

Editorial

Technology: The End of the Honeymoon?

John Eggleston

One characteristic innovation of the 1990s is already clear - the modification, dilution or even abandonment of the curriculum innovations of the 1980s. In subject after subject the 'excesses' of the previous decade are giving way to 'tried and tested methods' - led by Government and its influential advisers.

But there has been one shining exception - Technology. The spectacular developments of recent years were codified and packaged in full by the Working Group led by Lady Parkes, turned almost unchanged into Statutory Orders and a virtually new subject was introduced in primary and secondary schools with the blessing of almost the whole Government team. Now, suddenly the honeymoon seems over; the fall out is spectacular and of royal proportions.

Events began to take a downward turn when HMI found that all was not well with National Curriculum Technology and that in many schools, particularly secondary, it was not as well taught as that which had preceded it. Not so surprising, perhaps, that in the first year of a largely new product it should not be being delivered quite as well as its long standing predecessor. But the pre-election delay in publication, the frequent revisions and the succession of leaks created a gathering cloud over the subject area.

All this established an opportunity for the Engineering Council to commission Smithers and Robinson to a no nonsense investigation on the state of technology. They duly obliged, and their report *Technology in National Curriculum - Get it Right* said it all with a list of bullet points of instant media readiness.

The message was simple - prune the 'cerebral' loading in Attainment Targets 1, 1, and 4 and concentrate on the practical designing and making in Attainment Target 3.

A few days later, by a remarkable coincidence, the HMI report was at last published and the evidence of low standards was there for all to see. The

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weekend journalists on 31 May had a ready made story. The Sunday Times under a headline 'Patten to Revise Technology Teaching as Standards Slide', wrote:

The findings reinforce widespread criticism of the emphasis in school technology lessons on 'Blue-Peter' activities involving cardboard, paper and egg boxes. Academics warned this weekend that it was putting Britain's industrial future at risk.

The tabloids duly followed and by Tuesday 2 June the *Daily Mail* had an exclusive:

Action to improve technology teaching in schools will be ordered today by Education Secretary John Patten.

His intervention follows severe criticism by Government inspectors of standards in a subject regarded as vital to Britain's economic future.

It is feared thousands of youngsters are leaving school ill-prepared to take on the Germans. French and Dutch in the highly-competitive European jobs market.

Industrialists and engineers have warned that children are learning 'too much waffle'.

Mr. Patten himself believes much of the current project work in classrooms is either too theoretical or irrelevant to the needs of modern manufacturing. Today he will demand an end to the 'Blue Peter technology' which sees pupils making cardboard cut-outs instead of real tools of modern manufacturing.

Today he will demand an end to the 'Blue Paper technology' which sees pupils making cardboard cut-outs instead of real tools or equipment.

The Minister will insist that, in future, lessons must get back to basics by being more practical and skill-based.

A series of libel articles from Blue Peter must be imminent but this did not inhibit the *Mail's* leader writer who wrote:

Once again woolly teaching methods are cheating our children, substituting an emphasis on talk and theory rather than developing real skills of use in the world of work outside the classroom.

There has always been a streak in the educational establishment which finds practical things distasteful; teaching children how to earn their living as somehow wrong.

Fortunately Education Secretary John Patten has shown these sniffy ivory-towered experts that he is just as tough as his doughty predecessor.

Events then moved at great speed. SEAC produced an instant change of weighting, Attainment Target 3, the practical component was increased to 40% 5, the other Attainment Targets suitably reduced. The National Curriculum Council, with astonishing speed, produced a document *National Curriculum Technology: The Case for Revising the Order* - only weeks after strident officer

denials that of any intention of revision. John Patten duly obliged, within hours of the *Daily Mail* call, and launched an urgent review of Technology in the National Curriculum.

The short sharp Patten review will be, on grounds of urgency of course, an in-house HMI job with only marginal NCC involvement with recommendations for new Orders to be ready for consultation by Autumn. The planning blight problems in the schools will be enormous, rewriting of teaching materials and timetables, GCSE pupils working to the old Orders even after the new Orders are in place to mention a few. But this has not diminished the heady delight of the advocates of change. The Engineering Council was quick off the mark, the triumphant press release reported:

Mr. Denis Filer, Eng, Director General of the Engineering Council, said today that Mr. Patten has responded positively and speedily to the recommendations made by the Engineering Council in its report on the subject.

'This should put an end to the Mickey Mouse technology that had manifested itself in schools', said Mr. Filer.

He added: 'We must seize this opportunity to get the subject right and to define it more precisely. Teachers should not be left to struggle to interpret the subject; they should receive specific guidance.'

Of course there are problems in delivering National Curriculum Technology. There are still difficulties of resourcing in many schools. Many teachers are ill or even unenthusiastic about the subject. Some of the projects are, quite frankly, appalling. One gave its Key State 3 pupils a problem - design a car to appeal to young motorists. Research involved scanning old motoring magazines, realisation required the shaping of a block of softwood using saw and sureform tools and the evaluation was by their fellow pupils' votes. Some (not all) of the new books produced by educational publishers offer a series of short cuts and soft projects that seriously short change the subject and offer little challenge to children and teachers. But there are also outstanding examples of work in technology that demonstrates and entrance childrens' creativity and imagination - and practical competence. The writer's annual experience of judging the Young Electronic Designer Awards confirms this abundantly.

But the real issues go beyond the delivery problems and are political and ideological. If we unpick the logic of the *Daily Mail* leader we can begin to see then. Teachers, trendy or traditional, have never been opposed to practical technology activities. But they have been deterred from making them available to all children because of the relentless pressure to study academic subjects to win the qualifications that lead to high flying careers. Although there are repeated attempts to change matters - it still disadvantages able children to offer them a 'practical curriculum.' Their chances of getting into prestigious undergraduate courses with 'A' levels in Art, Computer Studies and traditional Technology are remote. In the technological degree programmes, particularly Mathematics and Pure Science rule.

The pattern of qualification is exactly matched by the technological professions. The top people - architects, designers and professional engineers do not make things - they work with paper and make models - even using egg boxes. If they want to have something made they call in one of the lower status workers.

The 'crime' of National Curriculum Technology is that it is trying to make these 'intellectual' and expressive aspects of technology available to all children. It's an ambitious, brave and difficult endeavor. It may not be universally successful - but should not all children have the opportunity? But there is a fundamental problem. If the endeavor succeeds it may confuse the social order by producing too many chiefs and not enough Indians. And even worse - because the emphasis on practical ability is relatively less - the Indians may be less skilled and even less willing to be skilled than before.

We are in great danger of diluting or abandoning one of the Century's most ambitious and well thought out innovations. It is an innovation that could transform our labour force and rekindle the huge creative power that characterised the first British industrial revolution.

Let us hope that the HMI review will respond to the Engineering Council's desire to get it right and steer a path through the delivery problems. But let us also hope that, in the process, it will not abandon the spectacular achievements in Technology education which have been achieved by cooperation between education and industry in the past twenty years. °