

Revised Employment-based Teacher Training Scheme

Consultation Response Form

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Responses should be returned by 31 January 2012 to:

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Or completed electronically and sent to:

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- 1. Do you agree to the aim of introducing a pupil/school improvement programme to support young people who face educational disadvantage through an employment-based teacher training programme targeting high-quality entrants, supported with specific training by ITT providers?**

Agree		Disagree		Not sure	✓
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Comments:

The aim implies that there is a link between school-centred training and supporting the disadvantaged. Is there evidence to show that employment-based teacher training gives better results with young people who face educational disadvantage than experienced proven teachers? We welcome the aim of getting a broader cross-section of people into teaching (for example, people who have already been in employment). These teachers can contribute in all schools and not just in schools where a significant fraction of the pupils are educationally disadvantaged.

In order to address the pupils who are educationally disadvantaged we should look to deploy experienced teachers. Most teachers take several years to gain enough experience to become effective.

The specific training provided by an ITT provider will be crucial to the success of the scheme. Trainee teachers need to know more about teaching than they can acquire through simple observation: they need to be able to discuss the observation with an experienced observer; and they need to put their observations into a broader context and relate them to theories of learning. Trainee teachers need to understand why a strategy works so they can develop their own ideas. For physics teachers this is especially important as most of the concepts are abstract rather than concrete. Therefore, we feel that to get the most from observations, trainees need the guidance of a trainer and the structure of a training course.

It is not clear how the experience of being trained in an employment-based scheme would necessarily be better than a PGCE. Those taking PGCEs already spend two thirds of their course in schools. They should have the added benefit of spending time in a university department with the support of a dedicated trainer. As long as they get proper mentoring support in the school, this offers all the advantages of an employment-based training programme with the additional benefit of having the support of a subject trainer, being connected with research, and a network of colleagues learning to teach the same subject. Although trainees are sent into schools and are given a subject mentor there is no guarantee that the mentor will be teaching the same subject as the trainee. For example a physics trainee may have a science mentor but that mentor might not be a specialist physics teacher. Also, it is crucial that the mentors are given training and on-going support. There are cases of trainees being mentored by teachers who are teaching outside their specialism and/or the mentors not having undergone training to teach them how to mentor effectively. We need to look at ways to fully support and engage with in-school mentors and schools that, through taking trainee teachers, are helping develop the next generation of teachers.

2. Do you agree with the proposal to deliver this employment-based training through an additional programme incorporating provision for a course of initial training preceding the period of being employed to teach in a school?

Agree	<input checked="" type="checkbox"/>	Disagree	<input type="checkbox"/>	Not sure	<input type="checkbox"/>
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Comments:

We believe that the current one-year teacher training course is insufficient preparation for teaching the sciences and that a longer course, perhaps including the first 2 or 3 NQT years, would not only provide greater subject specific training, it would also engender a culture of CPD. An additional programme prior to employment based teacher training or to a PGCE would be welcome but not as a replacement for the support supplied by a PGCE tutor during the course.

Additional training prior to employment-based training (or prior to a PGCE) would also enable the Welsh Government to increase the number of trainees in designated secondary priority subjects e.g. physics and chemistry. A scheme that operated in England between 2004 and 2010 was the Physics Enhancement Project. The IOP worked with the TDA on this project (funded by the Gatsby Charitable Foundation) and it consisted of 3 parts: an initial intensive six-month course designed to strengthen subject knowledge; a training course that led to Qualified Teacher Status, for example a PGCE course or school based GTP teacher training; and a follow up mentoring programme for the first two years of teaching after qualifying, to further build subject knowledge and skills. The initial intensive course still exists and is now part of [S\(ubject\) K\(nowledge\) E\(nhancement\)](#) courses or SKE. SKE courses are available across England and vary in length. Courses which last several months have been producing between 150 and 200 entrants in physics each year, a very substantial fraction of the cohort.

3. Do you agree with the details of the proposed Additional Training Graduate Programme?

Agree	<input type="checkbox"/>	Disagree	<input type="checkbox"/>	Not sure	<input checked="" type="checkbox"/>
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Comments:

We suggest that the WG may want to look at setting up an additional training programme which would then be followed by a GTP, RTP or a PGCE, rather than set-up an entirely new method of qualifying as a teacher. Separation of the two parts, the pre-training and the QTS part of training, could allow the pre-training to be used prior to PGCE courses or as top-up courses for teachers, during employment, who would like to gain additional specialism. This would ensure value for money and would allow the course to be accessed by more students. It would also be an opportunity to initiate a more structured approach to CPD.

We believe that there are more efficient ways of increasing numbers into teaching than a designated new course. We suggest that the WG look at schemes such as SKEs, Physics with Mathematics PGCEs and separate targets for the sciences (see our response to Question 5 below).

It is not clear from the documentation what the additional training would cover. PGCE courses seldom have time to improve a candidate's subject knowledge and that, given the dramatic shortage of physics teachers, it is inevitable that many, probably the majority, of candidates for teaching will have substantial holes in their knowledge which will not be filled during their PGCE. We suggest that the additional training covers subject knowledge and pedagogy.

4. Do you agree with the proposed timetable and suggested transitional arrangements?

Agree	<input type="checkbox"/>	Disagree	<input type="checkbox"/>	Not sure	<input checked="" type="checkbox"/>
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Comments:

The feasibility of a start date would depend on what form the additional training graduate programme would take.

5. **We have asked a number of specific questions. If you have any related issues which we have not specifically addressed, please use this space to report them:**

Comments:

In 2011 significant differences in the recruitment of teachers in designated specialist subjects emerged between England and Wales. The three main differences are: Physics with Mathematics PGCE courses; separate ITT targets for teachers of the sciences and bursaries of up to £20,000 for trainee students in physics, mathematics, chemistry and modern languages.

Physics with Mathematics PGCE

The TDA is piloting this new joint course from September 2012 at 32 centres in England (a total of 306 places will be allocated to those centres), following discussions with the Institute of Physics and Royal Academy of Engineering. The scheme also has the backing of the Institute of Mathematics and its Applications. Students would study for a mainstream physics PGCE but replace the chemistry and biology elements with maths. This innovative move follows the UK government's recognition that many physics and engineering students want to train as physics teachers, or physics and maths teachers, but they are put off by current training programmes which require them to teach chemistry and/or biology. At the same time, head teachers have suggested to the government that a new physics with maths PGCE would satisfy unmet demand in schools. (The 306 allocated are in addition to the 925 mentioned below under Separate Science Targets.)

Separate targets for teachers of the sciences

Even though in Wales since 2010 there are specific recruitment targets for ITT centres in chemistry and physics (the figures are combined) the UK government announced earlier this year separate targets for each of the sciences in England. 925 teacher training places have been allocated in physics. Although the separate targets were initially unpopular with ITT providers, they have resulted in record numbers of recruits to physics in England, 864 people are training to become physics specialists this year – up 30 per cent on 2010, and approximately twice the long term average.

In the [Annual Statistics Digest 2011](#) produced by the General Teaching Council for Wales (GTCW) there are 165 registered teachers teaching physics who were trained in physics¹, 247 registered teachers teaching biology who were trained in biology and 201 registered teachers teaching chemistry who were trained in chemistry. Maintaining the current quota of 85 for Biology and Integrated Science and 81 for Chemistry & Physics (combined) does nothing to improve this balance. It is also known that physics applicants tend to apply late in the cycle for PGCE and therefore places on "Science" PGCE courses can be filled before physics graduates even apply. We, the IOP, would be willing to

¹ Table 1.2 of the Annual Statistics Digest 2011 states that there are 165 registered teachers teaching physics who were ITET trained in physics, 194 registered teachers teaching physics whose ITET training was not physics and 41 teaching physics where the subject of their ITET training is unknown.

help the WG and ITT providers in Wales to market their courses. Our [Marketing Initiative for Teacher Recruitment](#) (MITRE) encompasses all of our work to raise the profile of a career in teaching physics with our target audience and the wider community.

Training Bursaries

There is a new system of financial incentives for trainees with good degrees in shortage subjects in England. Bursaries are available for trainees on eligible postgraduate courses who are not employed as a teacher. Bursary amounts will vary depending on teaching subject and degree class. For a first class degree trainees would be awarded a bursary of £20,000; 2:1 would receive £15,000 and 2:2 would receive £12,000. (There is flexibility within the scheme to recognise exceptional achievement outside of degree results.) The subjects are physics, mathematics, chemistry and modern languages. Physics (or physics with mathematics) trainees, with (or predicted) a 1st or 2:1 degree or holding a PhD or Masters Degree, can apply for a bursary or an IOP Teacher Training Scholarship. The scholarship will be worth £20,000 and be instead of the standard bursary. It will have additional benefits such as membership of the Institute of Physics and mentoring support. Although bursaries are a useful means to attract the best graduates into teaching and to raise the status of the profession, it is important that all graduates with the potential to become excellent teachers, particularly in shortage subjects, should not be deterred from entering teacher training by financial constraints.

These three initiatives are targeting the shortage of physics teachers. The question to ask is whether they will have an adverse effect on recruitment to physics teaching in Wales if no changes are made to the Welsh system. There is also the additional consideration in Wales of the supply of physics teachers able to teach through the medium of Welsh.

Good subject knowledge is essential. Even graduates need to brush up basic ideas that they met at school but have not revisited during their degrees. The gaps in knowledge are not formally addressed on ITT courses; it is often incumbent upon the mentors in schools to rectify misconceptions and fill the gaps. This needs to be monitored and we would like to see some assessment of subject knowledge at the end of the training period or prior to QTS. We have online assessment tools which we could share with the Welsh Government.

Compounding the issue of recruitment to the profession is the low retention rate. Currently, only 60% of all new physics teachers are in the profession after five years of teaching. It is therefore important that consideration is given to the development of teachers during their careers as well as during their official training period.

Responses to consultations may be made public – on the internet or in a report. If you would prefer your response to be kept confidential, please tick here: