ROYAL SOCIETY OF CHEMISTRY

Written Evidence to the House of Commons Education and Skills Committee on the Work of Ofsted

Summary:

- Current subject reports are extremely helpful
- The new inspection regime will provide much less rich data
- Other organisations contribute data but comparison is difficult
- The provisions for subject inspection need to be reviewed

Evidence

1. This evidence is provided by the Royal Society of Chemistry with support from the learned societies, academies, and subject associations who work closely together in the field of school science education (the Association for Science Education, Institute of Biology, Institute of Physics, Royal Society, and Royal Society of Chemistry).

2. The above organisations support the role of Ofsted as helpful guardians of standards in schools. However, while we recognise the importance of school inspections to support institutional improvement, and thus strongly commend plans under the New Relationship with Schools to reduce unnecessary burdens of the current regime, we are extremely concerned about the future of subject inspection.

3. We find current reports such as Science in Primary Schools, HMI 2345, and Science in Secondary Schools, HMI 2332, reporting on the state of science education, to be extremely valuable. We agree that sections such as 'standards in national tests and public examinations' could in the future still be counted on as authoritative. It is our contention however, that the proposals from September 2005 for a minimum of 30 visits per phase per subject of the National Curriculum are unsatisfactory. This is particularly true for National Curriculum Science at Key Stage 4 where there are clear differences in the supply of appropriately qualified biology, chemistry and physics specialists. We consider it would be most unwise to make robust generalisations on a visit to a sample of schools, possibly as small as 30 in number, given the diversity of provision across England.

4. As we understand it DfES have in the past considered a sample of 100 schools to be the minimum required for even a narrow study to be considered reliable.

5. As from September 2005, when inspections will be very much shorter than they are at the moment, there will not be time for inspectors to evaluate individual subjects in detail, except in the case of some college inspections. This means that Ofsted has to find other ways to fulfil its statutory duty to give advice to the Secretary of State on subjects and other aspects of education. It proposes to do this through additional visits to schools and colleges, focusing on subjects and curriculum areas, from the Foundation Stage right through to post-16. It is envisaged that the visits will:

    - feed into the Chief Inspector's Annual Report to give a national picture of strengths and areas for development
    - provide the basis for Ofsted to disseminate findings, including good practice, through its website, conferences, talks and articles
    - give institutions detailed feedback to help them improve
    - support institutions' self-evaluation.

6. It is our contention that changes to the inspection of schools and subjects will alter considerably the quantity and nature of data available to Ofsted, should the programme go on as proposed. This, despite the comment by HM Chief Inspector of Schools in his commentary to the Annual Report 2004/5 that, 'Never before have we had such a wealth of data at our disposal'. Such a 'wealth of data' will clearly not be available in the future under the new regime.

7. It may be helpful to compare the data available per year up to 1st September 2005 and afterwards.

8. Pre-1/9/2005 numerical data are available from a statistically representative sample of around 600 secondary and 400 primary schools by key stage. Each subject has 43 judgements made about it. Thus 'how effective are teaching and learning' has 20 indicators including teaching, learning, assessment, challenge, use of time, homework etc. This plethora of data allows year on year comparison of judgements on science, allowing an exploration of the impact of initiatives.

9. Post-1/9/2005 numerical data will be available from a non-nationally representative sample of 30 secondary schools and 30 primary schools. Only four judgement grades on 'Standards', 'Progress', 'Teaching', and 'Overall Quality of the lesson' will be available. We believe it will not be possible to compare these kinds of data in any meaningful way to the present data sets.

10. Ofsted could work with other government organisations to gather subject information and data and could allocate appropriate subject HMI to the organisation to do this. We believe, however, that the data produced by these organisations may not be as helpful as that currently available.

    For example:

    DfES gathers data but few data sets relate to specific subjects and they are collected principally by questionnaire and not by direct observation.

    QCA routinely evaluates curriculum matters by questionnaire followed by some school visits. However classes are not directly observed and no data are derived from first hand observation.

11. Other bodies, such as the learned societies, gather data where it is unavailable from Ofsted or Government. Recent examples includes *'Laboratories, Resources and Budgets'* from the Royal Society of Chemistry on the state and number of school science laboratories, and the Institute of Physics' report on girls and physics.

12. It is our contention that the details of 'Subject and Survey Inspection' HMI 2489 July 2005 should be reviewed in the light of our comments above, to provide a reliable and statistically significant review of subjects, providing data that can be compared to that obtained pre-1/9/2005.

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