope that representatives of the TDA will be able to attend these seminars and wonder whether a TDA representative might lead one of the seminars looking at the role of the MTL in developing specialist teachers.

About SCORE

SCORE is a partnership between the Association for Science Education, the Biosciences Federation, the Institute of Biology, the Institute of Physics, the Royal Society, the Royal Society of Chemistry and the Science Council. SCORE aims to improve science education in UK schools and colleges by harnessing the expertise, influence and resources of key independent organisations to support the development and implementation of effective education policy and projects.

SCORE's comment on the Masters in Teaching and Learning is drawn from SCORE members' significant experience of supporting professional development and, and wide consultation among the science and education communities. This position will continue to evolve – see www.score-education.org for more information or e-mail score@score-education.org.