Summer 1969 Volume 11 Number 3 Five Shillings

For Genuine Comprehensive Schools

Direct Grant Grammar Schools *Forum Editorial Board*

The Fake's Progress H H Tilley

Freedom of Choice—for whom? W Roy Porter

A New Education Act? Caroline Benn

What pupils think of their schools A Bullough

Differentiation in secondary education in the USSR *Joan Simon*

Discussion

D Churchill, E E D Newbigin, M Richardson

The Observational Study of Classroom Groups Frank Worthington

Group Study in a College of Education *E Altman*

Nuffield Science in comprehensive schools Brian Mowl

Reviews

I Farmer, M Armstrong, D Holly, N Whitbread, J F Eggleston

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For Genuine Comprehensive Schools

Early in March the Secretary of State, Mr Edward Short, told a parents' association in Richmond on Thames that he intended to introduce legislation to ensure the introduction of comprehensive secondary education. 'Only a tiny handful of authorities have so far not submitted schemes for reorganisation', he said. It was unthinkable that 'these small islands should remain with all the old-fashioned paraphernalia of selection at eleven plus and all the evils that flow from it while the rest of the country has abolished selection in favour of the much more educationally sound comprehensive type of organisation'.

This step must be welcomed. It is expected that the government will bring in a short Bill dealing only with this specific issue. But the terms of the Bill must be carefully watched. In this number we print a draft Bill as proposed by the Comprehensive Schools Committee, together with an explanation of it by Caroline Benn. This draft will make a good basis for discussion.

Mr Short is chiefly concerned, it seems, with the small group of authorities who are holding out against Circular 10/65. But there are much wider grounds for concern. It is quite definitely not the case that 'the rest of the country has abolished selection' in favour of comprehensive education. In a recent number (Vol. 11, No. 1) we printed an article by the late Mr MacCarthy, entitled 'The Comprehensive Myth'. This made it clear that as many as 19% of London's school children are today 'selected' to attend grammar schools at 11, so that very few (any?) of the ILEA schools can be called genuinely comprehensive. In this issue we include an article by a junior school headmaster who explains just how the London selective system works, and comments on the invidious role primary school headteachers are expected to play in this process. We also print an article by one of the pioneers of comprehensive education, H H Tilley, headmaster of a Coventry comprehensive since 1954. He makes it clear beyond any doubt that no genuinely comprehensive schools yet exist in Coventry.

Both these authorities, which admittedly pioneered comprehensive education in the 1950's, have particular problems-in London, the existence of voluntary-aided grammar schools, in Coventry of direct grant schools, both of which cream the intake. The Forum Evidence to the Public Schools Commission. also printed in this issue, deals with this questiondirect grant schools can and must be integrated into local authority plans for secondary education. The national picture is confused. Cities like Bristol, Manchester, Sheffield, are moving over rapidly to full-scale systems of comprehensive education; Sheffield has no direct grant schools, and, since it is going fully comprehensive in its existing buildings in September, will probably be the first large city in the country to develop a system of genuinely comprehensive schools. But on the other hand cities which many think have 'gone comprehensive' have not done so, and selection remains widespread. Also, as the Comprehensive Schools Committee has shown in its surveys, several local authority plans which have been accepted by the DES come under the 'interim' schemes of 10/65; some retain parallel grammar and modern schools after 13 utilising the discredited system of 'guided parental choice', some even use a similar system as early as 11.

A decision has been made, on a national level, to abolish the selective system of secondary education—or so we understood. Those who favour comprehensive education need now to exert all their power, both nationally and locally, to ensure that comprehensive schools are genuinely comprehensive, with all that this implies.

We must not be content with half measures, nor lulled into complacency by official statements which imply that, with the exception of five or six recalcitrant authorities, all is well. Grammar and comprehensive schools cannot co-exist by definition. To suggest that they can is either the sheerest hypocrisy, or the exercise of the smoothest deceit. The present position in London, Coventry and elsewhere simply means, as Mr MacCarthy and Mr Tilley have both pointed out, that the 'comprehensive' schools are not comprehensive.

Evidence submitted to the Public School Commission by the Editorial Board of Forum

Direct Grant Grammar Schools

- 1 The Editorial Board of FORUM notes that the Public School Commission has been asked to advise the government 'on the ways in which direct grammar schools in England and Wales... can take part in the movement towards comprehensive reorganisation, and also to review the principle of central government grant to these schools'.
- 2 FORUM is an independent educational journal with an editorial board representative of all fields of teaching and education. It was founded ten years ago specifically to encourage the movement towards comprehensive education and to discuss the educational issues involved in that movement. Since the issue of Circular 10/65, the editorial board has been aware that efforts to integrate direct grant grammar schools into local authority schemes for comprehensive education have been signally unsuccessful; the continued existence of these schools, outside local authority control, has been one of the main factors limiting the extent and success of comprehensive reorganisation in cities like London, Coventry, Manchester and elsewhere. We therefore regard this topic as of extreme importance at the present time, to which a satisfactory solution must be found as soon as possible.
- Direct grant grammar schools are, in fact, similar, in their academic and social variety, to the range of maintained grammar schools that have become full parts of local comprehensive systems in the last two decades (with an increased momentum during the last four years). In our view the reason why only one direct grant grammar school has gone comprehensive, while several hundred maintained grammar schools now form parts of comprehensive systems, is due largely to historical factors. By 1926, 235 local grammar schools had decided to receive their grant direct from the central authority, rather than to be maintained or aided by their local education authorities. Following the 1944 Education Act the

- direct grant list was reduced to 164 schools. Had these chosen, along with the majority of grammar schools, to become maintained by their local education authorities, probably half would by now already be fully integrated into local comprehensive systems, under one or other of the main schemes proposed in Circular 10/65; the other half would probably still be in areas where discussions are taking place about secondary reorganisation. Nor would there be any administrative difficulty about comprehensive reorganisation in these circumstances.
- Direct grant grammar schools, with 75 per cent of their income derived from public funds, are the last remaining bastion of the 11-plus system of selective secondary education - a system now discredited on psychological, educational and social grounds. The overwhelming evidence against selection at eleven applies with unusual force to these schools. They now provide a delusory area of 'choice' for parents of primary age children. Their social intake is very much narrower than that of maintained schools (this fact has been denied for years in the claim that these schools are more 'socially representative' than comprehensive schools; but the evidence is now before the Commission and it is incontrovertible). Another peculiar factor is that all but two of the direct grant grammar schools are single sex schools. Their academic performance, as seen in crude terms of 'O' and 'A' level results and entry to higher education, is, of course, largely a function of the social class origin in their intake. As Sir Alec Clegg has pointed out, direct grant grammar schools may produce rather less measurable success for pupils in the lower and middle IQ range of the grammar school (110 to 130) than comprehensive schools. The 'choice' that a parent may be making, then, may have more to do with historical reputation and social class factors than with the quality of educational experience.

- 5 The separate existence of direct grant grammar schools, under no effective local authority control, vitiates the movement towards comprehensive education in many areas, depriving local comprehensive schools of the possibility of becoming genuinely comprehensive. The comprehensive school was officially (and correctly) defined as long ago as 1947 as 'one which is intended to cater for all the secondary education of all the children in a given area. without an organisation in three sides' (Circular 144, 16 June 1947). But in some areas up to 20% of the local pupils are selected for direct grant grammar schools, a situation which is making it impossible for local comprehensive schools to develop viable sixth forms, or to achieve that status in the eves of parents and others which is necessary if comprehensive schools are to have the opportunity to develop to their full potential as educational institutions. The parallel provision of selective schools alongside 'comprehensive' schools makes no sense at all from an educational point of view, as has long been recognised.
- 6 It has also long been recognised that there is a comparatively simple means of overcoming this problem—the abolition of the direct grant list. This implies bringing to an end the method of financing these schools by central government grant, which remains an anomalous method whose origin can only be explained historically. As already mentioned, after the second world war the list was radically reduced by the government, and indeed while the Education Act of 1944 was under discussion, many responsible bodies already proposed this solution. It is our proposal that this should be the solution advocated by the Public School Commission.
- 7 If this step were taken, the majority of direct grant grammar schools would inevitably accept maintained status, so that local education authorities would be in a position to include these schools in their provision for comprehensive education in

- exactly the same way as they have already done in the case of maintained grammar schools. It is true that some existing direct grant grammar schools might opt to become private schools; but it is extremely unlikely that more than a very small minority would find this a financially practical solution.
- It is true that direct grant grammar schools will have much to learn as they become integrated in comprehensive systems. Due to their rather narrow experience in the past they will suffer, sometimes in a heightened form, the difficulties of readjustment that some maintained grammar schools have recently undergone. They will have to learn how to provide a wide range of educational experience for children from a varied social background and with widely differing abilities and interests. But we believe that they will also have much to contribute. particularly in boarding facilities. Sixty-six of these schools (which are more evenly spread across the country, and nearer to large urban centres, than private schools) have boarding wings and have developed a tolerant fostering role that is much needed for a small minority of children in a fully comprehensive provision of secondary education; these boarding wings have already been used to accepting children from a wider ability range than their day boy/girl counterparts.
- 9 We believe that the greatest single improvement to the secondary education of our children will come when a government decides to incorporate all remaining grammar schools into comprehensive systems of secondary education. On three major occasions in this century governments have acted on grammar schools in 1902-7, 1926, 1944. We believe that the next act will be by far the most farreaching in its influence on educational standards. A unified secondary system is the necessary base for a concerted attack on the profound inadequacies in the present education of all our children aged 11 to 18.

Plus ça Change or The Fake's Progress

H H Tilley, C.B.E.

After experience in senior, technical, modern and grammar schools, both as Assistant and Head, Mr Tilley became headmaster in 1954 of one of Coventry's first two 'comprehensive' schools, Caludon Castle. At Coventry the comprehensive schools are creamed both by direct grant schools and by maintained grammar schools (in the case of girls). Mr Tilley, whose article follows up the late Mr McCarthy's 'The Comprehensive Myth', (Forum, Vol 11, No 1) quotes here from Speech Day Headmaster's Reports and articles in the local press which express his views over the last 15 years.

In his article, 'The Comprehensive Myth', in last year's September issue, Mr E F McCarthy declared that 'a public opinion poll that put the question "Are there genuine comprehensive schools in your city?" to residents of ... Coventry would probably produce a 90 per cent affirmative'.

In which case, those residents alone would be to blame for allowing themselves to be so bamboozled, in view of the many public and well-publicised disclaimers which I (and others) have put out over the years; and from some of which I quote below a few brief extracts.

In 1954, for instance, at the outset of Coventry's 'comprehensive' programme: "I find it difficult to understand why Caludon, or any comprehensive school, should be referred to, darkly, as an experiment: as if the idea of a catchment area were somehow unsound; as if the desire to have done with the shabby sanctity of the special place examination were somehow suspect; and as if the belief that youngsters of an age should live and grow together were somehow dangerous. The comprehensive school aims to create a pattern of educational and social opportunity from which no child who would really have profited from a grammar school course will profit one whit less; and from which, additionally, the many other children who would have been frustrated in a grammar school or not fully catered for elsewhere will be helped to profit much more.'

In 1960: 'Every teacher and every administrator knows very well that there has never yet been invented an eleven-plus separator or an outfit of regulating screws efficient enough to ensure that cream and only cream gets into cartons, and that skim and nothing but skim finds its way into other receptacles. A bottle of milk contains not separate cream and skim but milk in which cream and skim are mixed quite naturally, because the one is so much a part of the other. If you leave the milk alone long enough, whatever cream it may contain will rise to the top, and may even stand a

rich head and neck and shoulders above the rest; but it will still be, as it should, a part of the milk and a part of the contents of the whole bottle. On the other hand, if you draw off the cream artificially, you will separate it from the vital protein content of the milk since, ironically enough, the whole of the protein found in milk is to be found in the skim ... Any supplier is guilty of sharp practice if he offers for what is alleged to be milk of standard quality a product which has been subjected to a reduction of its full cream content by extraction and substitution. Coventry has had, and still has, its own difficulties in connection with the quality and destination of its deliveries; but so far it has not attempted to deceive its customers in the matter.'

In 1961: 'In spite of all its "comprehensive" buildings, there is still not a single comprehensive school in the whole of Coventry. There are, to be sure, big or biggish establishments in each of which you will find quite a spread of abilities; but there is not one school among them which has anything like a real comprehensive range. In short, every so-called comprehensive school in the city finds itself, thanks to its incomplete intake, prevented from being just what its name, size and cost proclaim that it should be . . . Coventry's eight uncomprehensive schools receive, as a body, perhaps a paltry 10 per cent of Coventry's ablest children, and the very ablest do not figure at all in the 10 per cent even as occasional, let alone recurring, decimals ... From time to time, we are told that the comprehensive system hasn't yet justified itself. It would be rather remarkable if it had, since it hasn't yet even been seen! Then we are given to understand that the "comprehensive" schools are on trial. On trial to prove what? That they aren't what they have never been allowed to be? Or that they are unlikely to become something which, with their present composition, they never can? "Sentence first, verdict afterwards," roared the Queen. "Off with his head." The pity of it is that no "comprehensive" school in Coventry has ever yet had its head put on!

In 1962: 'The grammar school system has been built up on the pathetic fallacy that as children are thought to be at the age of eleven, so they will remain. It isn't surprising - some of us have known it a long, long time - to hear that "half the children being sent to grammar schools are unsuitable" at the age of sixteen. though the same children were considered suitable enough at the age of eleven. You can't take out an academic five-year insurance policy on youngsters simply by putting a geiger counter to their heads during their last year in the junior school. You don't, unless you ignore the facts of life, expect them all to conform to the requirements of the GCE, which is intended for the brightest only, by the time they're sixteen. Of course it's wrong that "nearly half the children in grammar schools have nothing to show for five years' work". It's so sickeningly wrong that comprehensive schools were advocated to put it right. But it's one thing to diagnose the disease and prescribe the cure, and quite another to get the patient on to the operating table. Which means, I fear, that pseudo-grammar schools will go on taking the so-called brightest eleven-year-olds, half of whom will go on failing to be bright enough, and go on being condemned, even penalised, for what they can't help; and that pseudo-comprehensive schools will have to go on doing what they can, as best they may, more often than not with what they never get. How much longer must the evidence of "comprehensive" school success and grammar school failure be paraded before something is done about the educational health of the children concerned?

In 1963: 'Once upon a childhood time there were, among other things, three bears. Nowadays there are, among many other things, three bugbears: the father bugbear of the Advanced Level; the mother bugbear of the Ordinary Level; and the father and mother of all bugbears, the Eleven-plus. In a class of its own, this particularly baleful bogey is not an examination so much as an excruciation: a once-in-a-lifetime once-ayear lottery which forces strong fathers to their knees, and sends outraged mothers to the Council House with cajolery on their lips but murder in their hearts The function of the eleven-plus isn't to determine what sort of education will be best for little Willy after the age of eleven, for no would-be examination at that age can possibly do anything of the kind. The only purpose the wretched business can have these days is to endorse and perpetuate a way of thinking which the Education Act of 1944 is supposed to have rejected. It seems quite ludicrous to me that present-day society which depends for its very existence on its secondary education should be content to leave the pattern of that education – and, inevitably, of its primary education, too – to the mercy and devices of such an antiquated and wasteful piece of machinery as the eleven-plus.'

In 1964: 'Ten years ago we were told we had to prove ourselves, though it wasn't made clear just what we had to prove ourselves in or for, or how long the proving was to take. It may be, therefore – who knows? that we are still on probation. Or it may be – who can tell? - that we are still required to go through the motions of providing answers to those few basic questions which have altered little since 1954. Or it may even be that, without our being aware of the fact, we have now reached our pre-ordained place in the educational league: a kind of Second Division team which, whilst carrying out its own commitments and a heavy programme in the Third Division, is also expected to cope with a full list of First Division fixtures, though it is annually denied the playing strength necessary for the purpose ... Ten years after the event we are still neither fish nor flesh nor fowl; neither grammar nor modern nor comprehensive. Ten years ago the comprehensive thesis was advanced in Coventry, not for political ends but out of sheer educational sense, to make the best of either educational world readily available to the other within a single, undivided system. Today it is arrogant to behave as if those ten tumultuous years had never been; and it is stupid to pretend that comprehensive schools are somehow illegitimate, or that they could never work. To demand that the grammar schools should remain as they are because of what they once appeared to be is asking far too much; and to insist that they are still the best schools anyhow is taking far too much for granted.'

In 1965: 'In both quality and quantity at "O" level and in at least quality at "A" level, Caludon's results are probably as good as those of any grammar school in the city, and indisputably better than some . . Let us clear our minds of cant. By now there can be only one objection to the establishing of genuine comprehensive schools: not any hypothetical novelty, or youth, or inexperience, or size, or shape, or record (academic or what you will); but that simply by their existence they would so utterly invalidate the case for segregation, in which so many pretentious people have had such a vested interest, professionally and parentally, for such a long time. Let us stop talking glibly

about "a wind of change" which is blowing safely half a world away if we propose to go on stopping up our own educational doors and windows against it here in Coventry.'

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And in 1969? The doors and windows are more tightly shut than at any time during the last fifteen years. Separatism is no longer a protracted expedient for which officialdom makes embarrassed, apologetic noises; today it is unequivocally naked and unashamed. There is, certainly, a lot of fine talk about 'our eleven splendid, purpose-built comprehensive schools'; but only so long as they don't interfere with the operation of the two direct grant grammar schools for boys (guaranteed provision for the 'intellectually able minority' at a current annual cost to the Authority of £116,000 in place money) and the two LEA grammar schools for girls, the four of them being expected to corner some 91 per cent (Catholics not included) of the best young brains in the city. And it is becoming less and less reprehensible to think of children in terms of 'definitely grammar school material' and 'the comprehensive type', the latter being 'not good enough' to obtain a selective school place but 'too good' for a place in one of Coventry's nine remaining secondary modern schools.

Depending on one's point of view, therefore, either we have now got, after fifteen years' wishful thinking about integration, a designedly divisive set-up in which the old pecking order has merely yielded place to new; or we have at last achieved, after fifteen years' unhealthy preoccupation with transformation and incorporation if not actual extermination, a desirably diversified system in which the grammar schools (providentially saved from an unspeakable fate) and the 'comprehensive' schools (well-housed and giving yeoman service in their appointed station) can and should coexist in an aura of mutual approbation, to the greater glory of education in general and of Coventry in particular.

And in the name, of course, of the most magniloquent myth of them all: the freedom of parental choice.

Freedom of Choice—For Whom

W Roy Porter

Mr Porter is Headmaster of the Alexander Mcleod Junior Mixed School at Abbey Wood, London. He is a past president of the London Teachers' Association, and is now General Secretary of the Greenwich Teachers' Association. He has three children at Crown Woods Comprehensive School, London.

In Forum, Vol. II, No. 1, Mr MacCarthy wrote on 'the Comprehensive Myth'. In the course of his article he referred briefly to the task of primary heads in London of placing each pupil in one of seven groups in English, Maths and Verbal Reasoning (VR).

The most important factor in the transfer procedure is the VR group into which the child is placed. The group is decided by the head, taking into account the results of two or three VR tests which are calibrated so that the top ability band, comprising groups 1 to 3, consists of about forty per cent of the children, the middle band (groups 4 and 5) about thirty-five per

cent, and the bottom band (groups 6 and 7) about twenty-five per cent. The ability bands form the basis on which comprehensive schools are required to recruit a balanced intake. Following returns from primary schools, the Authority informs the comprehensive schools in each area how many children in each ability band can be recruited, in order that 'fair shares' shall be maintained. The formula varies area by area to reflect the spread of ability indicated by the contributary primary schools.

Information on group placing in VR, English and maths is only part of the contents of a profile of each

child which is completed by primary school heads, and which forms the main means by which secondary heads select their intake. The profile is completed early in the spring term, and contains a great deal of information of both an educational and a social nature – special abilities, handicaps, problems, parental attitudes, attendance record, and details of ability in English and maths. Subsequently the head interviews the parents of each child, and advises them on their choice of secondary school. This is then entered on the profile together with an indication as to whether or not the primary head approves of the choice.

The profiles are then sent to the secondary heads, who will then interview the applicants (with their parents) and, after considering the profiles, make their selections.

There is in each Division of the ILEA an Advisory Committee, made up of representative teachers, which supervises the whole procedure, and has powers to examine acceptances and advise the education officer if it considers a child has been provisionally accepted by an unsuitable secondary school. Such cases usually arise when a head decides to ignore the primary head's advice, or when a selective school has provisionally accepted a child with low ability ratings. A fundamental weakness of these Committees is that they have no power to examine a rejection by a secondary school, though there seems little likelihood of any alteration in this respect in the face of the jealously guarded rights claimed by some (mostly grammar school) heads to reject children without interference. I find this difficult to reconcile with the restrictions imposed on comprehensive school heads by the demands of the 'balanced intake' formula, designed to ensure a full intake of top group children to grammar schools and 'fair shares' of the remainder for the other schools.

There is no doubt, of course, that the profile system is an improvement on the eleven-plus examinations as a means of selection. There are, however, grave drawbacks with the working of the present scheme. I mention one or two of them.

I have indicated that the profile contains a great deal of social information about the child and his family. Sometimes the profile will reveal serious social handicaps, and undoubtedly many secondary heads recognise the necessity for helping the least favoured children by placing them in the school of their first choice. Some secondary heads operate this discretion with compassion. On the other hand there is firm evidence that some

heads of over-subscribed schools reject children with social handicaps, and accept only those children within the appropriate ability bands who are socially acceptable. This attitude has led, in turn, to a tendency for some primary heads to confine profile information to the minimum; the fullest social comments being postponed until school records are sent to secondary schools after selection. In this way they overcome the shortcomings of the second group of heads, but handicap those who are prepared to help underprivileged children.

Another cause for concern has been the habit of selection within the broad ability bands on which the balanced intake formula operates. I have explained that Groups 1 to 3 for verbal reasoning are in Band 1, groups 4 and 5 in Band 2, and groups 6 and 7 in Band 3. It is clear that over-subscribed and highly selective schools recruit from the higher groups in each Band, and the Inner London Teachers Association has for many years suggested that information about the seven groups for VR, English and Mathematics should be replaced simply by an indication of the three broad ability bands. They have been unsuccessful partly because secondary heads have claimed that this would withhold information vital to placing within the school, but more importantly because heads of selective schools have threatened to introduce their own entrance exams as a means of selection. So the seven groups stay. Meanwhile many grammar schools cream off the top two groups, and leave the group 3s as the only top ability children in some so-called comprehensive schools.

Mr MacCarthy referred briefly to 'a good deal of latitude and a great deal of responsibility' in the hands of primary heads. It will be clear from what Mr MacCarthy and I have written that the selection process depends entirely, in the first place, on the judgment exercised by primary heads when writing the profile, and in advising parents on choice of schools. It follows that the quality of a secondary school's intake depends largely on the attitude of primary heads of contributing schools, and in particular whether or not they support comprehensive education. In some parts of London the grammar schools are finding difficulty in recruiting a full intake at first choice stage, and are only filling up at second choice by either taking top ability children that comprehensive schools have been forced to reject because they have reached their quota under the 'balanced intake' formula, or by taking children from the middle ability band. In any case it will be noticed

(continued on page 93)

A New Education Act?

Caroline Benn

Mrs. Benn is Information Officer of the Comprehensive Schools Committee.

Two years ago there was nobody who thought a new Education Act was necessary. Today there is hardly anybody who doesn't think so.

Individually there have long been those who wanted changes in the law: for example, to enable more Authorities to provide nursery classes or to make religious observations discretionary. In January representatives from twenty-five professional bodies and educational organisations—including the NUT, the three main political parties, religious, secular and parent groups—took part in the Comprehensive Schools Committee's one-day Conference on a New Education Act. Speakers gave short explanations of the changes they wanted to see in present laws, or the new laws they wished enacted, to bring about the reforms they had in mind. A full transcript of these proposals is available from CSC, 123 Portland Road, London, W11. at ten shillings.

The Conference was in general agreed about a number of changes needed – including legislative assistance for comprehensive reorganisation. The main disagreements came over religious worship and on the timing of legislation. On the latter, some thought no changes could be made until the full process of consultations and discussions necessary for One Big Act – possibly not until 1975 – had been undertaken. Others – and this would include most of the Committee – feel smaller bills could help effectively in certain areas. One is reorganisation of secondary schools.

Nobody wants to go to law if they can achieve reforms without doing so. Had 10/65 been successful, no agitation for legislation would have occurred. But Circular 10/65 has only been half successful and in reorganisation half-success is particularly unacceptable. It is unsatisfactory to have some authorities with the bi-partite system and the eleven-plus, while others have fully comprehensive schemes. It is even more unsatisfactory to expect comprehensive schools to develop and flourish in those areas where grammar school sectors are also being maintained.

The Government now recognises the problem and has announced its intention to introduce legislation in the next session of Parliament to 'redefine' secondary education and to abolish the 11 plus. It is not yet altogether clear how 'redefinition' will promote reorganisation that is specifically comprehensive nor whether this legislation will deal with the many interim schemes with selection at 13 and 14. Printed here is a bill suggesting just one way that legislation could be presented.

This bill does not ask for immediate reorganisation, merely for immediate forward planning. Plans are asked for by 1970, and two extra years are allowed beyond this to assess and finalise them – which means that seven years in all will have been allowed for plans to be made. The question of finance is not avoided, for the date of finalisation of reorganisation – in such a way as could be tested in the courts – is left until July, 1980. To many this may seem rather too long a time – it means some Authorities will have had fifteen full years to make the change which others were able to make in two or three – but it is important not to rush reorganisation, especially where new building is required to see plans through. Any bill must be realistic in its requirements to succeed.

The virtue of this bill—should it or any like it be passed and supported by appropriate and effective departmental and ministerial policy—is that inexorably—through the 1970's—reorganisation will take place. To reverse the procedure any Government opposed to reorganisation would have to introduce specific anticomprehensive legislation. This would not be popular, or easy. As things stand now, however, any government anxious to maintain the status quo just leaves things as they are: with Authorities free to agree or refuse—or reverse decisions on—the requests of Circular 10/65.

All known opinion on the subject of reorganisation has now been sounded out; and all consultations have taken place in most areas. As one of the conference speakers said, everyone knows what everybody else thinks. There is majority opinion support for comprehensive reorganisation in the country. The reform is already half-way through. It would seem sensible for the community to see to it that it is now properly completed.

A BILL:

To complete the reorganisation of secondary education in England, Wales and Scotland.

Be it Enacted etc.:

- That all Local Education Authorities in England, Wales and Scotland, and all Diocesan Authorities, submit, or complete submission of, plans for the reorganisation of secondary education as requested by the Secretary of State for Education and Science in Circular 10/65 of July, 1965, in England and Wales, and by the Secretary of State for Scotland in Circular 600 of October, 1965, in Scotland.
- That these plans be in respect of all existing secondary schools maintained by each Authority, and of any new schools an Authority is planning to build.
- 3. That these plans show clearly the manner in which reorganisation will proceed in respect of each individual school, existing or planned, and in particular how each school will be developed as a fully comprehensive school, or as part of a fully comprehensive unit, receiving, and providing for, a genuine non-selective intake of pupils, with a curriculum adequate and appropriate for the planned age range of the school.
- 4. That such plans as provide for interim schemes, including schemes iii and iv of Circular 10/65 show clearly how and at what date, these interim plans will be developed into fully comprehensive arrangements in respect of each school.
- 5. That such plans show clearly the date when the reorganisation of each school will begin and the date when the reorganisation of each school will be complete and fully comprehensive and that the latter date be no later than July 31, 1980.
- 6. That where because of necessity to await the allocation of money for new building the date of reorganisation of a school can only be approximate, that such plans show clearly the way in which reorganisation will proceed once money is available, and further, that each Authority show clearly for all approximately dated projects the order of priority in which the Authority intends to undertake projects as money becomes available.
- 7. That all plans be submitted to the Secretary of State for Education and Science, or the Secretary of State for Scotland, no later than July 31, 1970.
- 8. That after July 31, 1972, no allocation of money for major secondary building be authorised to any local Authority whose comprehensive plans in respect of all its secondary schools have not yet been submitted to, and accepted by, the Secretary of State for Education and Science, or the Secretary of State for Scotland.

Group Work in Secondary Schools

and the training of teachers in its methods

Barrington Kaye, Head of the Education Department, Redland College, Bristol

Irving Rogers, Tutor at Redland College

160 pages

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This book provides secondary teachers with a practical and theoretical guide to group work as a method of teaching. It includes detailed suggestions on the implementation of group-work methods, examples of various schemes in action, and a chapter on the theoretical rationale of the approach. There are also suggestions for the training of teachers in group-work methods, and details are given of a large-scale training programme for which the authors were responsible.

Special Education in England and Wales

Second Edition

Stephen Jackson, Principal of Remedial Department, Jordanhill College of Education, Glasgow

160 pages 12/6 net

Since the first edition of this book was published, considerable concern has been voiced about the lack of co-ordination between the various services that cater for handicapped children and youth. In this second edition there is a new Appendix dealing with this problem.

Oxford University Press

Education Department, Oxford

What Pupils think of their Schools

A Bullough

Mr Bullough has been a primary school headmaster and on the staff of a College of Education. He is now an Assistant Education Officer in Gloucestershire.

Many of the arguments concerning the supposed advantages and disadvantages of the comprehensive system centre on academic standards, real or expected, and there is some danger that comprehensive schools might feel the need to justify themselves entirely in these terms. Certainly there is substance in the statement often made at public meetings, that if the comprehensive schools are to cater adequately for the whole range of ability, they should do at least as well by their more able children as the grammar schools they are to replace.

Few writers, research workers – or speakers – have given much thought to that other important aspect, namely the values and attitudes being promoted by the schools, whether comprehensive or not. If it is true, for instance, that those who might have formed the élite in a modern school would have few opportunities for academic or social leadership in the comprehensive school, then it seems reasonable to argue that they would hold their school in considerably less regard than their counterparts in the modern school. Yet little effort seems to have been expended on discovering, objectively, whether this is in fact the case.

Only one major piece of published research during the last few years has been devoted entirely to a comparison of the values and attitudes being engendered in grammar, modern and comprehensive schools. This was an investigation carried out by Miller¹ and was designed to measure and compare pupils' evaluations, attitudes and interests in the three types of school:

Of the four main hypotheses formulated by Miller, based on the alleged advantages of the comprehensive school, two are of particular interest in the context of this article:

- (i) that the comprehensive school helps to solve the problem of disparity of esteem, and
- (ii) that the comprehensive school gives greater purpose to children's secondary education.

Miller assumed that disparity of esteem between the

different types of school (hypothesis (i)) would be reflected in the value placed, by the pupils themselves, on the education being offered there, and he devised and administered a questionnaire which sought third year (14+) children's opinions about the schools they were attending, its courses, standing in the community, parental interest, and the desire to leave school. These five questions were presented as a forced-choice attitude scale, to each answer of which was given the numerical weighting 1, 2, 3, 4, 5, the lowest weighting being given to the most favourable answers. Thus it was possible to express numerically a group's opinion concerning each item, the mean rating being computed for this purpose. Significant differences were then calculated.

He also devised a 25-question attitude to school test to measure the assumption of hypothesis (ii), that if one school, compared with another, provides for its pupils an education which they consider to be more purposeful, this should result in the pupils having a better attitude to their school, and they should be more appreciative of the value of the school's courses, as well as of education in general. In this questionnaire the weightings 1 to 5 were given to each question in such a way that the highest weight was given to the most favourable response. The total marks for the 25 questions thus represented an individual's attitude to school and the higher the score the more favourable the attitude.

The two questionnaires were recently given to children in two parts of a county area, the method of administration and the subsequent statistical treatment being exactly as described by Miller². One of these areas has an established comprehensive school, whilst the other has equally well-established separate grammar and modern schools. The total school population of the two areas is almost identical although the social and intellectual composition shows a small but clear advantage in favour of the grammar-modern area.

The results of the two questionnaires are shown opposite:

Table 1

Feelings of groups of boys concerning aspects of their schools, expressed as mean ratings (the lower the rating, the more favourable the attitude)

	Mean Ratings			Significant Differences ²				
	1 G	CG	M	CM	G-	G-	$\tilde{C}G$ —	CM-
Aspects:					CG	M	CM	M
Feelings about school	2.29	2.21	2.79	1.95	ns	ns	ns	.01
Its courses	2.45	1.75	2.47	2.02	.01	ns	ns	.02
Standing in community	2.04	2.03	2.61	2.22	ns	.01	ns	.01
Parental interest	2.50	2.10	2.63	2.27	ns	ns	ns	ns
Desire to leave school	3.45	2.57	3.44	3.57	.02	ns	.02	ns

G = Grammar School

CG = Comprehensive 'Grammar' streams

M = Modern School

CM = Comprehensive 'Modern' streams

Only on one question, relating to the availability of courses in the two schools, is there any significant difference between the grammar and the comprehensive 'grammar' boys, and at .01 level, this is highly significant. It is also evident that on all five questions the CG responses are more favourable to the school than those of G.

It is not surprising to discover that the modern boys' response to question 3 reflects the disparity of esteem known to exist between grammar and modern schools. It is far more surprising to discover that the comprehensive modern boys' response to this question (and to questions 1 and 2 also) is more favourable than the boys in the separate modern school. This tends to suggest that those in the middle and lower reaches of the comprehensive school, some of whom would be the intellectual leaders in a modern school, are not denied suitable opportunities as was feared by a prominent leader-writer a little while ago³.

Within the comprehensive school itself, only on question 5, the desire to leave school, was there found any significant difference between the 'grammar' and the 'modern' streams, and this might suggest that the holding power of the comprehensive school is not high. A closer scrutiny, however, shows that all four groups responded less favourably to this question than to any other, and that the differences between the two comprehensive groups are similarly reflected in the separate schools of the other area. A possible explanation of this is that many of the modern boys (CM and M) were within a year or so of leaving school at the time of the

² Using Chi. Squared

enquiry, whilst most of the grammar boys (G and CG) were at the same time preparing for 'O' levels at least, and possibly many years of study before becoming independent in the same sense. Their responses, therefore, might not be a reflection of the real holding power of their schools.

A final point of interest is that the comprehensivegrammar boys responded more favourably than the grammar boys to each of the five questions, and the comprehensive-modern boys than the modern boys on four of the five questions, though these differences were not all statistically significant.

These findings are very much in line with those of Miller in the original enquiry, and there seems little doubt that the comprehensive school helps resolve the problem of disparity of esteem.

Table 2

Attitude to school test (25 questions) (The higher the rating the more favourable the attitude – maximum possible individual score = 125)

1	Mean Scores	Range	Difference bet	ween	Significant1
		-	means		Differences
G	68.04	43-92	CG-G =	14.31	.01
CG	82.35	35-107	M-G =	9.07	.02
M	77.11	46-102	CG-CM =	5.88	ns
CM	76.47	46-102	M-CM =	0.64	ns
	1 Analysis	of Varia	nce		

In contrast with the results shown under Table 1 it is at once obvious that the two modern groups (M and CM) responded in very similar ways. Between the two grammar groups, on the other hand (G and CG) there is a much more favourable attitude to school revealed by the comprehensive-grammar boys, and the modern school also shows up well in this respect as compared with the grammar school. Taken together these suggest that boys in the comprehensive and modern schools find their education more purposeful than those in the grammar school, and that the morale of the modern school boys, in particular, is very much higher than might have been supposed.

A full item analysis of this test shows that there was a tendency for the more lowly placed pupils in the modern school to record the highest individual scores. a trend reversed in the comprehensive school. This, without doubt, is a reflection of the greater sense of security these children obviously feel in a school where special arrangements are made for their education and welfare.

To sum up, the comprehensive school children showed that, compared with those in the separate

schools, they were in general more favourably disposed towards their school, with the single exception of the least able children in the modern school. On the other hand, the pupils in the modern school showed quite clearly that they were only too well aware of the disparity of esteem compared with the grammar school, a trend noticeably absent in the comprehensive school.

It would be interesting to know whether any practising teachers, in established schools, whether comprehensive or not, have at any time in recent years attempted an evaluation of pupils' attitudes towards their schools. This is an area about which surprisingly little is known.

- ¹ Miller, T W G, Values in the Comprehensive School, Educational Monograph No V, University of Birmingham. Oliver & Boyd, 1961.
 - ² Dr Miller kindly gave permission for this replication.
 - ³ Times Educational Supplement, 26th May, 1967. p 1805.

TEACHING HISTORY

A Bulletin issued by the Historical Association

Editor: John Standen, M.A.

As a service for members which will undoubtedly be appreciated also by teachers generally, it has been decided to publish a new Bulletin to be called 'Teaching History'. The first number will appear in May, 1969; subsequent issues will be dated November and May each year.

Each issue will contain articles on teaching history, give news and reports of Conferences and of Local Associations of History Teachers and include review articles on appropriate topics.

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Differentiation of Secondary Education in the USSR

Joan Simon

Joan Simon edited the first translation of work by Soviet psychologists on the relation of language and thought in child development—A R Luria and F Ia Yudovich, Speech and the Development of Mental Processes in the Child (Staples 1959; reprint 1966). She was also translator and co-editor of the papers published in Educational Psychology in the USSR (Routledge and Stanford University, 1963). She has contributed reports on the development of comprehensive education to Forum, written papers on the history of education and is author of Education and Society in Tudor England (Cambridge, 1966).

In the USSR it is intended to raise the age of compulsory education for all to 17 by the academic year 1970-71, and moves towards this objective have long been under way. They include an overhaul of the central administration (notably the establishment in 1966 of a national Ministry of Education for the USSR, to which the Academy of Educational Sciences - formerly of the RSFSR - is now attached as the chief research institution); an extension of inspection, and a considerable measure of curriculum reform. This last has involved mass refresher courses for teachers, and modifications of the curricula of colleges of education, as also the preparation of many new textbooks. The dateline for completing the introduction of the new curriculum is also the academic year 1970-71, so that the transition is already well in hand.

What do these changes imply, in the organisation of the secondary system, and in terms of the internal structure of the general secondary school? These aspects may be taken in turn, drawing on information collected during a month spent, last summer, in the USSR, studying the subject with the assistance of the Academy of Educational Sciences.

As is known, the Soviet educational system recruits at the age of 7 and takes all children through a common, basic course up to the age of 15. This is the eight-year school, grades I-VIII; it has been universal since 1963 when extension of the period of compulsory education from seven to eight years was completed. An exception to the general rule are the special schools for music and ballet which recruit talented children at an early age and allot additional time to the special subject, though otherwise keeping to the lines of the standard course.

After grade VIII, at the age of 15, there is a parting of roads. Most children remain in the general secondary school and proceed to the ninth grade, but some move to specialised technical schools (or technicums) and some to vocational schools biased towards a par-

ticular industry. (These schools come, respectively, under the Ministry of Higher and Specialised Secondary Education, and a Central Committee for Vocational and Technical Education.)

An official publication gives the relevant figures for the RSFSR in 1968. About 67 per cent of those completing grade VIII pass on to grade IX of the general secondary school, 15 per cent move into technicums, 18 per cent continue their education in vocational schools or in part-time (shift) schools for those directly entering employment.

Comparable round figures for Leningrad (projected by the deputy director of education for the city for the beginning of the 1968-9 academic year) are as follows. Those completing grade VIII will number 41,000, of whom 28,500 (or 70%) will pass into grade IX, about 9,000 (or 22%) will go to technicums, and about 3,500 (or 8%) to vocational schools. Here the numbers going direct to work are already very small indeed. This is largely because factories are unwilling to recruit them; there is now little demand for the totally unskilled vouth, release from part-time training is troublesome, and recruitment from vocational schools preferable.

On the other hand, in rural areas the number remaining in grades IX and X of the general school, or attending technicums, is lower than in the cities and the number directly entering employment greater – as a comparison of the figures for Leningrad with the average for the RSFSR will suggest.

Oddly enough, in so highly organised a system, it is difficult to discover what are the long-term plans about the proportion to be provided for in technicums and vocational schools. Nor, for that matter, is the current pattern of recruitment altogether clear. According to local administrators of education, there is competition between the three different schools to recruit at 15 from the basic school and the technical-vocational sector is allowed to explain available courses to pupils. But education authorities appear squarely in favour of enabling

all pupils, ultimately, to complete their education in the general secondary school, run on polytechnical lines; and there has been a progressive increase in the number of ten-year schools.

After 1970 it will be the task of the LEAs to check where every pupil over 15 is studying, to ensure that compulsory ten-year education is a reality, and for their part they plan to provide for as many as possible. But there is considerable leeway to make up in the provision of school buildings, and elimination of the system whereby two schools work in shifts in one building, and no great increase in numbers in the top forms of the general secondary school is immediately expected; particularly when, as in the cities, these already provide for some 70 per cent.

The technical-vocational sector is planned at another level, to provide the places needed to train the number of specialists in relevant fields needed by the economy. Moreover, this figure is likely to be arrived at on a regional, rather than local, basis and the schools are expected to recruit from relatively far and wide. A conflict only arises, then, if attempts are made to take the easier course and fill places from the immediate locality.

The general secondary course

The fact that some 33 per cent of 15-16 year olds pass into schools of a technical type means that the general secondary school is not fully comprehensive in grades IX and X. This has always been the case. But there have recently been modifications of its standard course, and some moves towards differentiation of the curriculum in the early grades. These have been interpreted as an introduction of selection, with specialisation, and so a retreat from the common secondary school.

In the first place, it should be noted that the measures introduced in 1959, which required specific production training during school hours—and a corresponding lengthening of the course from ten to eleven years—are no longer operative. The experiment proved unsuccessful from both the educational and vocational angles. Instead, polytechnical education in the ten-year school is now conceived of in terms of the way all subjects are presented, in a theoretical as well as practical sense, and the standard curriculum is being reframed accord-

ingly. In addition, two hours a week are allotted to specific 'labour education' in every grade. This often amounts to little more than the handwork, woodwork, metalwork and domestic science taken in our schools, at least up to grade VIII.

But technological subjects figure prominently among a wide range of optional subjects to be chosen from in grades IX-X for which from four to six hours are allotted - a new departure. Here the emphasis is on study of fundamental principles, rather than merely practical aspects - in such fields as radio-electronics, cosmic physics, the chemistry of polymers, as well as more familiar school subjects. Great importance is attached to this introduction of optional subjects in increasing flexibility at the top of the school; it allows for a modicum of specialisation to a relatively high standard, according to choice, after the age of 16. Inevitably, however, choice is restricted by the availability of equipment, particularly in technology. Some impressive equipment is being provided but, necessarily, each school tends to concentrate on particular fields; though this applies less in the humanities.

However, the new curriculum for grade X appears to be biased towards science. The total hours allotted to different spheres in the standard programme are, to humanities 9, science 11, mathematics 5, and to optional subjects 6; if, then, the latter include scientific subjects the bias may become marked. (In addition 2 hours are devoted to labour training—the nature of which can also be chosen within the limits of available facilities—and physical education respectively.) It would also seem that, in the restructuring of programmes, it is to the scientific subjects that most attention has been paid. There is much less evidence of fresh thinking in the humanities.

The ten-year school, modified in this way, remains the main road of secondary education. But in certain of the schools concerned a bias towards a particular subject from grade II, age 8, has been introduced, on the model of the course in music and ballet schools. The majority of these are 'foreign language' schools, which have increased quite rapidly in number in urban areas, but some schools have a special bias towards a science, mathematics, or literature.

Enquiries last summer to local education authorities produced the following breakdown of the total number of specialist schools in 1967-8, in Moscow (pop. 7 millions) and Leningrad (pop. 3,800,000) respectively:

	Moscow	Leningrad
Language schools	68	34
Mathematics (and computing)	45	10
Chemistry	20	6
Physics and radio electronics	15	6
Language and literature	5	2
Biology	2	_
Music	1	-
		-
Total	156	58

In Leningrad, it was thought that the science and literature schools might be phased out because, with the development of optional subjects, there is no longer the same need. But the language schools meet a very real need, are in great demand and will increase in number. At present, the 34 Leningrad schools comprise 20 English language, 5 French, 5 German, 1 Spanish, 1 Italian, 1 Hindi, 1 Chinese. There are 2 Chinese schools and I Hindi in Moscow, all boarding schools. Given the general demand for language schools, an additional ten were opened in the city this academic year.

It depends on the area where you live whether your child enters, say, an English language school, for specialist schools (except for the few which are boarding schools) recruit from the immediate neighbourhood and are obliged to take all local children wishing to enter, like any other school. The one proviso is that children have no defects of speech and enjoy good health; a decision made on the basis of an examination by qualified specialists. If all places cannot be filled from the school's catchment area, on the normal pattern, there is a careful plan for filling them otherwise, subject to the approval of the education authority. Those local children not accepted go to the immediately neighbouring school whose area often provides substitutes.

Good health is required because, though school hours have been generally reduced to prevent overloading, the language schools work from two to four additional hours from grade II. (Two hours extra are also allowed, incidentally, in all schools of the union and autonomous republics where teaching is in the native language and Russian a compulsory second language). More extra time is required in the top classes because the time allowed for an optional subject is, in these schools, given to the special language.

Though the method of recruitment is now rigorous, to retain the neighbourhood nature of these schools, they

are nonetheless favoured by a more generous staffing ratio. That is, allowance is made for classes of thirty-six, to be broken down into three groups of twelve for special language teaching, whereas the normal school allows only for halving classes for certain work.

A number of subjects have also been taught in the special language – history, for instance, and literature – and one English school visited had turned the period of 'labour education' into typewriting, using English material. But at this relatively early, and still somewhat experimental, stage, practice is not uniform. For instance, there are doubts whether it is proving satisfactory to teach Russian history in English and the school referred to above was abandoning the practice. That concentration on a foreign language has, otherwise, produced successful results, both in an educational and vocational sense, was certainly held in the schools seen and seems to be generally accepted.

Special 'science schools' are organised on similar lines, with the exception of four 'mathematics schools' run by universities, all boarding schools - Moscow, Leningrad, Kiev, Novosibirsk. These are openly intended to recruit particularly talented mathematicians at 15 or 16 for an intensive course in grades IX and X, and the educational programme is planned on special lines by university professors who have the oversight of it. Each of these schools recruits from an extensive area, on the results achieved in what are nationwide 'Olympiads'. These have long been held in various subjects and it is the children successful in such concourses who are entered for the special mathematics schools. all of which are boarding schools. The Moscow school, for instance, has a catchment area covering the RSFSR south of Vologda, stretching east to the Urals, and south to borders of the Ukraine, including Bielorussia.

By definition, entrants come from small places which lack good facilities for advanced teaching, for residents in larger urban areas are excluded from consideration. This was the main object of the schools. In university mathematics departments the motive has also been to experiment with new curricula, and methods of presenstation, and uphold claims for special treatment of a subject whose practitioners frequently reach a peak of achievement in their early twenties. More generally, in the USSR, as elsewhere, university specialists complain that schools do not prepare entrants adequately.

These schools have aroused much interest and there is a demand from other universities to start new ones. But the Ministry of Education prefers to stress the need

to digest the experience so far accumulated before taking any further steps. It is also underlined that various branches of mathematics will in future be studied as optional subjects in grades IX and X, so meeting former criticisms and providing quite sufficient well-qualified recruits. Moreover, the new mathematics programmes now coming into force in all schools, as part of a general overhaul of the curriculum in preparation for lengthening school life to 17, owe much to the advice of the nation's leading mathematicians who have sponsored the experimental schools.

These various developments, some frankly experimental in preparation for general changes, do not constitute a move towards selection, or selective schools, in the usually accepted sense. Rather they interestingly underline the difficulty of maintaining a common general education at the secondary stage, balanced from an educational point of view and keeping open the road to advanced studies, and meeting the needs of a planned economy for specialists of various kinds in an age of rapid scientific and technological change.

The first objective remains the main plank of educational policy. But various pressures have brought a modification of what has tended to be an over-rigid standard course, and considerable flexibility has been introduced in the two top grades of the general secondary school as the period of compulsory education is extended to ten years. This differentiation within the general secondary school after the age of 15 may, however, eliminate the need to differentiate schools; and to phase out technical and vocational schools would be to extend the principle of a common secondary education.

In working towards greater flexibility there have been various experiments. In particular, specialisation in certain subjects has been introduced in some schools from an early age. When questions are asked about the language schools the dilemma referred to above becomes apparent. The answer is that there is a great, and increasing, need for qualified linguists which can only be met by concentrating resources, at any rate until the number of qualified language teachers itself increases; moreover, these schools are viable from an educational point of view. Certainly, there is no logic in the fact that residents in region A from Moscow, say, have access to a special language school, while region B residents have not. On the other hand, recruitment by residential area is preferable to selection in any other form.

This solution cannot, however, be applied outside urban areas. In general, new developments have widened the gulf between facilities in town and country, already too large. It was one of the aims of the 1959 policy to close this gap, by making boarding schools the general provision, but this proved an impossible target. There are still many such schools, however, catering particularly for those with family disadvantages or special needs, and they may help to provide the answer to other problems in thinly populated areas. Meanwhile, it is the relative lack of provision in rural areas representing a form of concealed selection, rather than any moves towards formal selection, that is now arousing concern. This is the key problem to be solved if there is to be equal opportunity of access to a full secondary education in line with the needs of an age of scientific and technological revolution.

A New Encyclopaedia

There is now available an up-to-date Encyclopaedia of Education, published by Anthony Blond. The editor, Edward Blishen, a long-standing member of Forum Editorial Board, has carried out a Herculean task in master-minding this publication. It is not only that it contains over half a million words, and deals with every conceivable aspect of education, but that the entries contain modern appraisals of each issue whether it be intelligence testing, streaming, or whatever; most entries include succinct suggestions for further reading.

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Discussion



Unstreamed Teaching in English

Westbourne is an uncreamed, mixed Junior High School of the Leicestershire Plan type. Our numbers are about 400 and we use a combination of setting and streaming for most subjects. We have begun this year to teach English to unstreamed groups for first year children for several reasons:

- a) I have felt for some time that a creative approach operates individually and therefore streaming or setting of children working under such an approach becomes unnecessary or irrelevant.
- b) We all know how we, as teachers, feel when confronted by lower stream classes, and similarly how apathetically any but the brightest

- children respond when confined in one-ability groups: this leads directly to the very slow progress made by most children in developing skill in the writing and speaking of their own language.
- c) A subsidiary motive was the desire to assist staff not convinced of the validity of contemporary methods of English teaching to try out new approaches in a situation where success would be highly probable.

We began this year, therefore, in English only, with four mixed ability house groups and a small remedial class of children whose reading ages were in the sevens and lower eights and who could spend about five hours with a remedial specialist, but also join their house groups for an hour of additional English during the week. The Headmaster encouraged the scheme and was able to organise a difficult timetable (we are housed in two quite separate buildings) so that for at least an hour during the week the entire first year could meet together during English time whenever required.

Meetings between the five teachers concerned took place and it was agreed that an approach through themes would be adopted. Members of the department, although not enthusiastic privately and with unstreamed teaching being against the climate of opinion in the school, nevertheless gave generous co-operation.

For an opening Theme, 'Me and Mine' was selected as an easy beginning for the children and an opportunity to get to know them quickly. The method of working was as follows. I prepared for each member of the department a folder containing suggestions for different kinds of talking and writing, together with a note of poems and stories relevant to the theme and available for reading to the children. This included BBC pamphlets ('Listening and Writing' in particular) and references to poems in the numerous

anthologies we possess. The suggestions and extracts were not compulsorily to be used by all staff; they were the literature that I should use myself and other staff might well disregard them and use their own favourite pieces.

We began by talking to the entire year about what we were attempting and hoping for and then divided into house groups to pursue such topics as family, friends, hobbies, pets, previous schools, favourite possessions and many other ideas contained in the theme 'Me and Mine'. Frequently a poem or story was the starting point, followed by class discussion, group discussion, writing and drama. Written work was always done in rough and then, after correction and advice, copied on to file paper which, with illustrations, went towards each pupil's personal collection of work on that theme, enclosed in covers made with the co-operation of the Art Department. Some poems and other writings were also mounted on large sheets of sugar paper, with pictures.

When half-term came, a display of every child's work was set out, with a tailor's dummy of a school girl in the centre to act as an eye-catcher. Considerable interest was shown throughout the school.

The second theme chosen was 'Animals'. We noted that the children were impatient to start. It began with a visit by a lady dog-handler who talked to the first-years about training dogs, and demonstrated with the champion Alsatian which accompanied her. The entire year listened intently and a free discussion and question session followed. Again I provided folders and the half-term's work which emerged from this was displayed for when the children returned from their Christmas holidays. Topics written about included reports on the visit, happy and tragic experiences with animals, poems and prose about a wide variety of living creatures brought to school and borrowed from the Science Department, writing from

pictures and so on. The local Museum loaned exhibits in glass cases to add interest to the attractive display of work.

The current theme is 'Fantasy' and the fourth theme - taking us up to Easter - will be concerned with Spring and the changing Earth. After each theme, a display of all the children's work will be mounted. We feel that the pleasure of seeing one's own creations put out for others to read is a valuable incentive frequently neglected in secondary schools.

Apart from this theme work, which occupies a variable amount of any week's English time, we also read to the children, give time for drama work which generally develops from the theme work, and also make time for private reading and changing library books.

To sum up what is being achieved: the children, regardless of ability, are working vigorously together and enjoying it; the staff of the department. with these classes at least, are using a creative approach and finding benefits in it; poems and other literature are being read and listened to not in 'poetry lessons', but as a contribution to the current interest, and can be enjoyed alongside original, similar writing by the children themselves; the more limited children are working very well - not apathetically - and in many notable cases definitely progressing; the more able children are working with zest and direction, producing poems, stories and other kinds of writing in quantity and quality. For these reasons the unstreamed approach to first year English seems highly desirable. I hope that we shall extend it into the second year next year.

D CHURCHILL, Head of English, Westbourne School, Swindon.

Slow Learners

I am now in my fourth year as a remedial teacher in a junior school

built for 480 with 540 on roll. My main task is to teach the children to read. At the beginning of the autumn term I test all the first-year children individually to assess their reading ability. About half of them, ie between sixty and seventy, either can't read or need help, having a reading age below seven years. These children are divided into groups of twelve and come to me every day for half an hour, and continue to come until they have finished whichever series of graded readers they have chosen to read, and they, their class teacher and I feel that they can do the work in the classroom without extra help. The slowest learners continue to come throughout their four years in the school if necessary, but during the time I have been doing this work no child has been transferred to a special school, and no child has left the school unable to read.

I have a small room with books displayed round the walls and every series of graded reader so the children can choose a book they would like to read within their ability, and change to another series if they get bored with their book. They learn the new words on each page so that they can recognise them on other pages in that, or other books. They learn their sounds and to recognise new words by those they know in the same family. They can take another book as well as their reading book to read to themselves, and bring it back the next day. The children know they are missing a lesson to come for reading, and if it is one they like this is an incentive to learn to read as soon as possible. The poor readers are often the children who are a nuisance in class and this gives the teacher a welcome relief from these children for half an hour each day and gives the children the individual attention they want and need. It also gives the quiet, withdrawn children the opportunity to develop and gain confidence in the informal atmosphere of the small room. In this way I am able to help

over a hundred children individually every day.

During a school year the numbers coming for reading drop, and I am then able to start groups for those needing help in maths or spelling and writing. The poorest children may come to me for all three subjects but they are never classified, and have all their other lessons in unstreamed classes. I work closely with the class teachers, and a child can start coming to me at any time during the year if I have room. I also take children with behaviour problems, on their own if necessary. I have found the cause is often because they couldn't do the work in class and the teacher had not the time to give them the help they needed. The classes in the school are all of forty or more children. We have found that this is one way of dealing with the slow learners without separating them into special schools or remedial classes.

MISS E E D NEWBIGIN, Huyton, Liverpool

FREEDOM OF CHOICE—FOR WHOM?

(continued from page 81)

that the proportion of so-called top ability children is forty per cent, which is based on the notion that about half of these will go into grammar schools.

Though I have examined the transfer procedure from the primary viewpoint, I have shown that my conclusions are those of Mr MacCarthy - that the whole business falls short of the ideal principally because a true comprehensive system cannot exist side by side with grammar schools. While this situation exists in London, the part played by the profile will reflect the incompatibilities of the secondary school set-up.

Opinions expressed in this article are those of the author and hence should not be attributed to the ILEA.

The Observational Study of Classroom Groups

Frank Worthington

Mr Worthington was trained as a Handicraft Teacher at Loughborough. He worked in secondary modern schools in Walthamstow for 8 years and was subsequently senior lecturer in Handicraft and Education at the College of St. Mark and St. John, Chelsea. He is now principal lecturer and Head of the Department of Education at Bath College of Education.

One of the most interesting things about teaching is the existence of tremendously wide ranges of professional practices designed to serve the same, or similar, ends. Teachers trying to make an intelligent appraisal of different forms of organisation such as streaming and non-streaming, or of alternative teaching methods, naturally look for research evidence to supplement their own experience. The sort of evidence available depends upon the kind of questions asked by research workers in a particular field, and the methods of investigation that they have used.

Many researches take the form of 'pre-treatment' and 'post-treatment' testing. This is the standard method of research into the comparative effects of allegedly different systems of teaching, or conditions of learning. Unfortunately, the results of such investigations have often been disappointing, in that they have not demonstrated the anticipated superiority of interesting and promising new methods. Differences between experimental and control samples, in such studies, have commonly proved to be small, and variable in direction. Similar researches by different people have frequently produced conflicting results. Findings such as these are difficult to interpret. In some circumstances it it possible that the methods are different in character, but have similar, or negligible, effects. Alternatively, one could hypothesise that the methods of teaching, or conditions of learning, are only superficially different, and that they actually provide children with essentially similar kinds of educational experience. At the moment we are often unable to make other than subjective judgments about such matters. This situation is not uncommon in education, and there can be little doubt that techniques for observing, analysing, and evaluating what actually happens in classrooms, need further development and wider application.

Observational studies have been made by workers such as Biddle, Flanders, and Bellack, in the United States, and by Nuthall and Lawrence in New Zealand, but efforts have so far been mainly directed towards the recording and analysis of verbal exchanges between teachers and children in class teaching situations. This

work has been valuable, but it has had a number of limitations, such as the general failure to identify the contributions of individual pupils, and a common neglect of non-verbal activities. Another limitation has been the restriction of observation to class teaching situations. For many years primary schools have experimented with various forms of group and individual work designed to supplement or replace class teaching. Children nowadays often pursue learning activities in informal situations which permit them to talk to each other about their work, and to collaborate in practical activities. Enquiry methods of several kinds, which are common in secondary as well as primary education, usually involve some form of joint activity by groups of children. Many assumptions are made about the social and the cognitive value of group learning situations, but they are largely unexamined and untested. It is reasonable to think that the incidence of different kinds of interaction will vary according to the membership and the structure of groups, and with the nature of the tasks they face. The problem is exceedingly complex, and without research information we are unable either to evaluate such methods or to use them systematically.

Some observational researches in classrooms have recently been undertaken in England, at the universities of Birmingham, Nottingham, Lancaster and Manchester, as well as by the NFER. A research undertaken by the writer while on study leave from a College of Education, and working at the School of Education, University of Leicester, has concentrated on the study of small working groups of children in primary and infant schools. The aims of the research were, firstly, to develop techniques and instruments for observing, recording, and analysing the activities of the children, and secondly to apply the techniques on a limited scale, in an attempt to gain some insight into what actually happens when groups of children are working together in some known situations.

In the Leicester research the aspects of group life that were selected for study were decided after a preliminary period of observation, and many discussions with teachers. This first period of observation produced a wealth of anecdotal evidence that provided the starting point and the orientation for more systematic later work. A few examples of these early observations will illustrate the usefulness of this work. (An account of some similar observations, 'Anatomy of the Non-Streamed Classroom', by Forum Observer, was published in Forum, Vol. 8, No. 3.)

A group of two boys and two girls, all eight-yearolds, were set a task involving the weighing of small wooden blocks, of three different sizes, into mixed onepound lots. They were then asked to produce halfpound lots, but were provided with only one set of scales and a one-pound weight. The two boys took possession of the scales, and set about the first part of the task with enthusiasm. This job was quickly done, and they moved on to the second task with a great show of industry, but with little understanding. and met with no success. The writer was acting as a participant observer for this work, and he quietly suggested to one of the girls that she should try to solve the problem. She quickly declined, with some embarrassment, although it was fairly obvious that she understood what was involved. The boys were soon frustrated by their unsuccessful attempts to solve the problem by trial and error methods, and readily agreed to the observer's suggestion, to them, that the girls should be allowed to try to solve the problem. They pushed the scales and blocks across to the girls with derisive glee, and obviously considered the idea of the girls attempting a problem that they had failed to solve to be quite ludicrous. The girls immediately performed the correct operations and were successful at the first attempt. They appeared to have complete insight into the problem. Their result was immediately challenged by the boys, who demanded replication of the operations, and accused the girls of cheating. The girls capitulated under the hostile pressure, abandoned the technique of adding blocks to the scales in pairs (to permit subsequent even division), and failed to repeat their previous success. The boys were delighted, the girls relieved, and normal role relationships restored.

A particular interest was taken in the cognitive level of interaction, as shown for instance by the kinds of questions asked within the groups, the explanations given, and the discussions of cause and effect relationships. Very few instances of sustained reasoned discussion were observed. The best example was encountered during work on a comprehension exercise by a group of seven-year-olds. The children considered the evi-

dence for and against various points of view in an extremely intelligent manner. They were considered to be an average group of children, in an unstreamed class in a school serving a 'council house' estate. This level of discussion was not observed on any other occasion, even though many days were spent with nine- and tenyear-old children in working groups. It was tentatively concluded that the incidence of logical or reasoned discussions, by groups of children in school, owes more to the task situations in which they are placed than to their developmental level. This level of interaction rarely seems to be demanded by the work being attempted, and consequently it does not appear. The intrinsic nature of the tasks may often demand thinking of a high order, but the work relationships of the children are not such as to require verbal communication at the same level. It is not easy, in fact, to design group task situations in which reasoned discussions are an inescapable part of the work to be done. The observation of groups of children doing practical mathematics, for example, produced few records of verbal interaction about the work being done, and little evidence of co-operation. Children in nominal groups are usually engaged in individual work.

Fairly sophisticated electronic aids were used for the recording of a final sample of group activities to be used for detailed analysis. Overhead microphones were found to pick up too much background noise, but small individual radio microphones, with individual receivers, were used with considerable success. Even whispered conversations could be received and recorded. (This equipment was kindly lent by Prof. Basil Bernstein.) A closed circuit television camera, with monitor and videocorder, was also used, thanks to the assistance of SONY G.B. This equipment worked well even under poor lighting conditions. The children's speech was recorded on both the videotape and one of the two tracks that could be recorded separately, but simultaneously, on a stereophonic tape recorder. The other track was used for a commentary from the observer, who identified the speakers, and the people to whom they were speaking, when this was known. This tape recording was used for the production of a transcript of the verbal interaction.

A category system was developed for the encoding and analysis of the children's activities during successive playbacks of the videotape records. A twelve-pen Event Recorder, operated by a simple keyboard, was used during playbacks to make a record on paper of the duration and sequence of the children's activities. The accurate time-indexing of the records was made possible by including the face of an electric clock in the picture, and this was synchronised with an electronic signal, at minute intervals, which produced a sound signal on the stereophonic recording. Mr George Clements, Senior Technician at the School of Education, University of Leicester, operated the equipment with great efficiency, while the observer recorded the commentary. The observer and the equipment seemed to have little effect on the children, once their presence became familiar. Children were allowed to experiment with the microphones, and to see themselves on the monitor, until their curiosity was satisfied.

The final sample was composed of three groups of children, each composed of two boys and two girls. The groups were made up of six-, eight-, and ten-year-olds, respectively. Each group was recorded for periods of thirty minutes, in each of six task situations, covering three subject areas, mathematics, science, and 'English'. The task situations also covered a number of other variables, such as co-operation requirements and goal clarity.

The analysis of the records of the children's activities in these situations is a time-consuming process and is far from complete, but the evidence so far available seems to suggest that variations in task situations have very considerable influence upon the nature and amount of interaction within children's working groups, and that these changes are reasonably predictable. Given some further insight into the most influential factors in such situations it should no doubt be possible for us to exercise greater control over the conditions for learning in small groups.

The research described here used sophisticated techniques for recording and analysing the work of children's groups. There are a number of reasons why this is useful, but it is important that we should appreciate the fact that the productiveness of such research depends ultimately not upon the range of hardware brought into use, but upon the insight of the researcher into the problem, and the nature of the questions he formulates and tries to answer. The people in the best position to develop such insights are the teachers who are using group methods, providing that they have the ability to be objective in their observation and appraisal, and imaginative in their approach. The writer is very grateful to the many teachers who have already assisted this research, and are themselves contributing

to professional practice by the development of expertise through intelligent day-to-day work.

The above-mentioned research was made possible by financial assistance from the Research Board of the University of Leicester, and from an Educational Trust.

Some New Books

Life in Classrooms Philip W Jackson

Holt, Rinehart & Winston (1968), pp. 177, 38s.

A descriptive analysis of life in American elementary school classrooms. The kind of free-ranging, probing enquiry badly needed in this country too.

Pygmalion in the Classroom Robert Rosenthal and Lenore Jacobson

Holt, Rinehart & Winston (1968), pp. 240, 38s (paperback).

An experimental study into the effects of teachers' expectation on pupils' performance. Dramatically confirms the hypothesis of a self-fulfilling prophecy inherent in procedures such as streaming. Fascinating in its implications for all teachers.

Perspective on Plowden R S Peters (ed)

Routledge & Kegan Paul (1969), pp. 103, 8s (paperback)

A critique of child-centred primary education, as sanctioned by Plowden, from members of the London Institute of Education. An interesting sociological comment from Basil Bernstein and Brian Davies. Elsewhere tendentious and misleading.

Death at an Early Age Jonathan Kozol

Penguin (1968), pp. 223, 5s.

Subtitled 'the destruction of the hearts and minds of Negro children in the Boston public schools'. Of far more than local significance.

The Sociology of Education Olive Banks

B T Batsford (1968), pp. 224, 42s.

Very useful textbook in its field.

Frames of Mind Liam Hudson

Methuen (1968), pp. 134, 25s.

Extends Hudson's work on the distinguishing characteristics of arts and science students. His first analysis, Contrary Imaginations, now available in paperback.

Group Study in a College of Education

E Altman

Mr Altman has taught primary and secondary children in Manchester. He moved to Leeds as member of the Education Department when a day college for mature students was established, later being appointed Head of the Department. He is now Head of the Educational Studies Department at Bingley College of Education.

It is not always easy to persuade practising teachers to try 'new' methods such as group study and team teaching in schools, and even the more recently qualified teachers find themselves unable to put such methods into practice with enthusiasm and confidence. It is hardly surprising that this should be so, for their own education has been strictly individualistic. The emphasis has been upon independent study accompanied by a strong element of competitiveness.

If this attitude is to be changed, one should expect to find it being effected in colleges of education, and it can fairly be claimed that much has been done to bring these newer approaches to the attention of students. It has to be admitted, however, that the methodological implications for teacher education of these approaches are not always appreciated in the colleges, where teaching often falls far short of what it is hoped to find in the schools, and tends to encourage the individualistic attitude. Students often come together in numbers varying from 12 to 20, and are therefore referred to as 'groups', but on many points these fail to qualify as groups in a social-psychological sense.

- 1. One essential characteristic which gives a group its dynamic quality is a common purpose, but the college units cannot be truly purposive, in that they rarely have a task to perform as a group, that is, a collective task.
- 2. A group is distinguished by the interaction of all its members with each other, including the leader. In practice, however, the college work is usually not only tutor-directed, but tutor-centred; students discuss material in such a way that lines of interaction run only from individual students to the tutor, and not amongst them all—like the spokes of a wheel instead of the meshes of a net.
- 3. Instead of studying collectively, students disperse after meeting the tutor, and go off to continue their studies independently, in preparation of their individual essay, and almost inevitably, the atmosphere is competitive.
- 4. More often than not, material for discussion would have been received in lecture form, including

much which students could profitably acquire for themselves.

As a contrast with this mode of study, their lecturers and their books reiterate the need to encourage children to learn at first-hand, and in groups. All this exhortation must strike students as being strangely at odds with the way in which they have been taught in the past, and with their current methods of study. They find themselves in a situation making it extremely difficult for any but the most able of them to break out of the web of dependence upon the tutor and attain that degree of intellectual maturity which is an essential component of the flexibility we hope to find in teachers of the future.

In an attempt to overcome the dichotomy between theory and practice my colleagues and I introduced changes in the methods used for the study of some sections of the education course. The intention was twofold: (a) to put theoretical principles into practice, and (b) to move from study with an individualistic bias towards learning by co-operative means. It is not claimed that the approach is startlingly new; a similar system may well be in operation in other colleges, but in the hope of encouraging its wider application, a short account is given as an illustration.

The study of the history of the education system does not generally have strong appeal for the majority of students, and group study was introduced for this. The usual treatment had been to have a series of six lectures at weekly intervals for a whole year group of some 130 students, with follow-up discussions in smaller numbers led by a tutor.

The lectures and tutor-directed discussions were dispensed with almost entirely, and responsibility for study placed firmly upon the group members. An initial lecture serves as an introduction to the study unit, presenting an outline of the period from the early 19th century to the present day, with reference to the major legislative landmarks, but placing them firmly in their social setting, so that historical facts would not become dissociated from the economic and social conditions of the times. Duplicated guide sheets containing helpful

notes and a reading list are distributed, and the students' assignment is set.

The assignment is for each group, consisting of about 15 students and a tutor, to produce a summary of the development of the present education system in a form which could convey the essential information concisely. Six weeks are allowed for the completion of the work, and stress is laid upon the value of visual presentation. Apart from these instructions, the groups are left quite free to decide for themselves the way in which material should be organised.

No firm procedure would be laid down, but the usual pattern is for students to be advised at the first meeting of the group that they should each carry out a general survey of the ground to be covered. The preliminary discussion of the assignment usually reveals a feeling of helplessness in the students, of not knowing how, or where, to begin, but after a short time, interest is aroused, and lively suggestions begin to flow on the method of working which they wish to follow.

For the purposes of the general reading it is essential that there should be accessible as large a number of books as possible, in addition to those which students might own privately. College libraries are unlikely ever to have a collection large enough to satisfy all the needs of students and staff, especially when numerous students are engaged on the study of the same topic, and this can cause real difficulties. To overcome this to some extent, however, all books in the library relevant to the topic have to be placed on temporary reserve, which makes them available for reference purposes throughout the period of the assignment.

When the group next meets, its members are in a position to be able to discuss ways of breaking down the collected material into sub-sections which will be the responsibility of one, two, or three members, according to preference. Once again the dynamic element of group working emerges, since the decision as to how the material is to be divided, and the allocation of work, is one which is taken by the members of the group themselves. While one group might decide upon a chronological division, taking periods of 30 or 40 years, another might choose a longitudinal approach, following a number of themes through the whole period; the themes could be 'The changing schools', 'The changing curriculum', 'Personalities and education', 'The finance of education', and many others.

Another decision which must be taken by each group at a subsequent meeting is upon the manner in which the material is to be displayed. It might be agreed that each section should have freedom to display its work however it wishes, or the group might decide upon a uniform method of presentation which will integrate the various sections. The group members accept a certain measure of discipline, since there is only a limited amount of display space for the whole group. This means also that material must be selected with an eye to clarity, conciseness, and liveliness. The whole group would then at an arranged time bring together the completed work, and set about organising its presentation. Each group would be given the opportunity to visit the displays of the other groups in turn.

A number of very striking points have emerged from this method of working. First, it is remarkable how the students develop as students in the true sense. Instead of being bewildered and apprehensive, waiting to be given information, there is a noticeable increase in their ability and willingness to organise their own study. Above all, they co-operate readily with each other, instead of trying to demonstrate an imagined superiority.

They gain tremendously from the opportunity to handle data in their own way; they can see the different ways in which the same task has been tackled, and the variety which is possible in the presentation of material which is basically the same. When invited to comment upon the results of the assignment, students are usually prepared to be self-critical in judging their efforts, and to praise the good points in the work of other groups, all of which develops a much sounder attitude towards their study of education.

Looking at the exercise from the point of view of the staff, there has been general approval for the method of study. Tutors have been impressed by the keenness and vigour with which students pursue the assignment, and with the way in which they become involved with the facts which they discover. Many students show great initiative and ingenuity in the acquisition and selection of items for display, ranging from brief extracts from well-known texts to illustrations of schools and classes. Others are not content to use books as their only sources, but arrange to visit old schools in the locality or education offices or local history archives in libraries or museums. A good deal of exciting first-hand material is included in some of the dis-

plays; for example, 19th century log-books come to light and yield a fascinating treasure hoard of information. On one occasion an enterprising student acquired in some mysterious manner the architect's drawings for a church school and teacher's house to be built in 1846; another procured a scale model of a modern school.

Another important feature of true group working is that members are able to contribute their individual talents to the common task; some put their artistic ability to good use in illustrative items or in lettering, while others produce graphs or diagrams based upon a good deal of statistical work. It is not only tutors but students themselves who are often surprised at the high standard of presentation which can be reached. Moreover, there is a great measure of agreement that work units of this type provide an extremely effective medium for learning. Students often express the view that they have benefited more than from the more usual pattern, and although they see many beneficial consequences accruing from group study, they are aware of potential weaknesses. A similar approach has been used for other sections of the course, such as the physical and intellectual development of children, and some sociological aspects of education, for example, the effect of class upon educational attainment.

A word or two of caution would probably be in order at this point:

- 1. Students unused to this type of group study have to be introduced to it gradually, and the necessity for a sense of balance must be realised in setting the assignment. I have noted earlier the feeling of helplessness which often arises in the early stages. This is to be expected if insufficient guidance is given, leaving students too much to their own devices. On the other hand, if the assignment is too definitely structured with precise instructions for every step, leaving little or no scope for group initiative, most of the benefit will be lost.
- 2. The method will not suit every tutor. Many find difficulty in adopting a less formal role, and they believe conscientiously that as tutors they have a duty

to impart directly to students from their stock of knowledge. Even when attracted by the educational principles implied in the method, they have doubts at first as to its efficacy.

3. The role of the tutor is also different in that he must work as a member of the group, one whose special knowledge is at the disposal of the group, and should contribute towards its learning, but ought not to be imposed upon the other members. He must often exercise restraint, and be prepared to allow members to try out ideas which have been agreed mutually. Restraint is called for also during the follow-up discussion, which is an essential element in the method, for it is here that students can learn to take a critical attitude towards their work, and thereby become less dependent upon the tutor. At the same time the tutor has an obligation to ensure that serious omissions or weak points are not overlooked. In this free discussion, students extend a co-operative and friendly spirit which brings out their best qualities.

It was not until some time after this type of group study had been in operation that I came across the following quotation, which sums up very well indeed what we found in our experience: '... the most effective and most satisfying group in which to work is a group of friends. In more general terms, the existence of positive emotional ties between group members is a sine qua non, not only a feeling of unity but of each member playing a part in co-operative activity. When such ties exist, teaching should make wise use of them. When they do not, the use of group methods . . . may help considerably to bring them into being.' (Professor Ben Morris in How and Why We Learn). Students discover that they have responded willingly to the opportunity to undertake a major share of the responsibility for their own learning, and that the feeling of active involvement leads to a greater sense of achievement than is possible when one has been totally directed. Above all, they gain most from the knowledge that others are working with them and not against them. This experience must surely go some way towards encouraging in students a willingness to utilise group methods where possible in their future teaching.

Introducing Nuffield Science into Comprehensive Schools

Brian Mowl

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Comprehensive schools are usually large. The introduction of Nuffield Science teaching materials and methods into such a context has created certain problems. Some of these are well known since they apply generally and have been fully discussed. Amongst them are high costs, lack of laboratory space and provision, poor storage facilities, inadequate technical assistance and allocation of subject time. Undoubtedly these factors have influenced teachers' attitudes towards the introduction of Nuffield, or even 'Nuffield-type' science courses into schools. However there are other, perhaps less obvious, factors at work influencing the attitudes of teachers in comprehensive schools.

Most heads of science departments in large schools are only too aware of the very large turnover of staff mainly, but not entirely, at junior level. Frequently there is also a continual stream of student-teachers of all types through the school. Teachers from both these groups have very different backgrounds, some being Nuffield orientated, others having hardly heard of the courses. Whereas the former can usually quickly fit into the general ethos of a school involved in Nuffield work, the latter present considerable problems for the time-starved head of department. Sadly, there is too, that category of experienced teacher who seems unprepared to make any necessary effort to change their methods, or to attempt to keep up with the general current of curriculum reform. The head of department is thus faced with a threefold task. Firstly he must make provision for continuity if his pupils are not to become the 'losers'. Secondly he must spend considerable time and effort on a form of intra-school inservice training. Thirdly he must ensure that a genuine spirit of enquiry enters the work at the teaching level in, as far as possible, a practical fashion. He must tackle these tasks in a way which is most economical of his own time and yet is as effective as possible. There are a number of strategies.

1 Provision of detailed teaching schemes, indicating the approach to be taken, the material to be covered, references to texts where appropriate, and time allowed for a topic. This approach has been

- criticised as inhibiting freedom of expression on the part of the individual teacher. Nevertheless it has proved to be the most effective stratagem in meeting the difficulties outlined above. Student-teachers particularly welcome such detailed guidance.
- 2 In conjunction with these teaching schemes, regular departmental discussions on a semi-formal basis are needed to clarify approaches and practical problems involved in the work.
- 3 Observing lessons. The time when teachers regarded it as unprofessional to 'interfere' in another's lessons has passed. It is not a question of 'interfering', but of advising and guiding. Done in the right spirit this is welcomed. To talk in terms of inexperienced teachers learning to swim (or sink) the hard way is nonsense, and may be an important factor influencing wastage.
- 4 Taking the opportunity of participating in in-service courses offered by various organisations and institutions.

A more intangible problem is that centred on the Nuffield Science Teaching Schemes. How have these affected the organisation, and particularly the flexibility, of science courses within a comprehensive school? It would seem that Nuffield courses are polarising into a number of pathways. In years 1 and 2 separate O-level subjects or Combined Science are available as alternatives. It is conceivable that the latter will prove sufficiently flexible for the entire ability range and will provide a sound basic course for the comprehensive school. However at the beginning of the third year a choice must be made. Pupils enter either the Secondary Science course, now being developed for the average and less able pupil and leading to CSE, or the courses in the separate disciplines leading to GCE.

It is quite clear from this that in many schools the Nuffield Teaching Projects are in danger of crystallising, and indeed advocating, a multilateral system inherently inflexible because of the nature of the materials and basic philosophies of the different schemes. It would thus inhibit pupil transfer between streams, either up or down, and furthermore it seems

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to necessitate an irreversible selective process at the end of the second year—surely a highly undesirable step. Inevitably it would hinder the development of mixed ability teaching.

What are the ways round this dilemma? The following are possible solutions:

- 1 To ignore the developments of an integrated Secondary Science but concentrate on producing Mode III CSE schemes for the separate disciplines which are based on the 'O' level material.
- 2 To select certain material from Secondary Science, attempting to match it with year 3 of the 'O' level work and thus produce a common course for all abilities. This would delay 'selection' for GCE or CSE until the end of the third year. However it may prove difficult for separate subjects and is certainly undesirable in that it takes Secondary Science material from its context.
- To critically re-examine the whole field of curriculum reform in science education, and, using the best of all Nuffield materials and ideas, produce a course which is a new synthesis. This must (a) be flexible to cater as far as possible for the entire ability range and (b) must avoid imposing, in the present educational climate, any suggestion that there should be a dichotomy of pupils. Such courses could be conceived on a basis of integrated science, on separate subjects, or even both. This latter concept would recognise that whilst many topics can be dealt with in an integrated manner under the global umbrella of 'science', there are other topics (e.g. behaviour) which are peculiar to an individual discipline. These could be treated on a 'unit' basis at an appropriate intellectual level in the fifth year and may even give an additional degree of flexibility. Team-teaching and group methods might also play a significant part in the interdisciplinary aspects of such a course.

An approach mentioned in (3) is not easy to devise but should be possible. It must have a common core for all abilities, but nevertheless must be rigorous, testing, and open-ended enough for the able pupils. Simultaneously it must provide for the weaker pupils and not give rise to a sense of frustration and lack of achievement. Those levels of scientific significance (reality, pattern. understanding) referred to in working Paper No. 1 (Schools Council) apply not only to the less able, but to all, pupils. To remove any necessity for selecting candidates for the CSE or GCE until the last possible moment a successfully devised course must be the first step in such an educational and social reform.

Reviews



Experimental Schools

The Integrated Day in the Primary School, by Mary Brown and Norman Precious. Ward Lock Educational (1968), 30s.

Written by the Head Teachers of adjoining Infant and Junior Schools, the general approach of The Integrated Day is enthusiastic if uncritical. For the authors, the phrase 'integrated day' means simply 'a school day which is combined into a whole and has the minimum of timetabling' (p 12). 'The natural flow of activity, imagination, language, thought and learning which is in itself a continuous process is not interrupted by artificial breaks such as the conventional playtime or subject barriers' (p 13). (Nevertheless, at 11.15 daily, there is a school assembly!)

The introduction briefly points out that there are other interpretations of 'integrated' but does not discuss these. Certainly, writers such as Lawton would not include haphazard temporal contiguity in their concept of integration. Instead, such writers want to stress the common skills and conceptual structures contained in various subject areas. It is these common elements which justify the removal of timetabled subject barriers, as well as, but not merely because of, the added relevance the content gains for the child.

Further criticism of this bland acceptance of the child's activities being the integrative factor would be levelled by proponents of 'subject discipline'. For example, Hirst has argued that 'at rock bottom education is dependent on the acquisition of a number of autonomous forms of knowledge'. While recognising that the various conceptual schemes are inter-related, and that these relationships should be taken into account, he is convinced that, even in the topic approach, the contribution made by each subject must rigorously follow the distinct conceptual scheme basic to that subject. It seems odd that Brown and Precious chose to ignore the current research and discussion on these problems.

The second major explicit assumption of the book, following the Isaacs tradition, is that the child has no 'needs' other than those 'shown through his choice of activity' (p 123). But distinctions between the child's own interests, interests which are originated by external agencies such as television or books, and interests which are fostered by the teachers through the planning of the school environment, are not made. While reading the first part of the book, one wonders how children can ever form patterns of concepts, or learn the more difficult skills.

In this part of the book, the ideal school environment, together with ideal teachers, and ideal children, are covered. While there are some interesting ideas hidden away, it might have been more useful if we had been told how these heads coped with their particular problems of apparatus and building deficiencies, of teacher shortage and teacher training, of disturbed children and suspicious parents. For example, one would like to know the social background of the neighbourhood, the teacher turn-over rate as compared with that in other Leicestershire schools and in the country as a whole, and the extent of parent participation. Were the

personal relationships involved so dependent on special personality characteristics that ordinary teachers in ordinary schools would not be able to cope with this form of organisation?

However, in the next section of the book, the answers to many of our questions are at least hinted at. The way the transition from infant to junior school is arranged, is explained in detail. In the five case studies we catch glimpses of the varied social backgrounds of the children, and the practical difference these make to the teacher's treatment of the children. In the records there is shown a sensitive awareness of the child as an individual. His 'needs' are in fact interpreted more broadly than the authors would have us believe. Stages of concept formation are noted and equipment prepared to catch the interest of the child so that the next stage can be approached. Similarly, the child is not left until he 'chooses' in a vacuum, to pursue skills such as writing, reading, or mastery of a musical instrument. With displays and equipment designed to produce orienting responses, and gentle persuasion (yet persuasion nevertheless), the teacher does decide what it is that the child probably 'needs' to do next and guides in the light of her decision.

Many of the objectives of approaches such as 'the integrated day', even when made explicit, are, as yet, unmeasurable. Does the security and happiness which, it is claimed, the child gains from a relative freedom of choice, and participation in informal social relationships with children and adults, lead to 'better' attitudes, learning and personal relationships? Does he build a meaningful conception of inter-relationships, or merely a mass of unrelated fragments, linked by neither an organic structure of subjects, nor an enforced formal social structure? These are questions which this book does not attempt to answer.

What Brown and Precious do. is show us convincingly, on a descriptive and intuitive level, that forms of organisation, other than the traditional, can work. While their form may not be the best, it is clearly good, and much better than many others. Enthusiasm, idealism, willingness to acknowledge mistakes and consistent caring about all the children and their learning environment, are evident throughout the book, especially from chapter 5 onwards, and with the illustrations, make it worth reading for anyone attempting to catch the atmosphere of such experimental schools. IRENE FARMER, University of Lancaster.

Note: The views of Lawton and Hirst can be found in Schools Council Working Papers 22 and 12 respectively.

New Thinking

Young Lives at Stake, by Charity James. Collins (1968), 256 pp, 42s.

The curriculum reform movement in this country displays our characteristic fondness for piecemeal social engineering. 'Movement' is too ambitious a description. A ruffling of the surface has been sufficient to conceal from us the stubborn persistence of discredited forms. The major curriculum projects of the present decade have helped us to rewrite our syllabuses and revise our teaching strategies. But few of them have questioned the conventional division of subject matter in secondary schools: none has challenged the practice of streaming; many, for all their emphasis on 'the active part that the pupil should play in the learning

process', are still conceived within the limitations of a traditional classroom organisation. They depend, as Charity James puts it, on 'the false assumption that there is an optimum route for progressing through a fixed area of knowledge, which is suitable for all members of given squads of children provided their IQ or previous progress on this route suggests that they can be taught together'.

Ever since its first pilot course report in 1965, Goldsmith's College Curriculum Laboratory has been arguing with passion and conviction that a wholehearted reform of the curriculum is inconceivable as long as such fundamental aspects of school organisation are ignored. But in this book, Mrs James makes clear that her objection to the curriculum reform movement goes further than a criticism of tacit assumptions about streaming or the division of subjects. It is the underlying strategy which she calls into question.

New curricula are the product of a collaboration between teachers, academics, psychologists. They are tested on small groups of children, revised, published. What emerges is a more or less exciting collection of subject matter, methods, materials which is then imposed upon children. Exciting for whom? More perhaps for the teachers than the children. For, as Mrs James puts it, 'the teachers have been exploratory and creative, not the students'. The presumption is that curricula reflect a teacher's judgment of what he wants children to become. not a child's perception of what he might want to be. The strategy is misconceived in so far as it predetermines what children shall do.

It is the purpose of this book to develop an alternative strategy, one which depends upon 'a very subtle accommodation between the child's introspective knowledge of himself and of what he cares to know and the teacher's equally subjective though less direct perception of what the child is like and what he might care to know.

Learning is seen as a collaborative enterprise between teachers and children, collaborative in means and in ends. Children require the freedom to help determine both their own means to common ends and equally their own ends. Curricula cannot be first devised and then taught; they are devised as they are taught. It is as if the process of learning were the construction, testing, revision and application of one's own curriculum.

Charity James is careful to safeguard her position against the familiar criticism of a child-centred education – that it allots the teacher a purely passive role. This is a false, if tempting, interpretation. Teachers may initiate, intervene, criticise, assess, instruct – may teach, in short, without in any way infringing the principles on which a child-centred education rests. A teacher is a collaborator, not a detached observer, working alongside his pupils rather than merely letting them get on with it.

It is within this framework that the Curriculum Laboratory's celebrated concept of interdisciplinary enquiry (IDE) has to be set. The framework is not necessarily anti-curriculum but it severely circumscribes the limits of any curriculum. Curricula are necessarily provisional, a teacher's reflections upon the likely pattern of activities within a particular school context, subject to continual adaptation, and occasional abandonment as the particular circumstances suggest. They are guide lines which a teacher and his students must as often as not ignore.

Interdisciplinary enquiry suggests one direction which a school's free-ranging activities are likely to take. Contrary to a fairly widespread impression, IDE was never intended to be a substitute for conventional school subjects, nor opposed to subject disciplines as such. It describes an aspect of the curriculum concerned with the exploration of fundamental

areas of human concern which cut across subject disciplines but, equally, require for their interpretation techniques and concepts developed within particular disciplines. How much time to spend on IDE is a question Charity James deliberately leaves open. To do otherwise would contradict her own strategy. But IDE is only one part of Goldsmith's fourfold curriculum. Its three other aspects are autonomous studies (the conventional disciplines), remedial education (any part of education concerned with resolving the individual child's learning difficulties) and special-interest studies. The four aspects are interdependent but the quality and extent of their dependence on each other will vary from age to age and from school to school.

In itself the fourfold curriculum implies no more than a modest reform. Many comprehensive schools will recognise it as a more or less schematic representation of their own activities. The radicalism of the Curriculum Laboratory is not to be found in specific curricular proposals, not even in IDE itself, but in the context of collaborative learning out of which the curriculum grows.

In this book, Mrs James has begun to justify that context. Her argument is subtle and persuasive. But the book is no more than introductory, an extended essay rather than a definitive study. Perhaps the author would say that no more can be expected at the moment. Yet it is this next stage, infinitely more perplexing, which will be critical to the success of her argument. Since it is an argument which may become much more familiar in comprehensive schools. now that the first decade of reorganisation is drawing to an end, it is worth indicating the lines which more detailed study might take.

First, it will be necessary to meet the powerful theoretical objections which have recently been directed against child-centredness, especially in the work of Bernstein and his colleagues, as recently described by Douglas Holly in Forum. Secondly, and as one way, too, of meeting the theoretical objections, it is necessary to develop a much more powerful descriptive analysis of the process of collaborative learning as it is to be found in particular schools. We are only just beginning to grasp the techniques of observing, describing and analysing what actually happens in the classroom. Without such analysis, educational theory can never be more than half baked - an inadequate reflection, or illumination, of educational practice.

MICHAEL ARMSTRONG,
Nuffield Resources for Learning Unit.

Siren Voice

The New Polytechnics - the People's Universities, by Eric Robinson. Penguin Education Special (1968), 6s.

Eric Robinson's is a siren voice directed at those of us who consider ourselves educational progressives. Certainly his song is sweet to radical ears at times: 'Sooner or later this country must face a comprehensive reform of education beyond school a reform which will bring higher education out of the ivory towers and make it available to all' (quoted prominently on the back cover). Briefly his thesis is this: the social structure of university education is such that it is quite inappropriate to form the basis of the comprehensive higher education of the future, therefore the twenty-seven new polytechnics proposed by the government should be seen as the nucleus of the 'people's universities' to come. The book in fact is an

apologia for Crosland's 'binary' system which is held up as radical while the devotees (including the left) of a unitary system are dismissed as 'committed to a class structure in education'.

The élitist pretensions of the universities - or more properly the university 'establishments' - are mercilessly pilloried. Robinson wants universities to be separated from the rest of tertiary education because he regards them as a lost cause, likening them to the grammar schools in the secondary stage. 'The academic world,' he says, 'believes in the concept of innate ability . . . This belief in the objective existence of an academic élite is fundamental to the approach of many academics to the problems of higher education.' Worse - the high status of these élitist 'boarding schools of higher education' has succeeded in perverting education lower down from its true course - the education of the many is sacrificed to the vocational preparation of the few.

And it is just at this point that nagging doubts about the logic rise to the surface. For is Robinson commending 'education' as something distinct from vocational training? Certainly he denounces the present university courses on these grounds. But what of the technical colleges which he, like Crosland, see as the great white hope of tomorrow? Are these dedicated to human development? Robinson himself devotes the greater part of a chapter to demonstrating just how un-humanist technical 'education' in fact is. Behind the siren notes one sometimes catches a different sound -'vocational education to which many students would respond better'. 'marketable competence', 'the real world of muck and brass', social sciences to be taught as 'justifying themselves by the accuracy of their predictions and the efficacy of their recipes not as alternative philosophies or religions for young people seeking an academic escape from reality' and

- in more romantic vein - 'effective factory work often requires imaginative speculation and fine human sensitivity'.

And here we begin to see the rationale for choosing the technical colleges and rejecting the universities. The universities it seems are just not sensitive enough to the needs of capitalism – state or private. The employers have already gained considerable influence on the 'techs'; Eric Robinson would see this as part of the eventual foundation of further education, for they along with those longstanding friends of progress, the craft unions, know best what's good for us all. We are, it seems, to exchange one bondage for another.

Fortunately there is 'an alternative philosophy' to either prescription. Beware the voice of sirens!

DOUGLAS HOLLY,

University of Leicester.

Appeal for Help

May I, as a research worker, make an appeal through your columns, for original sources of information about Rachel and Margaret McMillan? These pioneers of nursery education

went to school in Inverness, did social work in Bradford from 1893 to 1902 and afterwards started a nursery school and College in Deptford.

Any kind of information about the sisters would be welcomed, especially private letters, newspaper articles and photographs, they would be carefully handled and quickly returned. Please send to Dr E Bradburn, School of Education, University of Liverpool. E BRADBURN



Children Under Stress

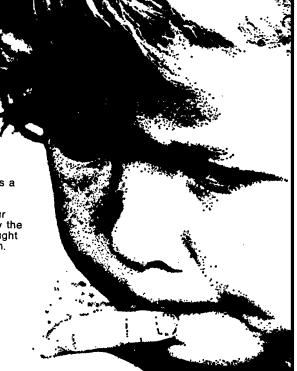
This important book is concerned with the reactions of children to adverse life experiences, and the widening understanding of the effects of deprivation and stress. The author, a consultant psychiatrist, examines such situations as illness, bereavement, illegitimacy, family neurosis, and cultural deprivation: and discusses, particularly, preventative psychological treatment methods. 428

Revolution in Learning Maya Pines

A vital book for anybody concerned with education, this is a vigorous and passionate account of nursery schooling in America. The principle that an individual's achievement depends largely on what is learned before the age of four forms the basis for the experiments described in detail by the author. Miss Pines believes that the strong evidence brought to light by researchers in this field now demands attention. 'We can probably make the next generation far more intelligent than any that came before it.'
With an introduction by Willem van de Eyken. 35s

Allen Lane The Penguin Press





Curriculum change

Curriculum Innovation in Practice: a Report by J Stuart Maclure of the Third International Curriculum Conference. Schools Council, HMSO (1968), 93 pp, 5s.

Changing the Curriculum, edited by J. F. Kerr. Unibooks, University of London Press (1968), 112 pp, 13s 6d.

There is a sense in which J Stuart Maclure's account of the non-communication evident at the 1967 International Curriculum Conference might be taken to invalidate Professor Kerr's purpose in assembling a collection of papers by professors of education on the specialised contributions of philosophy, history, psychology and sociology to the matter of curriculum reform. On the other hand, it could be argued that the English curriculum developers' impatience with theory and aggressively pragmatic approach, repeatedly revealed at the conference, underlines the urgent need for such a book. The crucial question is whether this symposium can achieve what the conference patently failed to do: namely, contribute towards breaking down English teachers' 'deeply-held suspicion of educational theory'.

The conference tended to polarise the differences between English and American approaches to curriculum reform and thus demonstrated the deficiencies of both. The American dominance of the theoretical expert with a propensity for academic abstractions, searching for 'teacher-proof' materials, must be equally suspect as the English 'insistence on placing the practising teacher at the centre of the process of curriculum renewal' as by sacrosanct right.

Undoubtedly many of those who are directly involved in curriculum reform in this country could glean some ideas from reading these reports of American and Canadian experiences. If curriculum reform is to be effective we must heed Mr Maclure's comments. 'Many of the changes which are in the wind are outside the scope of the individual teacher of the individual school . . . Most of them somewhere along the line require collective decisions which depend on achieving a common purpose among groups of teachers.'

This leads us to one of the purposes of Professor Kerr's book: to 'help curriculum workers to specify curriculum objectives and plan learning experiences by selecting from and making better use of the specialist knowledge of philosophers, psychologists, sociologists and others.' His own paper reveals his conviction that it is essential 'to involve teachers in their own curriculum problems and development' at a practical level and to improve their theoretical understanding of the processes. In view of the attitudes revealed at the conference, however, it seems that this is more likely to be achieved in the long run through a reorientation of initial training whereby 'the curriculum is the natural core . . . so that it becomes the reason for the inclusion of selected topics from the separate disciplines and the integrating force for all the elements of the course.' But Professor Kerr wants this to be achieved through in-service training too.

Teachers' centres of the type he describes are a more likely vehicle than the LEA dominated type recommended by the Schools Council (Working Paper No 10). Citing the Leicester School of Education as his example, he advocates the formation of study groups of teachers interested in particular curriculum problems, with specialist guidance according to need. This is a strategy for

collaboration. A further suggestion – a pilot course was run after his paper was written – is for a School of Education to undertake the training of leaders for curriculum groups.

Professors Philip Taylor and Frank Musgrove first warn of the limitations to the respective contributions of psychology and sociology to curriculum development before spelling out ways in which their disciplines may be of practical use. Teachers are likely to see common sense in their arguments and be the more willing to accept that these two disciplines can help them in making decisions. Professor Charlton, in considering the contribution of history, makes less direct claims; but none can dispute that 'history can remind us that change is humanly possible, given the will and the opportunity for change' or that those who plan change cannot afford to ignore 'past attitudes and past value judgments'.

Professor Hirst, after stating his concern to clarify concepts and propositions, embarks on a philosophical essay on the nature of objectives, teaching and learning in the context of a planned curriculum. He makes large claims for the contribution of philosophy, but presents these in a manner unlikely to forestall that impatience with theoretical abstractions noted at the conference. This is unfortunate because some of the questions he poses must be faced by practising teachers if there is to be effective and rational curriculum reform in this country.

The barriers to communication between theorists and classroom practitioners must be surmounted so that collaboration can take place. Maybe if the theorists read Mr Maclure's report and teachers read Professor Kerr's symposium, they will begin to understand one another better.

NANETTE WHITBREAD, City of Leicester College of Education.

A remarkable document

Sixth form examining methods. Working Paper No 20. Schools Council.

Galvanised into action by Working Paper No 5, Sixth form curriculum and examinations, the Welsh Committee of the Schools Council produced a number of papers dealing with 'the problems posed by a pattern of major and minor courses in schools with small sixth forms'. One submission, prepared by HMI Mr B E Thomas, constitutes the first part of Working Paper No 20. The second part of this Working Paper is an account of the reactions of some of the Schools Council's subject committees to Mr Thomas's comments and proposals. The third part, of this quite remarkable document, consists of comments by the secretaries of two GCE boards.

The style of Mr Thomas's paper is nearer to Celtic tub-thumping than dispassionate discourse. His attack on a 'syllabus sampling approach' to examination construction is supported by a catalogue of the known, or hypothesised 'backwash' effects which such examinations generate. The opinions of Piaget, Wiseman, Bantock, Zantz and Leavis are quoted, adding weight and momentum to a verbal avalanche of criticism. The problems touched on by Mr Thomas are too profoundly important to be dealt with by this technique. It is perhaps unfair to compare Mr Thomas's criticisms to the mindless accretion of an avalanche taking the undirected path of least resistance, but it is reasonable to demand in a Working Paper that problems are defined with precision and supported by evidence for their existence. It is unfortunate that the many important problems to which reference is made are lacking in these respects. The inert forces which

maintain the *status quo* are massive. They will yield only to reason.

Mr Thomas proposes that examinations based on aims should augment the conventional technique of sampling from syllabus content. Unfortunately, justification is sought almost entirely in terms of hypothesised backwash effects. The now considerable literature on describing teaching and assessing objectives in behavioural terms is not quoted. Had this literature been consulted, the implied objectives of 'critical awareness' and 'understanding' would have been subjected to further analysis. Other major reforms which it is suggested might be investigated are teacher assessment, oral examinations, and the use of power-tests (rather than speed-tests).

The second part of Working Paper No 20 gives some indication of entrenchment in high places. The major support for Mr Thomas's document, its criticism and its proposals, seems to have come from the Committees for Craft, Applied Science and Technology, Home Economics, Music and Religious Education, all of whom would at least support research into problems raised and solutions suggested. The status quo received support from the historians and mathematicians. The Mathematics Committee are reported to hold the view that 'the effect of examinations on learning (are) much exaggerated in the paper', but admits that perhaps in mathematics 'the tensions between teaching and examining are not so acute as in other subjects'. The same committee holds the opinion that 'the experiments suggested by the paper (eg. examination based on aims and teacher assessments) would lead to increased validity in the examination results but to a loss of reliability and a complete loss of comparability'.

Such a collision of views is more likely to generate heat than light. What are the effects of examinations

on mathematics teaching, syllabus and methods? Do the conventions of established practice retard the development of methods which potentially lead to more effective teaching? Does teacher-assessment inevitably lead to increased validity, loss of reliability and conformity? What is the present level of predictive validity of, say, 'A' level Pure Mathematics examinations? Can mathematicians define and exemplify mathematical abilities? Are there behavioural outcomes of a course in 'O' level mathematics which are not demanded in present examination questions?

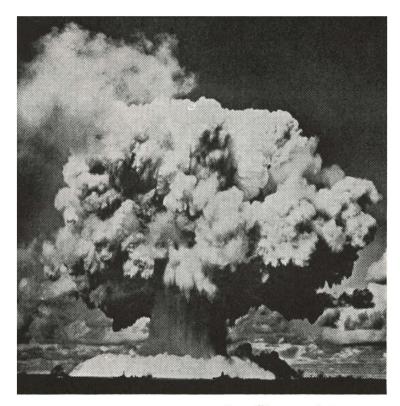
These and other questions need to be defined, ordered into a scheme of priorities and methods sought for their solution.

Somebody once defined a camel as a horse designed by a committee.

Working Paper 20 is a bit of a camel.

J F EGGLESTON,
University of Leicester School of
Education.





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