

DINNER/DISCUSSION SUMMARY

Training Teachers – Have we got it right?

Held at The Royal Society on Wednesday 24th March 2004

Sponsors:
Comino Foundation
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Teacher Training Agency

In the Chair: The Rt Hon the Lord Jenkin of Roding
Chairman, The Foundation for Science and Technology

Speakers: Ralph Tabberer
Chief Executive, Teacher Training Agency
Dr Derek Bell
Chief Executive, Association for Science Education
Mike Tomlinson CBE
Chair, The Learning Trust

Mr Tabberer drew attention in his talk to the decline in recruitment of teachers in the 1990s and to the methods used to reverse it in recent years. In discussion the improved recruitment was welcomed, but concern was expressed over the poor performance of boys compared with girls, even as early as age 9 so far as reading performance was concerned. Studies suggested that this gender gap could be closed by the right teaching; what did this imply for the training of teachers? In response it was recalled that twenty years before people had worried about girls. Perhaps the measures adopted then need to be applied to help boys. It ought to be possible to design curricula to reach both boys and girls, and personalise education so as to reach very different types of learner. Another speaker suggested that boys might be better motivated by being taught science in an applied context. It was important also to use the right language to engage boys, not the language of the "science club". Another question for consideration was whether the apparent reversal of the gender gap might be a function of changed assessment methods.

A speaker saw a need for better continuity between initial and subsequent teacher training. The initial training year was packed, and the students struggled to adapt to working in schools. It would be better to defer proper training until after some initial experience, when the young teachers were no longer struggling to survive. Against this it was argued that the initial training year was right as it stood, but that more should be done later as well. Making students work hard in the initial year meant that newly qualified teachers hit the ground running, but high-quality refresher training was needed throughout their career.

One participant had formerly been involved in advising on medical training and had observed that the best communicators did not necessarily go for the jobs that

required those skills. Some of the best communicators wanted to be surgeons and the worst psychiatrists. It was no use science being taught by brilliant scientists who could not hold their audience, and those who trained teachers needed to be able to communicate. In discussion it was observed that communication skills were vital across the board, but that holding a GCSE in English did not prove ability to communicate. Initial teacher training was very much an internship, getting the students on to the job as soon as possible and obliging them to be practical.

Should more than a year ought to be devoted to initial teacher training, to allow students time for reflection? Current trainee teachers were the most examined generation ever, having had a lot packed into their sixth form, and were bound to look around and see people entering other professions being allowed to spread their training over a much longer period. In response it was argued that teachers were not trained in a year, because the induction year represented a continuation of the initial training.

Mr Tabberer had spoken of the need to make good use of the skills of people other than teachers who were involved in education, just as health care used doctors, nurses and a range of paraprofessionals. In discussion concern was expressed that this could mean deprofessionalising education. In response it was argued that being a profession should not mean behaving like a guild and excluding others who had something to contribute. There was no inconsistency between making full use of a range of occupational groups and encouraging teachers to pursue excellence in their profession.

One incentive for excellence would be Chartered status for science teachers, and Dr Bell had mentioned that the Association for Science Education was preparing a case

for this. It was suggested in discussion that science teachers should rather see themselves as belonging to their particular branch of science and become chartered engineers or whatever their discipline was, taking part in the work of the learned societies and chartered institutions and sharing in the excitement of science. Against this it was argued that being a good scientist was not the same as being a good science teacher.

In his talk Mr Tomlinson had remarked that pay was not a major factor in keeping teachers in their profession, and that other things such as respect counted for more. In discussion a speaker recalled that inability to manage behaviour used to be the worst failing a teacher could have, because it meant forty years of public humiliation. Now it was a central standard: to become a teacher you had to be able to control children. Nevertheless, new teachers all said they wanted more help with it. Other staff such as midday supervisors needed the same skill, and discipline problems called for a team response. The skills of managing behaviour could not be taught academically, and it was an advantage of school-based initial training that new teachers could be supported by their colleagues. It took time and experience to learn different ways to handle different groups. Head teachers and heads of departments also had a responsibility not to put new teachers knowingly in front of difficult classes.

A survey had suggested that the disruptive behaviour of just a few pupils in science lessons was one reason why fewer schoolchildren were motivated to become science teachers. Lack of resources seemed to be a lesser problem. In discussion this was challenged. For some science teachers resources and facilities were critical, and in one school it was said that if animals had been kept in the laboratory the RSPCA would have stepped in. Certainly there was a problem of managing behaviour, but it was questioned whether that was a major reason why children did not stay in science. One speaker's experience was that it was hard to attract science teachers even when they were offered ample resources, and that inspirational students were deterred by paperwork. The best teachers were those who got an idea, wrote it on the back of an envelope and put it into practice the next day. Such people did not want to be swamped by paperwork as a result of initiatives from on high. This comment prompted the observation that there was nothing "from on high" that required the documentation of lesson preparation, this being a matter for the school and the department. External levers had, however, created a climate in which people demanded paper.

One speaker thought the word "team" had been underused in the debate. He recalled how in Strathclyde at one time teachers had been appointed centrally to schools, and care had been taken to put new teachers into teams where the head of department and colleagues would complete their training and foster their development. Another speaker agreed, but saw the team as including not just teachers but laboratory technicians, teaching assistants and other support staff. It was necessary to think vertically as well as horizontally. Others agreed that science technicians played a critical part. One speaker mentioned a technician who had ma-

chined a gold cone, the thickness of human hair, which had been used to demonstrate the possibility of laser fusion. It was good that proposals for a career path and continuing professional development were being developed for science technicians in schools.

One participant was surprised by the lack of mention of technology. Any other industry with so many employees would be trying to use it to replace them, perhaps with virtual reality representing the few truly inspirational teachers. Others were sceptical. The paperless office had not materialised. Teachers who could respond to a child and knew about its life could not be replaced by a computer, and children needed to see real chemistry experiments.

It was asked what the object of good science teaching should be: to produce science-literate young people, to get them through examinations, to grow more science teachers, or what? The answer was given that education had to meet all the needs, including both excellence and equity, with a mixture of strategies to serve a range of goals. It was observed that the educational world, including those who advised young people, had been dogged by a prejudice against the applied and vocational.

A teacher whose school provided teacher training complained of being sat on by OFSTED, with constant inspections even though they got high marks, and a shortage of resources. Meanwhile they saw people who they had had to turn away for lack of money reappearing as graduate teachers on a well-funded programme but not being properly trained. There was a need for consistency between the different routes into teaching. In response it was said that equity was not an issue: choices had to be offered. It was true that a higher unit of resource, was needed for conventional training in schools, and the point about inspection was fair. There would shortly be a consultation on new arrangements.

Another teacher reported inviting medical students to come in and help with sex education, with excellent results. Other university departments ought to send young science students into schools to enthuse pupils. Others agreed that higher education must not be treated as divorced from the school sector, and one of the research councils was reported to be looking at better ways to get research scientists out to schools.

Jeff Gill