

## The core curriculum - cage or support ?

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### Redactionele verantwoording

*Philip Adey, mede-auteur van het in het eerste nummer van TDN besproken boek 'Towards a Science of Science Education' is momenteel verbonden aan The British Council in Djakarta.*

*Vanuit Indonesisch perspectief schrijft hij in The School Science Review van september 1983 een beschouwing over de gewenste mate van overheidscontrole op de inhoud van natuurwetenschappelijk onderwijs in Groot-Brittannië.*

*Hoewel de Britse situatie anders is dan de Nederlandse, worden er in dit artikel voldoende ook voor ons onderwijs relevante aspecten behandeld om ons te doen besluiten het in TDN over te nemen.*

*Terwille van de leesbaarheid vermelden wij de betekenis van enkele in het artikel voorkomende afkortingen:*

*A.S.E. - Association for Science Education (de 'Britse N.V.O.N.').*

*D.E.S. - Department of Education and Science.*

*H.M.I. - Her Majesty's Inspectors (of Schools).*

There is one belief fondly held by many of us who work overseas in education, a belief that helps to sustain us in dark days of encounters with bureaucratic monoliths of education departments. It is the belief that, in England and Wales, teachers have a remarkable freedom to choose what they teach and how they teach it. When colleagues in India, or Nigeria, or even the United States say 'Oh our teachers wouldn't know how to handle such freedom' we nod sagely and, so as not to appear too boastful, refrain from extolling the virtues of the British teacher education system which invariably produces wise, responsible people whose excellent grasp of their subject matter is matched by a fine understanding of how to teach it.

Of course, in rare moments of realism we agree that parts of this picture are a little overpainted, but even then it does seem true that:

- a. In Britain, heads of department at least do have far more freedom than their counterparts in other countries, at least up to the second year of secondary school. After that, admittedly, the 16+ examination syllabuses do have a pretty dampening effect on curriculum innovation in examination and non-examination classes alike, except for the mode 3 workaholics.
- b. Whatever shortcomings you may perceive in everyone else as you look around the department coffee space (assuming that like most science departments, you seldom venture to the general staff room), when an outsider comes to work in a school in Britain he can expect, and usually gets, a remarkably high standard of commitment and professionalism.

Whether or not these are two facets of the same phenomenon will be worth a little more discussion later. Now, as the DES mutters increasingly audibly about the virtues of a core curriculum, professional bodies stake out claims to irreducible minima, and as the opponents of centralized control muster their arguments in anticipation of the fight, it might be enlightening to review those arguments from the perspective of a country which arguably has the most massive centralized education system in the non-communist world.

Indonesia has the fifth largest population in the world. If the Indonesian archipelago was superimposed on Europe, it would stretch from Dublin to the Caspian sea, from Stockholm to Rome. There are one million primary school teachers, and over two hundred thousand secondary teachers. In Indonesia, as in those other great developing countries Nigeria and India, the statistics of education are difficult to conceptualize as real schools and real children. But unlike those countries, which have federal governments, there is just one curriculum for every primary and secondary school, for state and private schools, set from the capital, Jakarta. Provincial and regional education authorities have no curriculum function other than to ensure that the centrally determined curriculum is followed term by term, week by week, and instructional objective by instructional objective.

Making due allowance for the very great differences in economic, social, and physical environments, what light can be shed on the arguments for and against centralization from some experience of such a system? The arguments may be grouped broadly as: political; environmental; those concerned with teachers' rights and responsibilities; pragmatic; and the meta-biological arguments for the value of variation itself.

### Political

In Britain this often takes the narrow form of implying that a policy of centralized curriculum control is a conservative one. It is not at all clear why a core curriculum should be thus tarred, unless by simple association between the present government and the present debate, but the result is that noises in favour of centralization tend to induce a reflex resistance from anyone to the left of, say, Edward Heath. One might guess that this includes some 90 per cent of the educational establishment overall, perhaps a smaller percentage of science teachers. This association of centralization with conservatism is odd, really, when one thinks that conservatives in general and the Thatcher government in particular are supposed to be the champions of free enterprise and individual effort. In the economic domain, it is the left wing that favours centralization.

In Indonesia there is little room for such party political debate, and political arguments for centralization are painted with a much broader brush. The overriding concern is for strategies of national unification. A 'country' which encompasses the variety of terrain, cultures, languages, religions, and histories that the ex-Dutch East Indies does cannot afford to let up on opportunities for emphasizing its single nationhood. Overtly through Pancasila (state moral philosophy), religion, social studies, and bahasa Indonesia (the national lingua franca); and implicitly in mathematics and science, the school curriculum is designed as a powerful instrument for promoting one-nation thinking. Such a driving force may be essential in a country which has existed as one independent nation for only thirty-five years, but it is difficult to see this as a compelling argument in countries like England and Wales, already quite confident of their identities.

### Environmental

To the extent to which the science curriculum is related to the school environment - biological, geological, or industrial - to that extent there must be room for variety within each school's curriculum. This may be no more than the drawing of relevant examples from the environment to illustrate general principles - or it can be a whole curriculum related to aspects of locally significant features. The need here is not for a multitude of individually written curricula for each district, so much as for a curriculum with space in it. That is, it must not be so full and so prescriptive that the imaginative and concerned teacher cannot inject the necessary local colour.

'Must not' - well, that looks quite prescriptive itself, and what happens to the

space in the curriculum when it is taught without imagination or concern? The Indonesian answer is that since teachers cannot use the space effectively, no space should be left. One result, is typified by my observation that senior secondary chemistry pupils in South Sumatra, where the methane pours out of the ground to help service the World Bank Education loans, can rattle off the names of the first ten alkanes, can give you the H-C-H bond angle in each to the nearest minute, and will spend happy hours puzzling out the variety of isomers that can have a given molecular formula. They cannot, however, tell you where they might find methane - there is no connection between the game of organic chemistry and the great social and economic world without. When I tax teachers with this, the answer is simple: 'it's not in the curriculum', or more disturbing 'we do that in the next chapter' (more disturbing, this because it implies fearsome rigidity of order).

### Teachers

Perhaps one of the reasons why unions of professional people often tie themselves in logical knots is that, unlike unions of industrial workers, one of the employees' rights they aim to defend is the right to exercise professional judgement. The effectiveness of a union's activities depends on the commonalities of its members, but for journalists, professional civil servants, teachers, and the like one of these commonalities is freedom from commonality. However this knot is unravelled, it remains true that a statutory core curriculum reduces the teachers' field of decision-making, and so tends to provoke the opposition of teachers' organizations.

Now, it is very well for a fully professional teaching force to demand the right to exercise its professionalism in the determination of curriculum and teaching methods, at least within broadly agreed limits. But what of a teaching force that is undereducated, and so underpaid that most have to work two (sometimes three) shifts of schools, clocking up fifty or even sixty contact hours per week? Again, we face the question of the relation of curricular freedom to determine the daily curriculum depend on the justification for teachers' freedom to determine the daily curriculum depend on the quality of the teaching force? Could the argument for leaving heads of department to settle their own curriculum and teaching methods be maintained even if teachers were generally undereducated, lacking in confidence, and subject to a strict hierarchical authority structure?

It may seem reasonable to answer that in such a desperate situation, there is no question of the teacher herself entering the curriculum development game. (And, frankly, who in Britain gained from the rash of school-based science curriculum

development? No doubt the actively participating teachers gained much, but are their pupils any better off with the spirit duplicated worksheets, that their teacher has 'developed' than they were with a set of commercial materials produced by professionals with the time and opportunity for proper trialling?) But this is an argument for the provision of a fully articulated curriculum for those who want it, not for making it legally binding. And one sees how easy it is to use the compulsory curriculum as a cosy excuse from responsibility for any original thinking, or any attempts to change teaching methods.

One person's cage is another's support system; one person's support is another's prop. How about a cage with an open door?

### Pragmatic

Even given the most centralized of intentions, just how efficiently can a curriculum be imposed on a real school system? This begs all sorts of questions about precisely what defines the curriculum - examination syllabus, a teachers' guide, a set of instructional objectives, a textbook, an apparatus list or some combination of these and other elements? As the material expression of the curriculum becomes more specific, so there is less room for interpretation by the teacher. At the same time, gaps between the official curriculum and what actually happens in schools become less easy to paper over. The argument against centralism here is that either the core curriculum is expressed in terms too vague to satisfy those who wish to see it control teaching practice, or it is too specific to be practically imposed and monitored.

From this observation point, the real gap that undoubtedly exists can be seen as a measure of the distance from reality of the curriculum writers - and this must be a potential danger in any centralization plans. Even if all the schools and all the children were essentially similar, which they obviously are not, a curriculum written by mandarins in the DES, University Institute of Education, or the School Council (RIP) is almost bound to express wishful thinking rather than reflect actualities of conceptual levels, relevance to the early school leaver, or the limitations of the teaching force. Even if, say, the DES commission's groups of teachers coordinated by, to take a random example, the ASE, to produce curriculum material, this material will represent the thinking and practice of a particularly well-motivated and experienced group of teachers. Good for them, but in no way justifiable to be imposed on another set of teachers. Offer it, by all means, but do not try to impose it. If the curriculum carries the force of law, and if it is inteachable in a particular school, then the headteacher becomes a law-breaker. This is a pretty silly situation.

Variety as a virtue

Finally, we come to the argument for the intrinsic necessity for variety, as the only alternative to stagnation. When one sees attempts to change teaching methods neutralized in the face of a legally binding curriculum, and the size of the inertial mass that must be moved to achieve minute changes within the curriculum of one subject, it is tempting to blame these phenomena on the authority structure. *They* won't let us do it. But perhaps the stagnation is not so much to do with *they* as it is an inevitable and in-built consequence of lack of variety. *They* themselves, however well-meaning and far sighted, and however high up the authority structure, are also trapped by the system. This is really the biologists' explanation of the need for variety. The evolutionary model of the development of living things involves change, and the opportunity for change must be provided. If a body has a number of offspring which are not identical, and then dies, there is a chance that some of the offspring will be better adapted to the environment and be in some way more efficient. Evolution can only occur if there is variety. If all offspring are identical, how can a most efficient emerge? If there is only one curriculum, how can 'better' or 'worse' curricula, by whatever standards are chosen, be differentiated? The central curriculum monolith, having nothing to compete against, closes the opportunities for development.

Variety is much more than the spice of life. It is its *sine qua non*.

Conclusion

The conclusion, then, is that any attempt to impose a core curriculum with the force of law is (to use the subtle terminology of *1066 And All That*) a bad thing. And this conclusion does not depend on assumptions about the competence of teachers to 'use freedom'.

The cage-with-open-door model may, in Britain, take the form of some fairly detailed curriculum guidelines for the core which, however, carry only the status of HMI's recommendations. Such a recommended core would offer some sort of standard of quantity and treatment of material which parents, examiners, and employers might reasonably expect from groups of pupils across the range of abilities at different stages of their education. For those teachers and heads who either have not the time or the inclination to undertake the fundamental thinking and materials development required for good school-based curriculum innovation, the Recommended Core (look, it's grown capitals already) would provide welcome ideas and support.

But the cage door is still open. Those who find the RC (initials now) unsuitable, unsympathetic, or just bad, can provide their own. There will, however, be some moral

obligation on such teachers to be able to explain just why they have chosen not to follow the HMIs recommendations. This may not be a bad thing, if it discourages change for the sake of change, and encourages positive critical thinking about the given RC. The opening for variation, upon the existence of which the life of the whole curriculum depends, does not have to be an unguarded floodgate. But experiences of curriculum cages with closed doors convince me that for Britain certainly, and almost certainly for anywhere else in the world, any attempt to legally bind the curriculum can only have a deleterious effect on the quality of education provided by the school system.