



The ATSE response to the DCSF ITT Inquiry

Association of Tutors in Science Education (ATSE): a response to the DCSF Inquiry into Teacher Training

A digest of the document submitted as an appendix to the ASE response to the inquiry, compiled in February 2009 by the ATSE Committee.

Summary of points raised in the ATSE response:

- Aspirations for the qualities of 'good' science teachers have been defined.
- Measuring quality is highly complex – however, the high-stakes, test-oriented mechanisms are judged to be counterproductive and damaging to the real quality of teaching and pupils' education.
- Any system of central planning will be problematic. There needs to be some flexibility to take into account local conditions.
- Part of the function of a training programme is for trainees to affirm their wish to become teachers. Those who find the life in the classroom unsuitable or impossible should leave – despite the effect on retention statistics, their leaving is a positive outcome.
- Teaching must remain an academic profession.
- Tutors and mentors require adequate time and support for scholarly activity, reflection and to engage in some meaningful research.

- Teachers should be required to continue with professional development – and its nature should be largely their own professional responsibility.

Introduction:

As an organisation, ATSE is centrally concerned with supporting tutors in HE whose responsibility is the preparation and development of science teachers. Most of the following comments are based upon a 'science teaching policy paper', which was developed initially in response in 1993 to the circular 9/92, from which it was feared that many of the aspirational aspects of good science teaching and appropriate professional autonomy might be invisible, buried or even discouraged. This policy document was re-visited, slightly extended and endorsed at the 2006 ATSE Annual Conference. Some of the key points from the policy document are listed in the next paragraph.

The following subheadings relate to the questions in the original inquiry.

Definition of a 'good' science teacher:

The revised policy document agreed on the following main aspects needed to develop future science teachers – many of these are relevant to the questions asked.

The key resource in science education is the science teacher, who should be encouraged and enabled to develop the following characteristics:

- A competent teacher and scientist;
- An enthusiastic and sensitive teacher with a continuing interest in the learning of science, both for him/herself and the pupils;
- A thinking, reflective and autonomous science teacher who is both self-confident and self-critical and who can work effectively as a team member, both in the science department and in the school more generally. S/he will be or become aware of the findings of research in science education, critically adapt these in practice and, hopefully, contribute to the research enterprise;
- A committed and idealistic, yet realistic, science teacher with beliefs, vision, high personal standards and appropriately high expectations of all pupils (one purpose of the ITT course is to give opportunity for this commitment to be confirmed or otherwise by the trainee teacher); and
- An effective and creative communicator, developing a coherent story of science set within the context of appropriate theoretical, practical and investigational activities.

Measuring Quality:

As far as the measurable quality of learning is concerned, the current focus on test and examination marks and grades is clearly counter-productive. Such information from national testing can be useful and interesting and



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no-one would suggest that pupils should not perform to their maximum potential. However, this has become a very high-stakes game – with pressure from ‘above’ on teachers to maximise pupils’ grades/scores at any cost.

Unfortunately, the cost of such a test-oriented curriculum is often boredom and disengagement of both pupils and teachers. Perhaps a more meaningful indicator would be the numbers of pupils choosing to continue with study of the subject beyond the stage at which it is compulsory? However, direct comparisons between different contexts would be unlikely to be meaningful.

A key issue is that at some point during the schooling process pupils must take responsibility for their own learning.

Aspects of good teaching are well established as having a teacher who is him/herself an enthusiastic – and generally successful – learner of the subject and who succeeds in engaging the pupils meaningfully in the learning and understanding of the subject. A wide range of personalities seems to be acceptable provided they are sympathetic to the needs of the pupils, encouraging to their successes, and have a sense of humour.

Entry into the teaching profession:

There seems to be no reason why the current requirements for selecting candidates for teaching should not deliver appropriate trainee teachers. The requirements for face-to-face interviews and involvement of serving teachers in the process are valued – and help to ensure

that candidates lacking in personal or communication skills are rejected. It should be remembered, however, that one purpose of ITT courses is to provide opportunity for trainees to confirm their commitment to teaching and that, in many cases, ‘failure’ to complete the course of training is a success in terms of the teaching profession and may save the individual from a personal disaster. (Some uses of course statistics both internally in institutions and in inspections seem to assume that *any* wastage is a bad thing.)

Any system of allocating numbers of trainee places is bound to become problematic in practice. The draconian inspection regimes of the late 20th Century may well have enhanced consistency and conformity but at the expense of innovation, experimentation and staff morale. The increased emphasis on ‘doing it by the book’ and the consequent bureaucracy surrounding constant inspections also had an enormous cost in terms of the time available for staff to engage with their subject and/or with research or other professional activity. In terms of numbers allocated – usually on so-called quality terms – it is the short-term variations that have caused immense logistical difficulties for some institutions. For some subjects, it has proved difficult or impossible to recruit to target due to the lack of candidates (in science, there were targets given at secondary level for biology, chemistry and physics – few institutions were able to meet the targets in the physical sciences) and the then TTA conflated these to a single science number. This has enabled

more institutions to meet their targets but led to the severe under-representation of chemists and physicists in the recently-qualified cohorts of science teachers. A further problem of such external allocations is that they do not take into account the local conditions for training provision in local schools – in some areas, finding sufficient suitable partnership training places an even more severe constraint than recruiting sufficient trainees! It has been a cause for concern since 9/92 that training institutions are *required* to be in formal partnership with schools, but that there is no reciprocal requirement for schools to be available for partnership in the training enterprise. This is exacerbated by the ‘assumption’ that the training element in schools is a cost to the school and a relief for the training institution. Whereas, in most cases the presence in school of a good trainee can be a substantial benefit to the school – and the additional costs to the training institution of organising the very complex partnership arrangements seem hardly to be recognised.

In many cases, the problems of getting teachers out of school to participate in college have proved extremely difficult.

The more flexible routes into teaching may provide valuable alternatives for a minority of new teachers, but we believe that teaching is an academic profession and must remain closely associated with the Higher Education (HE) community. This is even more important as we aspire to move teaching towards a Masters’ profession. One particular element of concern is



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the plethora of dimensions that have been uncovered and documented in the standards and which seem to render relatively unimportant the teacher's personal attainment and continued engagement with his/her own subject learning. Particularly at secondary level we would maintain that the teacher's own development in the subject taught and its teaching should be the priority.

The delivery of ITT:

As stated above, developments since 9/92 led to an almost complete loss of innovation and diversity – the introduction to our 2006 policy paper states:

'The general tone of public statements from the government was at that time rather aggressive and antagonistic and seemed designed to impose (so-called) standards and consistency at all costs. This was to the detriment of professional autonomy, creativity and responsibility. Accountability to the imposed 'standards' was all that mattered and the developing intensive inspection regime seemed punitive.'

More recently, there have been moves towards a more co-operative relationship between DfES (now DCSF)/TDA, teachers and teacher educators and we welcome the valuation of more professional, reflective and innovative expectations of the new standards. We are still concerned, however, about the lack of overt emphasis on the teachers' continuing engagement with their subject.

Teacher educators in HE devote their energies full-time to the business of developing the next

generation of teachers. They usually are members of their professional organisation (ATSE/ASE, in the case of science teacher education) and are in touch with research findings and actively involved themselves with research. Where teacher education is based entirely within schools, the tutors are, for the most part, classroom teachers, and they lack access to the professional network of science teacher educators and research. If science teacher education is to continue to be undertaken, in part, in school-based schemes, these need to be funded far more generously, to allow the tutor-teachers to have time available to integrate into the academic network. The TDA has funded an excellent resource in the form of the sci-tutors' website (www.scitutors.org.uk), but school-based colleagues have little time and enthusiasm to make use of this resource.

CPD provision:

CPD opportunities are widely available and reasonably accessible – what follows is a short list of attributes, which we consider should be found in any significant or substantial CPD undertaken (excluded from this consideration would be inter-departmental or whole-staff training events):

- CPD should be *educational* and it should be legitimate for teachers to develop their own identified subject and/or professional enthusiasms or identified needs.
 - CPD should, where possible, connect with current and future personal and professional interests and aspirations for the individual.
 - Accreditation may be appropriate but should not be mandatory.
 - Professional development should remain an area for personal responsibility and professional trust.
 - It must be recognised that CPD requires quality time – and that this can be easily lost within the over-bureaucratic educational world that we now inhabit.
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- The prime beneficiary of the CPD must be the teacher. CPD undertaken on behalf of the 'wider school or subject-community' can, of course be negotiated, but the individual must be committed to the 'project'. (CPD is undertaken *by* teachers, not *done to* them.)