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Notes by the Way

EDWARD BLISHEN

These Notes are to be a new feature of FORUM. They will appear regularly and will be contributed by different members of the Editorial Board.

We were discussing the new Schools Council for the Curriculum and Examinations that's to be set up, and the discussion had run along the usual lines. Yes, we had to watch that this didn't lead to an increase of central power at the expense of local and professional freedom: it probably wasn't intended that way, but you couldn't be too vigilant. It was certainly time, everyone agreed, that we looked afresh at the whole sprawling system, and especially at the question of *what* is taught. Then we certainly ought to find out with some precision what had happened to the content and spirit of education as a result of the stampede of examinations, which have been trampling over the scene more and more heavily and in greater quantity for years now, without anyone being able to measure, in the heat and dust, the exact cost. Oh, said everyone at this point in the discussion: you've got to watch, though, that the new Council doesn't become an assembly of the old names and faces, the inevitable committeemen. The practising teachers must be present, in force, and they must be ready to have their say, firmly and clearly. They're the people who know what harm is done by a runaway system of examinations, and the educational frustrations and futilities it all gives rise to.

Yes, yes, says the tetchy little voice in my mind at this point. But is there any enterprise of the vast importance of education that is so little inquired into, in a methodical way? Maybe this new Council will be helpful: but won't that depend, not on an exchange of opinions and experiences among its members, but on the actual hard research that it sets going? We need, surely, a wide range of very precise inquiries, which will give us knowledge as exact as it can be about the effects of what we do, good and bad, in an enterprise that's fundamental to the efficiency and happiness of the community. Which means, one would think, spending rather more on research than the 0.008% of the total expenditure on education that was devoted to it in 1959.

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The tetchy voice was in my ear again recently when I sat on a lawn with a friend who'd been

trying to persuade his daughter, an intelligent fourteen-year-old, to read a very lively recently-published piece of historical writing. She'd said that this was her summer holiday, and would be for seven weeks yet, and she meant to get away from history and to stay away from it until the new term began. I think there was here a small element of healthy adolescent resistance to father's intellectual do-gooding: but I saw the force of his exclamation, 'What's wrong with our schools? What are you teachers up to? Why is there this awful division of life into long slogs and long idlings? She *enjoys* history. Why does her experience of schooling somehow make her want in her leisure to do *nothing* that has the faintest connection with her work at school?'

Tetchy voice said there was something to answer here. Do we somehow convince a great many young people that life falls into a brutal pattern of work and play? Is this one of the effects of examination pressure, which associates work with a sense of inquisitorial strain from which it's natural to escape at every opportunity? Is it an effect also of the situation our attention was drawn to recently by the White Paper on staggering holidays? Do we, in fact, break up the school years too clumsily into over-long stints of work intermitted with over-long holidays?

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It was the end of the run for these primary school leavers, and there they stood, blushing and excited and sad, taking their bows on the gallant little bit of stage that had been created with curtains at the end of the all-purpose hall. (School intended for 60: population, 120.) The farewell concert had gone on and on—poems and plays and songs and speeches . . . And I was a primary school parent no longer. I felt sad, too—especially because I was struck once more by the sheer democracy that's achieved by the good primary school. Here they were, thirsty children of different natures and abilities. What common grounds of taste and appetite they had at this moment! How easy their association was! And, within a few years, what wedges would have been driven between them . . . what sheer silences!

'I think we shall miss one another,' said the headmaster: a little girl grinned and hurriedly dabbed at her eye with the back of her hand. The headmaster thereupon made a huge joke—perhaps he, too, had to find some reason for smiling, so that he shouldn't just then think too much of the way that at secondary school level we break and *scatter* the community.

The Role of the Headteacher in English Education

E. STONES

Mr. Stones has taught in junior, secondary modern, and comprehensive schools, and also in a technical college. He is now senior lecturer in education at Kesteven Training College.

'When we appoint a headmaster we appoint the captain of a ship': thus (according to Martin Mayer) Alec Hay, Chief Inspector of London schools. Indeed, apart from the captain's power to conduct marriage ceremonies, the parallel is well made. In theory, as far as it is made explicit, and often in practice, this is the situation in many English schools, and any attempt to go against the *dictat* of the head is regarded as tantamount to mutiny. Were all headteachers paragons of educational virtue and enlightenment this would be no cause for concern, but in real life many of our schools have pedagogical Queegs at the helm. Unfortunately, whereas Queeg affected the lives of but a few adults, his opposite number in school could materially affect the lives of thousands of children. It is the submission of this article that anyone concerned with new trends in education cannot ignore this problem.

Historically the role of the headteacher has two main antecedents. On the one hand there is the tradition of the schools which catered for the upper classes, mainly the public schools, on the other hand there is the tradition of education for the masses. In many respects their development followed similar lines, both leading to the concentration of power in the hands of the headmaster.

The Private Sector

In the private sector the mystique of the 'Great Headmaster' is one of the most powerful influences making for despotism. Thomas Arnold, seeing his school as a Christian community, whose main aim was to shape character, and with a deep sense of pastoral mission, hand-picked his assistant masters so that they were satellites owing their motion and light primarily to the central luminary whose beneficent influence nourished all. This image of headmasters as quasi-supermen ('like angels . . . Beacons of hope', were terms used by Matthew Arnold in 'Rugby Chapel') was no doubt buttressed by Victorian paternalism and by the conception of the head as employer who hired and fired and determined the salary of his staff. Even when heads were under the control of a strong board of

governors there was rarely any attempt to influence the internal organisation of the school. Thring considered that masters' salaries should be related to their efficiency and in most schools the stipend was determined by the headmaster.

In some cases a powerful oligarchy of housemasters or heads of departments ran the schools (particularly in Scotland) but in the main the trend has been towards autocracy.¹ In the public schools, staffs have rarely resisted this tendency. In the conforming, ingrowing, patriarchal community a rigid framework of discipline is to be welcomed rather than resisted. The autocrat is an essential part of such a framework. As one head is reported to have said about his staff and boys: 'They are *all* my children.'²

The Public Sector

In the public sector for much of the nineteenth century the term 'master' connoted 'headmaster'. That is, there would be only one teacher in the school. He would possibly be a trained teacher himself but he would have as assistants monitors (drawn from the ranks of his children) and pupil teachers learning the trade. He would, in fact, be the sole unchallenged authority within the school, appointing his pupil teachers and monitors without reference to his managers. Since there were few assistant teachers in the schools and since there was no attempt to give anything but elementary instruction, the running of the school was essentially a one-man affair.

Thus in both public and private sectors of education tradition led to the conception of head as autocrat. This conception found its expression in the 1905-6 Regulations for Secondary Schools: ' . . . experience proves that in a school of the secondary type full efficiency can be secured and the best teaching and organisational power attracted only where the Head Master or Head Mistress is entrusted with a large amount of responsibility for the control over teaching, organisation, and discipline. In particular the appointment and dismissal of Assistant Staff is a matter in which a voice ought to be secured to the Head Master. In the

majority of Secondary schools of the highest grade the appointment and dismissal of the staff is entirely in his hands, subject to the obligation to report his action to the Governors and his liability to dismissal for improper exercise of his powers. In other cases he exercises these powers subject to the approval of the Governors.³

The pattern of authority suggested in the memorandum was largely absorbed into the new secondary system along with other ideas such as the house system and prefects—'proved by experience' to be efficacious.

Comparisons

H. C. Dent considers that the English Headteacher '... is accorded more power and more freedom in the use of it than heads of schools in any other country ...'.⁴ This seems to be the case whether the education system be centralised as in France or local as in America.

In France appointments to headships are made by the Ministry and conform to laid down requirements of qualifications and experience.⁵ Within the school the head is more a remote administrator than the popular image of the avuncular English head knowing every child and exercising his pastoral care. He has the power to deploy staff as he thinks fit, although the teachers have the opportunity of discussing this with him. Almost all staffs have a committee which elects a representative to present the opinions of the staff to the head. An unsatisfactory head could be reported by staff or parents to the 'Inspecteur d'Academie' who could appoint a commission to investigate the case. The head has little to do with individual members of staff and his main field of power over them lies in the fact that he has to submit yearly written reports on each of them to the Inspectorate.

In contrast to the English set-up, however, such power as the head may have is circumscribed by the requirements of the state system. Curricula are laid down and the main lines of operation are given; an arrangement not dissimilar to the relationship between minister and local authority in this country where certain minimum standards are laid down for school provision. The French are safeguarding the minimum form and content of schooling, whereas we are content to prescribe the minimum basic form and leave the content to the headteachers.

In America local surveillance by school boards elected *ad hoc* achieves probably as close a control of the schools as in France without the centralised standards. State school boards prescribe minimum standards in school buildings, curricula, teachers'

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qualifications and text books. District boards appoint staff and exercise their own control over curricula. Between the Board and the school is the Superintendent of Schools, who is the Board's executive officer. The Director of a school is the equivalent of our headmaster, but the real power lies in the hands of the superintendent, although he is not altogether a free agent. As W. K. Richmond observes: '... because the work of the school impinges on so many aspects of community life, every move he makes—outside the limited sphere of his special competence, that is,—is subject to the controls of social approval and disapproval. If it is proposed to introduce a new subject in the curriculum or revise an existing syllabus, the decision is his, but not before the proposal has been thrashed out in open session with the teachers.'⁶

Electing the head

The U.S.S.R. has a centralised system with very strong local interest. Here the problem of the structure of power within a school has clearly been exercising educationists. With the accent throughout on forms of democratic organisation among the children, a despotic head would be somewhat of a contradiction. It is not surprising, then, to see a move to introduce a form of increased democracy in the staffing of schools. This is being tried out at the moment in a number of schools in Moscow, Leningrad and other places in Russia.

Candidates may be put forward from among the best teachers possessing higher pedagogical education, not less than three years' teaching experience, and organisational ability, by party, trade union and school Komsomol (teachers) organisations and local education departments. Teachers will vote for the candidates by secret ballot and not less than threequarters of the teaching staff must vote for the ballot to be valid. The successful candidate must receive not less than threequarters of the votes cast and is elected for three years. At the end of three years of office the head must make a report on his tenure to a full meeting of the electors, who will then in a secret vote decide whether to leave him in office or have another election. An election may be demanded before the expiry of the three year period if the teachers at an open meeting of not less than two-thirds of the staff ask for it, or if public organisations or departments of education ask for it, on the grounds that the head is not capable of doing his work or has done something incompatible with his calling.⁷

This is in marked contrast to the situation in this country where heads are normally appointed by governors in conjunction with the professionals in

the education office, and where, once appointed, a head can hardly be removed. Selection techniques for headteachers are no better than most and worse than many, which means that numbers of successful candidates are likely to be unsuitable. Once appointed, sole responsibility for the running of the school is his, and even gross incompetence and educational charlatanism will be unlikely to bring about his removal. He may sometimes be kicked upstairs or passed on to another authority, but only moral turpitude or other comparable lapse will bring about his departure.

The head as despot

The conception of head as despot is fundamentally anti-educational. Whereas *ex-cathedra* teaching is generally accepted as inefficient and undesirable, *ex-cathedra* pronouncements on matters of curricula and school organisation are accepted. Whereas educationists urge an approach to learning which encourages children to be active, to be curious, to be questioning, they often ignore the fact that a teacher himself under autocracy is ill-placed to encourage these qualities in his pupils. If such a situation was in a degree defensible under the rote learning of payment by results, it can have no justification today.

In recent years the proliferation of graded posts has tightened the hold of the head on the staffs. Not only has he the power to appoint staffs (and to affect their careers when they wish to leave, through his position as referee), he now has in his gift extra allowances which in a large school could amount to considerable sums. The sychophant and the conformer are encouraged, the nonconformist is a Bolshie to be discouraged and to be got rid of as soon as is expedient. His relations with outside bodies also strengthens the head's internal position. Often he is the sole representative on the board of governors. Often the co-opted members on committees of the L.E.A. are heads; whilst the N.U.T. locally and nationally is dominated by headteachers. Almost all the tendencies are towards the hegemony of the head.

The headteacher who dictates to his staff will most likely resist any suggestion of a parent teacher association. He may allow mothers to make tea on sports day, but he will fear and avoid interference from parents as a whole. He knows that they will attempt 'to run the school for him'. The idea of a school as being a neighbourhood school (a difficult concept as it is, in selective schools) analogous to the nucleus of a cell in a vital interrelationship with its surrounding tissue, is likely to be completely foreign to him. Such a situation would in-

volve the complete abdication of his position. 'My school', in his phraseology, and 'our school' as a community concern, are mutually exclusive.

In matters of curriculum and school organisation the head is virtually a free agent. He may or may not take the advice of his staff. This contrasts sharply with the practice of other countries, and indeed in many circles this freedom of the headmaster in the school and the teacher in the classroom is regarded as one of our main educational virtues to be treasured and defended from the advances of central authority and misguided laymen. In fact the freedom of the head often involves the unfreedom of the class teacher.

Primus inter pares?

If we are to avoid the undesirable consequences of the autocratic headteacher, we must change the conditions that produce him. Governing bodies might not take kindly to the Russian idea of elected heads, but a period of probation for all head teachers might recommend itself. Closer ties with the community as in the American schools would help guard against the abuse of power, whilst the idea of staff councils as in French schools is one which could, if properly used, radically change the present situation.

Ideally, of course, all these suggestions should be implemented. A form of staff organisation where the head was *primus inter pares* instead of autocrat would remove the possibility of abuse of power. A democratic staff council in a school where the hierarchical pattern was cut to the minimum, where the staff *as a whole* made important decisions whether organisational or educational, could transform many schools. Posts of special responsibility should be removed from the gift of the head and placed in the hands of staff and governors. Staffs should be represented on boards of governors and the running of the school should be regarded as a co-operative enterprise involving the L.E.A., parents, and the whole of the staff. It is not unlikely that with such a set-up the excessive staff turnover, the high incidence of frustration, and the educational malpractices in some schools would be drastically reduced.

It is true that not all schools are autocracies and many heads are leading educational advances in many parts of the country, but the present conception of the head makes inevitably towards despotism and its attendant dangers. Even if our schools were ruled by 10,000 Arnolds (which they patently are not) it would still be imperative to recast the system radically if it is not to hamper seriously the development of education in the future.

Should Head Teachers be Trained ?

WILLIAM TAYLOR

Mr. Taylor, who has recently published a book on the secondary modern school, was until 1959 deputy headmaster of Slade Green secondary school, Kent. From 1959 to 1961 he was senior lecturer in education at St. Luke's College, Exeter, and since 1961 has been head of the Education Department at Bede College.

The idea that there should be special training for head teachers is not new; there have been proposals in the past for Education Staff colleges and other forms of high level training, but these have come to nothing. It seems to me that there are a number of reasons that justify raising the matter again.

Firstly, there has been a considerable growth in recent years in the number of large schools. The number of schools with more than a thousand pupils increased from only two in 1953 to no less than 127 in 1961. Schools with between 600 and 1,000 on roll have grown four-fold since 1953, and over twenty per cent of secondary schools are now of this size. With the larger numbers of children coming forward and the tendency to stay on longer at school this proportion is likely to rise still further. The successful head teacher of a school of this size needs to be something more than a class teacher writ large; he needs skills which are specific to his job as head, and these are not easily acquired from experience as an assistant teacher.

A second consideration is the rapidity of change within the educational system. The job of teaching is becoming more complex and scientific, served by an increasing variety of printed, three-dimensional, audio-visual and mechanical teaching aids. A larger

number of specialist teachers have to be welded together into a team, a greater variety of departmental activity co-ordinated. Not all head teachers are sympathetic to the ideas of their younger colleagues, or tolerant of the fumbling efforts of those fresh from college to establish methods and approaches that differ from the conventional. If experiment is to be encouraged and conflict minimised it is the head above all others who needs to have knowledge of the new techniques that are available, and awareness of the ways in which these can be used.

External pressures

A third point is the extent to which external pressures on the schools are increasing, and making greater demands upon the leadership, organising and public relations skills of the head. The school now acts as the principal avenue of social and occupational mobility—hence the importance that is attached to all the major water-sheds of educational progress, from the decision as to which stream the child joins at the age of seven to the entry to employment or further education eight or ten years later. Employers are demanding higher standards of competence; society requires the schools to exert a stronger influence upon the development of character and social attitudes; parents are waking up to their rights and expressing their expectations. In the past only a small minority of parents had as much education as the teachers and head teachers of maintained schools. With the expansion of higher education and the growth in the importance of qualifications this minority is bound to grow in size and influence. Some evidence for this can already be seen in the growth of the local committees for the advancement of state education, and the support that has been given to the Advisory Centre for Education. In the future the school is likely to come under greater community scrutiny and parental pressure

THE ROLE OF THE HEADTEACHER (continued from page 7)

References

¹H. M. Knox, *Two hundred and fifty years of Scottish Education, 1696-1946*, 1953, p. 40.

²J. Wilson, *Public Schools and Private Practice*, 1962, p. 86.

³Prefatory Memorandum to the 1905-6 Regulations for Secondary Schools, p. xv. Quoted by G. Baron, in 'Some Aspects of the Head Master Tradition,' *Re-*

searches and Studies, University of Leeds, June 1956, p. 13.

⁴H. C. Dent, *The Education System of England and Wales*, 1961, p. 87.

⁵See *L'Encyclopédie pratique de l'éducation en France*, Institut Pédagogique National, Paris, 1960, *passim*.

⁶W. K. Richmond, *Education in U.S.A.*, 1956, p. 85.

⁷*Times Educational Supplement*, 7 December, 1962.

than has been customary in this country; something more than an occasional open day or jumble sale will be needed if misunderstandings are to be avoided, and the paternal attitudes of some head teachers to the activities of parent-teacher associations will need to be modified.

The existing facilities for the training of head teachers and senior staff are very limited. There are a number of Ministry of Education short courses run every year, and many local authorities have regular refresher courses for their staff, varying in length from a day to a week or more. University Institutes of Education organise a variety of part-time and vacation courses and conferences, for which there would appear to be a considerable demand. The University of Bristol's Institute of Education programme for the Spring term 1963 gives details of a three-day course on 'Problems of Authority in Schools' for heads and deputy heads of secondary schools, but this is accompanied by a note to the effect that 'places will be allocated in the first instance to those who applied for admission to a similar course in the Autumn term, and it is unlikely that places will be available for new applicants'. The head teachers' own professional associations organise meetings and conferences, and the College of Preceptors has during recent years arranged a number of well-attended vacation courses on school administration. It is impossible to estimate the numbers who attend all these courses, but it would seem doubtful if more than a minority of head teachers are reached by them.

A father figure ?

In some respects, the English tradition of headship protects the individual head from the need to grasp the nettle of organisation, co-ordination and innovation that flourishes in the large school. The role has its own magic, and the English head is often a father-figure in a way that his continental counterpart would scarcely understand, yet alone be able to emulate. A certain aloofness is readily accepted, sometimes even welcomed, by the teachers. This tradition of charismatic leadership is reflected in some of the head-shaking that accompanies discussion of large schools, where it is alleged the head cannot 'know' all his pupils. The head has also been protected by the fact that teachers have had very little direct contact with one another in the course of their actual work. What has recently been called our 'tradition of splendid pedagogic isolationism' has kept the specifically professional interaction of staff to a minimum. Frequent staff meetings have not been general. Teachers have met informally be-

fore and after school, during breaks and over the dinner table in canteen or staff room. They may have talked a great deal about the children in their classes and wrangled over a whole series of local and national problems. But they have seldom talked about the actual content of their teaching, or the methods that they are using. With the growth of subject departments in the larger schools this isolation behind the classroom door is changing. Content and procedures must be discussed, and this will have the effect of modifying the tradition that, providing discipline is adequate and examination results, if any, satisfactory, what goes on in the classroom is the teacher's own affair. All this involves greater organisational strain than a simple, atomised structure, in which a carefully completed record and forecast book could act as an adequate symbol of effective teaching.

Human relations in school

The average quality of leadership in schools may be no worse than that in industry, commercial undertakings, hospitals and other institutions. Schools are so variegated that generalisations are hazardous. But, where they exist, poor leadership and low morale in the school are as serious and important, if less obviously apparent in their effects, as similar problems in industry and commerce. Productivity figures, profits and the incidence of industrial disputes are more readily available indices of institutional malaise than the discipline problems, delinquency, low standards of attainment and progressive decline in the imaginative and creative capacity of the teachers that characterise the sick school. We have been slow to recognise the significance for educational success or failure of this human relations side of the head's work. In a recent report on some research into causes of professional satisfaction and dissatisfaction among a group of young Manchester trained teachers, Rudd and Wiseman have noted that '... the irritations reported by this group of subjects made clear that feelings of dissatisfaction would not have been banished by increased public expenditure upon salaries, buildings or reducing the size of classes. Apparently, however, much benefit would accrue at little, if any, expense through the improvement of human relations in schools.'¹

¹ Rudd, W. G. A. and Wiseman, S. 'Sources of dissatisfaction among a group of teachers,' *British Journal of Educational Psychology* XXX. 3rd November, 1962, p. 291.

With schools becoming larger and society changing, the older charismatic type of head teacher figure is bound to be somewhat modified; the head of department, second master or mistress or deputy head will require many of the skills that were formerly the prerogative of the head. In the long term, there is a need to consider the possibility of full-time or part-time courses for senior staff, successful attendance at which might be regarded as an essential qualification for headship. Not all those attending such courses would necessarily become head teachers. Senior staff could be trained to perform their own tasks more efficiently and at the same time given the essential background for understanding and assisting the work of the head. But such courses can probably only be provided as part of a programme of long-term educational planning. Something could be done at the present time by way of providing more short courses during vacations and at other times for existing heads and senior teachers. In a month's vacation course, or on half a day each week for a year a great deal of value can be accomplished. A systematic approach to the training of head teachers would need to include not only school administration, but also such problem areas as group relations in the school, recent advances in educational practice, curriculum and time-table organisation and the place of the school in the community. Lectures, however valuable their content, would not be enough. There would need to be an extensive use of discussion, 'commissions', case-study methods, practical exercises—even educational 'games'—if such courses were to have not merely an intellectual impact but a real influence on the head's work in his school.

A high priority

Heads, teachers and schools are already hard-pressed; it may seem somewhat unrealistic to urge further burdens upon them at the present time. If the present shortage of teachers and pressure upon the schools were likely to be short-lived, soon to be replaced by 'normal' conditions, the argument that all this might be delayed until better times would have more force. But today's problems are by their nature long-term; we have to learn to make do with a smaller proportion of teachers to children than we would wish, and to do this at a time when qualitative as well as quantitative improvements in the work of the schools will be expected. Given this situation, the provision of a much more systematic high level training for those who administer and direct our schools would seem to justify an important place in our scale of educational priorities.

The Swing Towards Comprehensive Education

The last few months have seen a swing towards comprehensive education on the part of several local authorities. Among counties, Somerset and Cornwall lead the way, the former is planning a number of full comprehensive schools, the latter is to introduce a scheme similar to the Leicestershire Plan in two areas in 1965. In the Long Eaton area of Derbyshire, incidentally, the 11 plus is being abolished this September when all children in primary schools will be automatically transferred to junior secondary schools.

Bradford is seriously considering going over completely to a comprehensive system, while there are indications of similar developments in Liverpool and elsewhere. The most striking of recent decisions, however, is that taken by the Manchester City Council in July. Here, by 62 votes to 25, the Council determined on a complete transformation of the system of secondary education on comprehensive lines. The resolution is of such general interest that it is worth reproducing in full:

Resolved,

That in order to make an end of 11 plus selection and the practice of segregating secondary pupils in this city into Grammar, Technical High and Secondary Modern schools, the Education Committee shall prepare and present to the Council within six months proposals for converting all county secondary schools, and such other appropriate schools as may wish to participate, into comprehensive schools. It is envisaged that the new pattern of secondary education in the city will be one in which suitable schools will offer comprehensive education for pupils between the ages of 11 and 18 without a break, while other schools will be re-organised as Junior and Senior comprehensive schools, with such other variations in the general pattern as may seem desirable: provided always that the principles of comprehensiveness and common secondary schooling are maintained. In preparing their report the Education Committee shall have discussions with the voluntary bodies and the teachers. The Council are also conscious of the need for speed and hope that it will be possible to abolish the practice of selection by 1965.

History in an Unstreamed Secondary School

NANETTE WHITBREAD

Miss Whitbread has taught history in two secondary modern schools, one of them an unstreamed school. She has recently been head of the history department of a London comprehensive school and has just taken up her new appointment as lecturer in history at the City of Leicester Training College.

It is not my purpose here specifically to argue the case for an unstreamed school, but rather to discuss some of the problems and describe some methods that I found appropriate in teaching history in an unstreamed mixed secondary modern school. The circumstances were perhaps particularly suitable sociologically, as the school was a new one in a well-established London suburb. Certainly the work was particularly rewarding and a practical example of the overall advantage of mixed ability over streamed classes.

Of course the ability range was considerable, especially in the first year forms which children entered from their streamed primary schools. This range was most evident in written work and independent reading, as there were two or three in each class who could scarcely read at all when they came; but it was much less of a factor in oral work and in evident understanding of oral and visual presentation. With the stimulus of class discussion and of comparative but non-competitive standards in group work, and above all the collective urge of each class to raise its standards as a whole in healthy competition with other similar classes, the range tended to contract upwards at the lower end of the scale.

Stages in note-taking

Great attention has to be paid to careful training in making notes. As most first year secondary children have no very clear idea of the principle of briefly recording essential points of information, it is possible to take whole classes through the same stages.

Stage 1: Simple sentences with a gap for the key word. (At first the key words themselves might be on another part of the board.)

Stage 2: The first part of several sentences on the board for the children to complete themselves.

Stage 3: Questions on the board for the children to answer in single sentences.

Stage 4: A development of stage 3 with some answers extended into several sentences.

Stage 5: Sub-headings only on the board. After discussion the children write their own sentences. (At each stage some helpful words and phrases, proper nouns or new words might be elsewhere on the board.)

The whole class quite quickly reaches Stage 2. Some move easily to Stage 3, others do so with a little help and correction, while perhaps a third need considerably more guidance. Individual help must be given them while the majority continue on their own and progress naturally to Stage 4. Stage 5 can be reached by all, at varying levels of proficiency, even by those who are not yet very competent at Stage 3. Here again there is scope for the individual guidance that is especially essential with unstreamed classes. The material on which such notes are made may derive from stories or descriptions presented orally, from sections in textbooks, pictures, films or varying combinations of these. Naturally the standard of the finished work must vary, even as it does in streamed classes; but the vital factor is that each individual child's work progresses and confidence is gained in his ability to do his own work, to make his own notes.

Creative writing

When more creative writing is attempted in the form of the story of an event or famous person, all the children are asked to write this story or description, but they will do so at their own level—and the teacher must mark it at that level. They can all listen to, understand and enjoy the same story if it is well told. They all benefit if proper names, special terms and perhaps even the thread of the story in diagrammatic form are clearly on the board. Then accuracy can be demanded of all in their written versions; but better style and phraseology must be required of those who are ready for guidance of this kind, while only essential syntax will be stressed with those who are not yet so competent. Afterwards examples of good, long, imaginative and detailed versions and of shorter factual ones can be read out for encouragement and emulation. Group pride in the achievement or progress of members must be developed.

Culture and General Education

KENNETH RICHMOND

This remarkable book discusses the results of the 'test of culture' devised by the author, two of which, when published in *The Times Educational Supplement*, evoked such wide interest that he was almost overwhelmed with unsolicited test scores and correspondence. The tests are no mere quizzes; the results, from Universities, Colleges, the Services and Sixth Forms, are often surprising, sometimes disquieting, in the light they throw on standards of general education and on the 'great divide' between the scientist and the arts man. 21s.

The Teaching of English Literature Overseas

Edited by JOHN PRESS

Extracts from the proceedings of the conference held at King's College, Cambridge, in July 1962 under the auspices of the British Council. The report includes important contributions on the teaching of English Literature in universities, teacher training, and adult education in schools (English-medium and other), and it discusses the position both in advanced and developing countries. 30s.

METHUEN

Communist Education

Edited by EDMUND J. KING

Recent developments and present trends in Communist education are traced in this authoritative survey by specialists who have professionally studied and visited the U.S.S.R. and other Communist countries.

Eight chapters deal with particular aspects: ideology, psychology, the selective process, the rôles of teachers and parents, poly-technical education, the universities and professional institutes. Three chapters survey East Germany, Poland and China as special case-studies. A concluding chapter examines common ground between Communist and other systems.

This is the first survey to convey effectively the post-1958 story of re-orientation after the 'Krushchev Reforms'. Objective though it is, it imparts as vividly as possible the 'inside view' which only the trained and practised observer can achieve. 25s.

The class can, then, work as a class at the same subject matter, though the standard of written presentation must be expected to vary considerably from child to child. The stress must always be on each child's own individual improvement over previous work, rather than on comparison with others. The same principle applies when they are reading, whether they are doing this in preparation for written work of some kind or for short talks and discussion. They can all read about the same subject—how a prehistoric tribe found food, Greek myths, life on a mediaeval manor or in a Georgian coffee house. It is the depth and extent of their reading that inevitably varies. This calls for a range of graded textbooks, some lavishly illustrated, others containing a mass of fascinating detail. The teacher's role here is to provide each child with a suitable book, and to guide him towards progressively more advanced ones. If oral classwork follows, the teacher must ensure that those who have had access to only the most limited material are given the chance to contribute first, and must temporarily hold back the enthusiasm of those who have been able to read more fully, till the time when their contributions are most pertinent and valuable as amplification.

The use of projects

Projects and Assignments must play an important part in the work of an unstreamed class. For projects the class should be divided into groups of three to five, each group comprising a representative range of ability and if possible including a child with some particular ability such as drawing, neatness, mapwork or lettering. As with any projects the teacher has to do a lot of organisation in apportioning work and guidance towards its production in finished form as wall sheets and models or folders. But if it is more difficult to organise a project with a class of mixed ability than it would perhaps be with an 'A' stream, it is certainly far easier than it is with a 'C' or 'F' stream where such work is usually recommended. Each group becomes enthusiastic about its own section—perhaps on Victorian entertainment—and determined that it shall compare favourably with other sections; in the course of work it becomes proud of its own artist, of the skill of one in using the index to ascertain significant factual detail, of another's neat captions. Many different abilities are called for, and everyone wants to contribute. It is probably in unstreamed classes that group project work is most valuable.

Assignments and non-streaming

Assignments are essential in unstreamed classes: they are the means of controlling the progress of each individual child, of ensuring that everyone is working to capacity. Various forms of assignment can be used, depending on the subject matter and books available and on the underlying intention. Life in the Middle Ages could well be studied through assignments. Topics such as the castle, manor, town and monastery might be selected: detailed questions are set on each topic, and page references given to a variety of books; some work is required in written form, some as drawings, some needs concise and precise answers and some lends itself to more elaborate descriptions.

Certain topics should be framed in a very simple form using the easier books, while others will be progressively more difficult and require more prolonged research. First cards of an appropriate level of difficulty should be given out at the start; then as one topic is satisfactorily completed, a child can be encouraged to tackle a slightly more difficult one. The teacher is free to give a great deal of individual help where it is needed, and becomes a guide rather than an instructor. Alternatively, the assignments can be of more uniform standard, and the children allowed to work in pairs with the abler helping the slower. Since some inevitably complete more topics than others, it is useful to end the four- to six-week period with a Brains Trust consisting of a series of panels on the different topics: every child should play some part on at least one panel. It often transpires that some of the slowest have mastered their topic remarkably thoroughly.

On other occasions an assignment may consist of a long duplicated sheet of set work sub-divided under headings, the first two-thirds being fairly straightforward and the last third requiring much larger sections of reading followed by short compositions. Such an assignment could be compiled on the explorations of the fifteenth and sixteenth centuries, or on new methods and inventions of the eighteenth century agrarian or industrial revolutions. The whole class can then complete the first two thirds, while some go on to complete the whole. This type of assignment tends to gather momentum, so that many of the initially slower workers voluntarily spend extra time on homework and unexpectedly succeed in tackling the final section.

Every term's work should include at least one assignment of some type. Familiarity with work of this kind is essential if full-scale history projects are to be successful. All assignments, and indeed all work in unstreamed classes, must be based on minimum requirements and maximum extension—

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and the teacher must constantly review the lower limits, so that the overall standard of the class steadily rises. It is in fact only in an unstreamed school with genuinely parallel classes that real standards of comparison, and hence of progress, are possible. Socially constructive group competition is substituted for the anarchy of individual competition, though individual pride in one's own work and progress is naturally fostered.

Text-books and readers

A wide variety of textbooks and supplementary readers is a prerequisite for successful history teaching with unstreamed classes. There must be books as simple as the Unstead *Looking at History* series (A. & C. Black), as small and undaunting as the Ginn *Shelves*, as selectively specialised yet readable as the Longmans *Then and There* series, as detailed as Harrap's Milliken volumes or Tenen's *This England* (Macmillan). Perhaps the most difficult task is to select the basic class textbook for issue to everyone. It is desirable that there should be such a book as a co-ordinating factor, for pride of possession and a business-like approach, and to facilitate the setting of homework. It must be of mean standard, in both content and vocabulary, adequately illustrated so that some information can be gleaned from the pictures which then serve as a stimulus for reading the text: it must be the book which the weakest strive to understand without being discouraged by the difficulty, and the basis from which the ablest can expand their reading.

History teachers must see that a similar range of graded reference books are available in the school library. Everyone in an unstreamed school must feel that the library is for all to use, and the history teacher has an excellent opportunity for guiding them and giving them confidence there, especially when projects or assignments are under way.

Though assignments and projects are important, teachers must not be tempted to abandon class teaching in favour of group and individual work because the ability range is wide. To do so would be to deny the social value and intellectual stimulus of unstreamed classes. History is above all a subject for discussion, exchange of information and ideas. Provided it is accepted that the quality of written work must be varied, there is ample scope for interesting class work—and the standard becomes progressively much higher and less varied than expected.

All learning, but especially the learning of history, should be a social process. History appeals at many different levels, ranges through daily life, adventure and the realm of ideas, and demands contrasting

Some Questions Concerning Non-Streaming

C. H. ZOEFTIG

Mr. Zoefitg has had many years' experience as an assistant and head teacher of junior schools. He is at present senior lecturer at Battersea Training College.

Arranging children in classes and forms in relation to their intellectual ability and attainment in the three Rs. has been the practice in most urban primary schools for a considerable number of years. In the larger schools this has been carried out within year groupings and the children classified as A, B or C or similarly classified according to their intellectual status. This practice has been generally known as 'streaming'.

Streaming under fire

Steadily the education of children has come to mean much more than instruction in and development of the skills of reading, writing and arithmetic, although these themselves have proved to be fruitful and enjoyable experiences for children, in contrast to their former appearances. Many other aspects of development of equal importance are now taken into account and catered for in the schools, with richer and wider experiences in living and learning for the children and teacher. For these reasons, as well as for social and psychological reasons, the practice of streaming is now a subject of critical examination by teachers and educationists. Many people rightly feel that children should not be organised and educated mainly for the purpose of the requirements of an eleven plus examination and for possible entrance to a grammar school from which only a minority may or may not benefit.

Much has been written in the popular press and educational publications; discussion and argument has followed, and the doubts about present methods of organisation are being expressed by all kinds of people from all sections of the community.

As a result, many headteachers and school staffs dig their heels in and express satisfaction that children could not be better served than by the system of streaming as practised. Others feel unable to see very much difference one way or the other, the results being more or less the same in the end. Some come to the conclusion that they would prefer a non-streamed school, basing it upon a considered evaluation of all the factors involved, weighing the educational, social and individual advantages and disadvantages carefully in the process.

During the past ten years many schools have effected a happy transition, and have for some time experienced the benefits of a non-streamed school. Some have written about their experiences and the short and long term effects, how difficulties were overcome and problems solved.

A fundamental transformation

Those schools in which non-streaming simply replaced streaming and little else; where the school proceeded as before with continuing dependence upon the standards and incentives previously employed, have failed to understand and respond to the significant changes of principle involved. The consequences are unsatisfactory for all concerned—children, staff and parents—and could not in any case be fairly judged to assess or justify the non-streaming as an educational and social practice in school. It is probable that under these circumstances non-streaming would be held to be unworkable and undesirable.

The fact is that non-streaming is just one aspect of a fundamentally different approach to the understanding of the needs of children and the satisfaction of these needs, with an integrated individual and social arrangement developed accordingly.

If we look at some of the traditional practices in a streamed school, it will be apparent that their value will have to be reassessed in the light of any reorganisation.

Competition, intellectual competition, is usually a strongly defended incentive in most schools. This is competition fostered and encouraged by the teacher and quite different from the spontaneous and spasmodic contest between children. It is argued

HISTORY IN AN UNSTREAMED SECONDARY SCHOOL (*continued from page 14*)

qualities of imagination and logic for an understanding. The richness of varied response, from which children and teachers gain alike, is best experienced when classes are not streamed. Presenting

history to unstreamed classes demands particularly careful preparation to meet the variety of needs, which is the incentive to lively and imaginative teaching.

that this teacher-inspired competition is a necessary and good method of ensuring progress and the pace and extent of development depends upon it. In a limited context this is no doubt true, especially for the more able children with a limited purpose in education. It is questionable whether the less able children in any stream really benefit from it and it is obviously out of place in an unstreamed school.

The effect of continuing with this type of competition in a heterogeneous grouping would be confusion and despondency all round and would no longer serve any useful purpose. Yet other incentives there must be and where this has been well considered children and teachers have found a deeper and more significant purpose in their work.

Co-operation and the pleasure in working with others in local studies, group work and mutual help do satisfactorily replace status competition.

The junior leaving examination, a competitive examination in fact if not in fancy, is another aspect of primary education which too often limits the curriculum and development in the school. Fortunately this examination is under fire from all quarters. In the unstreamed school it is unquestionably out of place for the majority of the children.

Rewards and punishments

A system of rewards and punishments for good or bad work is a feature of many schools which depend upon a merit organisation. Where does such a practice fit into an unstreamed school if at all? Is a prize day or speech day a pleasant occasion, except for the successful few? Are we still to 'punish' children by allowing them to be continuously at the bottom of the class list and 'reward' those by their regular place at the top. What is the eventual effect of these things upon the confidence and character of the individuals? Certain values appear to be no longer relevant: in fact very little of what fitted in before will be found upon analysis to be appropriate to an unstreamed school.

It must be considered how, when and where class teaching benefits the children in a non-streamed school. If there is to be group work, and obviously this will be necessary, how are the groups to be arranged? Also it would appear that individual methods will need to be developed enormously and ways will have to be thought out which will enable this to be accomplished. Children will undoubtedly be required to grow up in responsibility for themselves and for their fellows: social responsibility. Generally, then, the question is how teaching and learning in the various aspects of the curriculum is

to be effectively developed with a class of forty children of very much wider ability and from varying home backgrounds.

In the unstreamed organisation the place, purpose and methods of testing would have to be looked at afresh. Are weekly, monthly and termly tests or examinations appropriate now? If they are felt to be no longer valid or purposeful then some form of assessment of individual progress and achievement must be arranged that will be satisfactory to the children, their teachers and parents.

These are some of the more apparent questions which arise and it is not possible or intended that solutions should be suggested in this article. There are, of course, satisfactory ways of dealing with such questions; many schools have answers which cover the new situation. Many different approaches and new ways of working with children have been thought out with most successful results. When non-streaming has been attempted and not come up to expectations, it is found to be due largely to a superficial change of organisation with methods and attitudes mainly continuing as with streaming. It can be seen that what appears to be a simple uncomplicated organisational change involves an examination and reappraisal of many of the basic assumptions of educational practice.

To make the change

If a school feels it desirable to make a change, what is the best way to go about it with as little upset as possible and with every chance of success? It must be decided whether a clear-cut, immediate and total change is to be made, involving all year groups, and all the staff. This would mean that many problems would arise within a short time and difficulties would be numerous. On the other hand, would it be better to effect the change over a number of years beginning with, say, the youngest year group? In this way these children would progress through the school unstreamed and those who follow would also not be streamed, thereby a gradual change would come about. Whichever way it is decided to work it is the understanding and patience of the members of the staff in the face of a new situation which is of great importance.

It would also be necessary to consider the feelings of parents, especially those whose children are or would be in the 'A' stream. They could be very perturbed about what is happening and could, through the children, and in other ways, make the change more difficult.

There are schools which have unstreamed, yet

within the classrooms streaming in ability groups has continued with as much fervour and distinction between the groups as occurred before between classes. This, of course, defeats the purpose of the organisation as a whole. At the same time it is very difficult to get the attitude developed by years of streaming out of the system and only a determined effort can eradicate habits associated with a different way of living. If we were to take streaming to its logical conclusion we should arrive at as many streams as there are children. (Streaming is an arrangement of children designed mainly for the benefit of the administration and the teachers and due to the largeness of classes.)

Some research into the relative merits of streaming and non-streaming has been carried out and much wider investigations are now in progress. It is to be hoped that these investigations will provide evidence and help for teachers and schools. But children, teachers, methods and associated environments must make objective assessment very difficult. There are countless variables which it will be difficult to take into account. In the end it is probable that we shall find ourselves with little more information to help make a decision than we have now.

The organisation of a school depends much upon the beliefs, attitudes, values and experience of its adult members. A decision not to use a streamed organisation means the acceptance of one way of living and learning in preference to the other.

Editorial Note

DR. ROBIN PEDLEY

In May, Dr. Pedley, who has acted as joint editor of FORUM since its inception, took up his new post as Director of the University of Exeter Institute of Education. As a result of his new responsibilities and geographical position he has reluctantly felt unable to continue as joint editor.

The Editorial Board wishes to express its great appreciation of his services over the past five years, which have played an important part in establishing FORUM as an independent and authoritative educational journal, and to wish him every success in his new post.

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Assistant Master at Merchant Taylors' School, Northwood

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Discussion

Training Colleges and Academic Standards

As one who has recently joined the staff of a Training College after a fairly wide and progressively responsible experience in other forms of teaching, I find myself questioning some of the fundamental assumptions underlying the aims and methods of the Training Colleges and the Ministry.

For example, a very large proportion of places are given to young women who are training for work in primary schools. On present trends the *majority* of young women teachers will leave the profession for marriage within a few years of training. Some of them may return in later years but one is tempted to ask 'why not give a larger proportion of these places to men or more mature women?' Men make excellent junior school teachers; they are likely to give a longer period of service and provide a stable nucleus of staff. (It is not exceptional today to find a junior school with a staff turnover of over 50% in a given year.)

In order to attract more men into teacher training it may be necessary to break down the traditional view that primary schools are a feminine enclave. It may be necessary to consider a 'dependants' allowance' in the salary structure for both men and women; it may be necessary to meet the needs of mature students of both sexes more fully by adjustments in the residential regulations, content, approach and timing of the course. At the moment they may have to fit in with a programme mainly intended for ex-grammar school eighteen-year-olds. Perhaps the most important thing is to convince people that teaching is a worthwhile job; there must be many intelligent men and women engaged in routine industrial and clerical tasks who would be willing to train for more creative employment.

This raises the question of academic standards both of admission and in the content of the three year course. The Training Colleges seem to be falling between two stools at present. Although not qualifying for graduate status, the main course work in some subjects aims at a level commensurate with pass degree standard. The approach too is often academic; there are lecturers whose main interest is in their 'subject' and those who are responsible for 'Education'. Although subject tutors take part in supervision of teaching practice and give 'curriculum' lectures, there remains something of a cleavage between 'Main Studies' and Education. On the one hand there is the attempt to raise the level of main subject studies to graduate level while on the other candidates are admitted with only four or five passes at 'O' level, sometimes without Mathematics, or with English Language at the second attempt. There are also the mature students who, in their own words, 'may be a bit rusty'.

Is this academic emphasis the right one? Should the Training Colleges try to be like the Universities in

stressing the subject disciplines? Or should they put the training of teachers first and lay less stress on the main subject studies? Should the staff aim at being 'educationalists interested in a subject' rather than 'subject specialists interested in education'?

After all, putting aside the education of very able older children—a minority requirement which must be considered separately—what qualities should we seek in our teachers? I would suggest these:

- (1) Intelligence; but not necessarily of the scholarly kind.
- (2) Communicative power; the ability to express themselves in spoken and written English (and other media e.g., art) and to feel and evoke enthusiasm.
- (3) Understanding, with particular reference to the needs of children and young people.
- (4) Critical awareness; readiness to examine concepts and methods old and new like 'free activity', 'teaching machines', the use of structural apparatus in mathematics, the form of the 11-plus, education for marriage, class, individual or group assignments. Not to be taken in by 'catch-phrases'.
- (5) Integrity; expressing a consistent (but adaptable), broad, sympathetic personality; avoidance of a '9 to 4' attitude; ability to relate education to life, sincerity and approachability without a false camaraderie or hypocrisy.
- (6) A good general education, but with some disciplines, skills or interests developed in more depth.

If these are accepted as the qualities which the training of teachers should bring out, greater regard must be paid to personality when selecting candidates and less to the number of 'A' level passes. Furthermore there must be a swing away from imitation of the Universities towards a more integrated course, with the staff working consciously as a team. The present tutorial system would fit in very well with the idea of 'developing a personality' rather than 'training a P.E. teacher', but, in some colleges, students are still treated as older pupils of a boarding school and do not get as many opportunities for responsible self-discipline as their University contemporaries.

J. HOWARD.

Critique of Students' Views

FORUM'S teacher-training number (Vol. 5, No. 3) supplied a thought-provoking range of attitudes on what is rapidly developing into a central theme of educational policy. Its aim was to stimulate discussion. Those contributions submitted by past and present students at least will certainly have done this. Assuming that these samples of the consumers' angle are fairly representative of a certain body of student opinion and not just isolated examples they must be answered from the other side of the counter with the same refreshing frankness.

CONTINUITY AND TRANSITION

The Curriculum Problem of the Junior School

N. E. WHITING

Mr. Whiting has taught in several schools in London, and has been a Housemaster at Holland Park, one of London's comprehensive schools. He is at present a lecturer at the City of Birmingham Training College.

'What should the majority of children know at the close of the primary course?' So asked Mr. Freeland in a recent article in FORUM (Vol. 5, No. 1). Everyone has his own ideas on the answer, but policy statements on curriculum and attainment in the primary schools both at local and national levels appear to be lacking. The focus of attention during the last few years has been on selection for secondary education, and within that wide subject, it is the vertical divisions within the secondary system that have been most fully discussed. The horizontal division between the primary and secondary stages has been considered mainly in the light of the controversial problem of secondary selection, but in fact an equally serious problem arises from the completeness of the break that occurs for most

children at the age of eleven, whatever their secondary fates may be.

The problem lies not in the change of school itself; this may be necessary and perhaps desirable at some stage. The difficulty is that the change is all too frequently a complete break in content and method in what should be an educational continuum; the present general lack of integration of primary and secondary work is surely one of the major weaknesses in English education at present, and one that needs urgent investigation from many angles.

The very freedom from central control which our schools enjoy may be one of the strengths of our system, but it is also a potential source of weakness. The work of a school may not be related in any way

DISCUSSION (*continued*)

The theme of the editorial was the over-all need to integrate the training colleges with the universities as institutions of comparable status and amenities. Robbins, it is hoped, will have this as one of its key recommendations. Those bodies which reflect lecturer opinion, the A.T.C.D.E. and the Training College Advisory Committee of the N.U.T., have already come out unmistakably in support of such a policy. Yet student Caldwell campaigns for the very opposite. He speaks of two kinds of teacher, two kinds of training. He is opposed to the imposition of high academic standards on the training college when the great weight of contemporary opinion is moving strongly in this very direction and for two obvious reasons.

In the first place this is the only sure way of eroding the poor-relation status of the training college students *vis-à-vis* their counterparts in the universities. It is hard to believe that he is totally unaware of A.T.C.D.E. and N.U.T. pronouncements on this and harder still that he is aware and has not been utterly convinced by their obvious logic. Secondly, high academic standards are now clearly possible and necessary. Has he not seen this year's students' on-entry qualifications analysis for teacher training colleges issued by the A.T.C.D.E.? Something like 65% had one or more subjects at 'A' level of the G.C.E. Nearly 40% had at least the minimum of two 'A' levels needed to qualify for entry to

universities, and nearly 13% had three 'A' levels. Only 8% of the men and 5% of the women entered with only the minimum requirement of five 'O' levels. It was also distressing to see that he found it necessary to use such language as 'churning out people who will be able to restrain the eleven plus rejects and perhaps, as an incidental, drive home a few facts into their dull, unexciting brains'. Age, experience and deeper reading will, one hopes, rescue Mr. Caldwell from his present distorted postures.

The evidence concerning post-graduate university departments of education offered by student Jupp and teacher Armstrong underlined the weaknesses inherent in the university consecutive method of teacher training and the advantages of the concurrent procedures adopted at training colleges. Here again it was upsetting to read of teaching being regarded as a second rate job, something one ends up in because the other alleys seem less inviting. The only thing one can possibly say in this context is that working in the field of education presents one with the awful responsibility of being placed in a highly formative position over the minds of children during their most acutely formative years. In all honesty, if one doubts the honour of such a status, one has no place in a school.

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to that of any other school, except through the requirements of examinations; the G.C.E. of any one examining board imposes some uniformity on a group of secondary schools, as does the examinable portion of the 11-plus procedure of a local authority on its junior schools. But this is the very type of uniformity which is not wanted; it is too often a narrowing uniformity imposed by syllabus requirements, whereas, at the junior stage certainly, what is really needed is some agreement on the broad lines of curriculum, and also of method in the early stages of technique acquisition in certain subjects. We must of course beware of the imposition of a rigid external control on what we teach and how, and perhaps even when, we teach it; such control would be educationally unsound and professionally crippling. Yet while we would resist such measures with all our strength, we allow on the one hand an unimaginative constriction of some aspects of primary school work for many of our children, and on the other hand a degree of freedom that can amount to a completely independent functioning of the primary and secondary stages of the educational process.

Between the extremes of overall external control and independent internal autonomy there lies a middle course. There appears to be a need for some degree of uniformity within the work of the junior schools of a district, so that the transition from primary to secondary school can be made as smoothly as possible, and so that each junior school may have before it an aim less nebulous than our general educational purpose, but less narrow than the passing of an examination.

Too much freedom ?

Indulgence in our present freedom leads to much frustration for children and teachers, and the waste of much time and effort. For instance, in any one secondary school, drawing its pupils from many junior schools, much first-year mathematics time may be wasted for some children because the teacher uses a mechanism for simple subtraction different from the one they were taught in their junior schools, or because he assumes some knowledge which they do not possess; or boredom may result from excessive repetition of work mastered at an earlier stage. In some other subjects it may be more difficult to state standards with any precision, but is it desirable to have the vast range of achievement and background that is frequently to be found within any one intake in a secondary school ?

Such a range of achievement, knowledge, and skill in one first-year class increases teaching problems unnecessarily. To consider one subject only, the children's previous experience in geography may

range from an ambitious local study in the junior school, with use of large and medium scale maps, to a complete ignorance of any map of any sort. Some children may have followed a junior school course which has given them a basic knowledge and appreciation of the major geographical patterns of Britain, and perhaps of the world as well; others will hardly have done anything that could be claimed as having geographical content. This is not merely a question of abilities; these differences occur in groups of children of comparable abilities living in one district. The paradox of the junior school curriculum lies behind this. The freedom from external direction can result in a lack of balance if the head or class teacher allows free rein to a strong interest in one subject or method. Conversely the same freedom can be undesirably restricted by the demands of secondary selection which, particularly if succumbed to with lack of imagination, may limit the work of the school, especially in the third and fourth years.

The need for liaison

It would be interesting to know the extent to which primary and secondary schools in any district have really meaningful liaison. Meetings of head teachers are useful provided that the exchange of ideas can be passed on to the teachers in the classrooms. It would be even more helpful if the teachers themselves could meet more often in a spirit of serious discussion, which might help to reduce the mutual recriminations about how little 'the other side' manages to teach children nowadays. Even where such contact exists, however, the problem for the secondary schools is not likely to be finally solved; but mutual understanding of aims and difficulties could help to pave the way for the agreement on the content of the junior course which seems necessary.

Such agreement must not take the form of a compulsory common syllabus, but something more valid educationally than secondary selection procedure is needed as a working guide for the junior teacher who sees his work as a part of the continuing educational process. Would it be too difficult for a local authority to set out a curriculum for its junior schools, drawn up after the most careful consideration of aims, purposes, and standards by teachers experienced in infant, junior, and secondary work ? Such a curriculum might recommend the adoption of certain techniques and methods where proliferation of method leads to confusion; beyond this it should not attempt to be too specific in laying down standards, nor should it specify detailed syllabuses in each subject. All that is necessary (not much in print though a very great deal in thought and pre-

Autonomy within the Comprehensive School

L. J. CULCHETH

Mr. Culcheth was until recently senior master and director of studies and head of the history department at Monks Park comprehensive school, Bristol. He previously taught history and economics at a grammar school and is now headmaster of Redborne secondary school, Ampthill, Bedfordshire.

Much has been said and written lately about the 'two-tier' system of comprehensive education. This has been exemplified by the Leicestershire plan and by the Croydon proposal to make the break at a later date by introducing Sixth Form Colleges. These schemes have the advantage of reducing the size of the school and are designed to make use of the existing buildings. They can, however, produce continuity problems caused by a complete change of school during the period of secondary education. At Monks Park School, Bristol, we have evolved a system whereby the disadvantages of size are minimised and, at the same time, continuity is maintained.

Monks Park School is a comprehensive school of the Bristol pattern. This means that it is largely a neighbourhood school, drawing its non-selected pupils from near the schools and its selected ones from a wider area. It has an annual intake of nine forms, two of which are selected—on average containing a total of 300 pupils.

Opened in 1957, with selected pupils in the first year only, the school has this year acquired its first Sixth Form and now has a total of 1,414 on roll. Thus size could now be a serious problem. That it has been largely avoided is due partly to the original plan of organising the school as Lower, Middle and Upper Schools and partly to geographical accident.

(continued from page 20)

paration) is a general statement of the types of work which should be tackled during the junior school course, perhaps with children of average abilities in mind, and with suggested modifications for the more and the less able. To use again the example of geography, it might be suggested that children should make some study of their local area, should use street plans and large-scale maps, should have some familiarity with sample environments in Britain and with the map of Britain, and so on. Details, timing, and methods (such as degree of integration with other subjects) must be left to head and class teachers. Less time would then be wasted in the early stages of the secondary course, since all teachers would know what type of work has been tackled by children coming from all of the primary schools of the district.

A national curriculum ?

A national curriculum on these lines might be too ambitious a proposal, and may not in fact be necessary to achieve a greater continuity between junior and secondary education. The difficulties would be great enough even within the area of one local authority, and it might even be more practical if a limited group of junior and secondary schools could evolve a trial curriculum to be worked for an experimental period before any attempt to apply it to the whole of the local authority's area.

Teachers are rightly jealous of their independence and professional freedom. Perhaps it is necessary, in view of the strength of this feeling, to emphasise that this article does not advocate state control of the syllabus, or compulsory use of text-books written by the local inspector, or chanting of the same spellings at 9.30 in all schools. Nothing professionally subversive is intended; it is simply an attempt to promote discussion of the problem, and a suggestion of one possible means of tackling it. Mr. Linfield, in his article in an earlier issue of FORUM (Vol. 4, No. 2), wrote of environmental factors in the transition from junior to secondary school. The present article mentions some of the difficulties of maintaining continuity at this transition and the importance of the junior school curriculum in this connection. Perhaps the case has been over-stated; perhaps there are areas where primary and secondary schools know what each other is doing or attempting; if so, it would be interesting to hear of the extent of the co-operation and how it is achieved.

Dichotomy is becoming fashionable; the intellectuals have their Two Cultures, the economists their Two Nations. We in education have followed suit and insulated ourselves in our primary schools and our secondary schools, never crossing the straits to see what is being done on the other side; it is only the children who have to make that uncharted journey.

In 1957, the school opened with only eight forms—four in the first year and two each in the second and third years. These were all housed in the first building—now the Upper School. Shortly afterwards, work was begun on phase two—the Middle School, which was joined to the Upper School by the Technical Block. These together formed the Main School. Phase three, the Lower School, originally planned to stand beside the other two, was to be delayed for several years. Meanwhile, the Lower School was to be housed in the buildings of a girls' Secondary Modern School, suitably modified with specialist rooms. The pupils of this school had now been absorbed by Monks Park, together with those of a boys' Secondary Modern and a mixed Secondary Modern School, both of whose premises were required for other educational purposes.

The lower school

A major problem was that though the Lower School was quite close to the new buildings, it was separated from them by the Ministry of Transport trunk road—the A38 road between Gloucester and Bristol. At this point the road carries a very heavy volume of traffic as it links the neighbouring industrial area of Filton, with its vast engineering and aircraft works, to the centre of Bristol. As attempts to procure a foot-bridge or a pedestrian crossing both failed, it became obvious that the number of pupils crossing this potentially lethal road would have to be cut down to the minimum. This was the origin of the semi-autonomous status which the Lower School has gradually developed since these buildings were taken over in 1960.

The Lower School contains all the first and second year forms—usually 18 forms in all. This gives a unit of approximately 600 pupils which considerably cushions the change-over from the smaller primary school to the large secondary school. The Lower School has its own Master in Charge, together with a Senior Mistress to see to the girls' welfare and discipline. As far as social activities and contact with parents are concerned, it is almost entirely an independent unit. The Head of this section interviews all the parents, controls discipline, sees to buildings and equipment much as he would if it were a completely separate school, although at all times he works in close liaison with the Headmaster, Deputy Head and Senior Master, who are based in the main buildings across the road.

Socially, too, there is a great deal of autonomy. The Lower School has its own prefects who begin to learn the joys and ties of responsibility in their second year. It has its own Theatre Group which

presents annual plays, its own choir, games teams and numerous clubs. It also has its own staff room.

Thus, the child of eleven entering Monks Park finds few of the social disadvantages which it is often claimed that a new child in a very large school must feel. For the more backward children, particularly, it is beneficial. The bewilderment, which can be painfully intensified when a change of school also means vast buildings with (apparently) endless corridors, is greatly lessened. The Master in Charge is very soon a familiar figure, known to all and, before long, knowing all.

The Lower School thus acts both as a cushion and a classifying unit. Modified Primary School teaching methods can continue, minimising the abrupt change from the informal Primary methods to the formal teaching necessary to prepare for public examinations. The whole of the first two years can also be regarded as a classifying period. Work is not judged on the basis of one examination alone, nor merely on the recommendation of a Head Teacher whose Primary School might be too small to give an adequate overall picture. Here, too, the late developer often emerges, before enthusiasm is dampened and opportunity lost.

The main school

In their third year, children enter the Main School—a break which many regard as beneficial. The Main School consists of the Middle and Upper Schools which have, because of the design of the buildings, to be administered as one unit. Here the autonomy is only one of discipline which is separately administered by those in charge of the Middle and Upper Schools. Even the division of forms is somewhat arbitrarily dictated by the accommodation available. All the third forms and some of the fourth year are housed in the Middle School whilst, at present, the rest of the fourth forms, the fifth and sixth years are based in the Upper School. Socially, too, they are run as one, the multiplicity of clubs and teams being open to all.

It is in this part of the school that the advantages of size are obtained. There is at least one club for almost every letter of the alphabet so that there are few children who do not find some interest catered for. In academic work, the benefits of size and a large staff with a wide variety of qualifications are clearly shown. The three forms in each year which take G.C.E. have a choice of nineteen different subjects plus P.E. and R.I. The three which at present take the Secondary Schools Certificate of the Union of Educational Institutions have a choice of courses with an academic, practical or general bias, offering in all twenty-two subjects. Special

courses are also planned for the fifteen year old leaver and for the less able pupils. A wide variety of 'A' level courses is also available, as is a one-year intensive Commercial Sixth Form course. Limits are imposed only by the staffing ratio which is less favourable than that enjoyed by the London Comprehensives, for example. Thus the large size of the whole school provides many benefits which would be lost were it split into two smaller schools.

The school as a unit

Academically, in fact, there is no autonomy, for Lower, Middle and Upper Schools are run as a whole. Thus there are none of the academic disadvantages caused by a complete change of schools when the thirteen year old crosses the road to the main buildings of the Middle and Upper Schools.

Courses are planned as an integrated whole and any choices in the Lower School are made with a view to continuity in the Middle and Upper Schools. The Heads of Departments are in charge of their subjects throughout the school and each syllabus is drawn up with complete continuity in mind.

The link is strengthened by the interchange of staff between the two buildings. If the children must cross the road to and from the Main School as infrequently as possible, then the staff must do so more often in order to maintain the vital academic links. Thus when the pupils eventually make the change-over, many of the staff will already be familiar to them. As the interchange works both ways, they will also often retain contact with staff who taught them in the Lower School. Backward pupils will already know the Head of the Remedial Department. She will previously have given them remedial coaching in the Lower School. Consequently, the change will not be abrupt and unnerving for them.

A beneficial interchange

This interchange is beneficial, too, for the staff. Apart from those few who, for reasons of health or rigours of climate, ask to remain in the Lower School, most members of the Lower School staff do some of their teaching in the main buildings. Naturally, this brings tremendous complications to the time-table, but the advantages make these worth while. Specialist teachers can follow their forms through the school, avoiding the monotony which might result from teaching first and second forms only. As there is only one staff room on each side of the road, 'the travellers' can quickly get to know

staff based elsewhere. Lower School staff can meet their Heads of Department to discuss problems and questions of syllabus. Where such informal contact is maintained, there is less likelihood of the development of a split—of a feeling of 'we' and 'they' which can bedevil the smooth working of even a small school and can be disastrous in a large one.

This social contact between members of staff is fostered by joint staff meetings and such bodies as the Staff Dramatic Society, whose plays are produced both by Upper and Lower School staff, members from both sides participating in each play.

Here, then, partly by design and partly by geographical accident, we have developed a school which, because of the semi-autonomy of the Lower School, has minimised the social disadvantages of a large establishment whilst retaining a spirit of continuity and the academic advantages of a large comprehensive school. When the third phase of the buildings is begun and completed the remaining difficulties, not the least of which is the nightmare of the time-table, should be smoothed away.

Secondary Education— Aims and Methods

DAVID RUBINSTEIN

Mr. Rubinstein, who comes from the United States of America, has taught for several years in London comprehensive schools. He is at present head of the history department at Abbey Wood, a London comprehensive school.

It has been fashionable for some years now to condemn the traditional type of class teaching and to praise activity methods, projects and group work in secondary schools. Thus Dr. Pedley in *The Comprehensive School*: 'In what subjects should class teaching *not* be at a minimum? . . . When you go into such a classroom you see first the people who matter—the children, concentrating busily on their particular jobs. Only then do you notice the teacher, quietly discussing a point with this child, or that group, moving about unobtrusively. How different from the dominant figure of old, declaiming on his dais at the front!' (discussing the Rowe method, pp. 93-4).

New devices to assist teaching tumble over each

other; radio and television, films, tape recorders, teaching machines, audio-visual methods, special laboratories. And of course no one condemns mechanical aids; we all welcome them. But the present tendency to bow down before the *deus ex machina* seems to me absurdly overdone. For one example, an article by Peter Laslett in *Where?*: 'Television . . . is helping to transform American education . . . It may yet out-date the printed word as a teaching instrument for many purposes. Television might make a very substantial difference to education in Britain; placed as we are now, looking for a lifebelt, almost, it is our best hope.' (Winter, 1963, p. 4).

The aims of teaching

These sentiments may perhaps seem unexceptionable until one stops to consider exactly what the secondary school should set out to achieve. To me, it is the making available to all our children the best of the culture and knowledge of our time. By this I specifically and dogmatically mean the best of past and present literature and the arts, learning of foreign languages and civilisations, understanding the physical, natural and political structures of our world and how they have come to be. In short, I want a society in which people can talk to each other, secure in the framework of a similar background, a similar educational experience, even if some will inevitably be more advanced than others. That each of us will be more skilled and more knowledgeable in particular things is of course not only inevitable but desirable. A society in which all the greatest achievements of mankind are the preserve of a small minority, even in a country so comparatively rich and civilised as Great Britain, seems to me a society the very opposite of educated in any real sense. Professor Tawney said, over thirty years ago: 'The association of culture with a limited class . . . may refine, or appear to refine, some sections of a community, but it coarsens them, and smites, in the end, with a blight of sterility, even refinement itself. It may preserve culture, but it cannot extend it; and in the long run, it is only by its extension that . . . it is likely to be preserved.' (*Equality*, 1952 edition, p. 89).

The teacher's function

If the extension of a high level of literacy and culture be the proper aim of secondary education, it seems to me that teachers cannot achieve this aim by abdicating their function, either to project methods or to machinery. Of course, I repeat, we must not sneer at or disregard all the aids which we can possibly find, but we must use them as auxiliaries, as servants not masters. If, for example, we use

a series of television programmes as a base for teaching, we have become servants, for we have not chosen the syllabus or the method of treatment. We can merely act as agents of the television company, explaining and amplifying what is beyond our powers to shape. Tape recording in the same manner can easily become a toy, developing a kind of superfluous skill in children without really stimulating their minds.

Projects — and wallpaper

As for project methods; this is a device strongly recommended by many, perhaps most inspectors and teachers of teachers. They are so easily impressed by wallpaper! But how can children of 11-16 teach themselves? How can they, especially in the lower streams, select books, follow a line of thought, make relevant models, understand problems? I have tried project methods with a few difficult or bored classes with but indifferent success. The girls wish mainly to draw pictures of historical costume, the boys of various methods of transport. Their interest is not directed or steady and how can it be, without continuous class supervision and a lead from the teacher? It is one thing to discuss a subject, with the teacher 'declaiming on his dais', the children writing about it as directed, being told about it, reading in a textbook, and *then* drawing or, dubiously, modelling. It is quite another thing to let the child choose his own subject and own method of dealing with it. And if classes of ten and a vast history library would assist the group method, equally would they help class teaching.

I have found that I have been able, to take one example, by question-and-answer and discussion, to teach virtually all phases of (say) 5th century Athens to a class while a colleague has, by group activity, pursued but one aspect in the case of each child. The children spend ages looking for books, going back and forth between library and classroom, unsupervised and gossiping. Even the most hard-working and capable children will be *au fait* with only one aspect of their work. I find the same thing with boys who, at 15 and 16, are to sit the new London Secondary Schools Exam. In the project aspect they are largely helpless in finding their own material, and need constant supervision and suggestion, with but uncertain success at best. Left to themselves, they would crib it all from an encyclopaedia! Is it not difficult enough for sixth-formers and university students to find their own material and study it meaningfully?

I have found the double tables prevalent in new schools useful to the children mainly as a means of cheating during tests. I have yet to see, in any of

three large new London schools, tables being grouped together for project use for any purpose but the after-school activities of the History Club. The History Club, an absolutely essential institution, can be guaranteed to make models and produce pictures, maps and time charts sufficient to fill the available space several times over. Further, given sufficient encouragement, children will read, draw and model in their own time. It is perfectly true that not all children will do this, but the ones who will are the ones most likely to profit from any kind of teaching, and the uninterested children are unlikely to spring to life merely because they are told to select their own books and work.

The stage of precision

Whitehead's three stages of romance, precision and generalisation still seem to me remarkably appropriate to our problems, the stages corresponding to primary, secondary and university education. What we should be trying to do at the secondary stage is above all to open children's minds, to direct the interest roused by the 'romantic' methods so successful at the primary stage, and to help the children to understand problems which we as teachers are uniquely qualified to explain. How can political history, to take one example, be clear to the child of average or even above-average ability on a do-it-yourself basis? Is it not important? Are the triumph of representative government over absolute monarchy, the struggles of religions, the meaning of democracy, the genesis of the two World Wars, the rise of the working class — are not all these and many more matters of first importance to the educated citizen? All subjects which involve more than the mere acquisition of a skill have problems of this type. It is a lack of self confidence carried almost to the point of treason to his vocation for the teacher not to feel that his subject is important and can best be taught by himself.

Of course, there are ways and ways of class teaching. I should not wish to be identified with those people who regurgitate the notes for dictation of years ago, who are not really interested in their own subject, and who cannot make it stimulating to children. If I am a reactionary, at least I am not a completely unregenerate one! Nor would anyone wish to defend those teachers who do not aim at helping children to understand, by themselves moving along the line towards comprehension. But it is the teacher who should direct the process; an educated democracy is not to be formed on the basis of a spurious intellectual democracy between teacher and taught.

Warwickshire High Schools : A Critical Assessment

P. A. BIRCH

Mr. Birch, who in this article assesses the Warwickshire High School system, taught for three years in a modern school in Kent. He has, since then, had four years' experience as head of the history department in a Warwickshire high school and has now been for two years head of the history department in a Warwickshire grammar school.

Stimulated by the Government White Paper — *Secondary Education for all : A New Drive* — published on 3rd December, 1958, Warwickshire Education Committee decided to advance the complete re-organisation of their secondary schools. As a result, by 1st September, 1960, both secondary modern and secondary technical schools had disappeared from the face of the administrative county. Within three years, the old tripartite system had been replaced by a bipartite one, so that today the 40,000 children over the age of eleven are being educated in 20 grammar, one comprehensive and 58 high schools.

There were other reasons, too, for this rapid re-organisation. These were clearly stated by the County Education Officer in his report to the Committee in September, 1958 :

'Three years ago the Education Committee decided on a change in their system. At that time, they were building a number of large new schools, and felt that a fresh approach was needed to the problem of educating pupils over the age of eleven. Children were known to have anxieties about the transfer to the second stage of their school lives; parents feared for the future careers of their sons and daughters; and, in general, the courses provided in schools of differing types were not thought to be comparable. As a solvent of these problems, it was determined that the same standards of staffing, equipment and accommodation should be applied to all schools for older children.'

And he concluded thus :

'Year by year, there is increasing criticism of the examination at the age of eleven. The completion of the high-school programme will provide conditions in which no child has to suffer as a result of that examination. For children to take their education as far as they can is not a favour to be conferred by selection : it is a right.'

Nevertheless, the 11-plus examination was to be retained. Although it was felt that there was much to be said for having comprehensive schools in areas where there were no existing grammar schools and where the population was compact, such as at Bedworth, elsewhere grammar schools should be preserved and the other schools developed beside them. In 1960, however, it was considered that, as the 11-plus did not test technical ability, grammar schools and technical schools had so much in common that the differences were not such as to justify their continued separation. Consequently, technical schools became grammar schools, and technical courses were introduced into all schools.

But the high schools were designed to satisfy the needs of non-selected pupils. They were first introduced in 1957 when six secondary modern schools were given improved staffing and provision for more extended courses, with specialised equipment for such subjects as engineering, horticulture, commercial subjects and pre-nursing studies. The enthusiastic response from children, parents and the Minister of Education was so encouraging that this pilot scheme was expanded in 1958 and by the following year all non-selective schools in the county had become high schools.

A preliminary assessment

Most Warwickshire high schools have therefore been in existence for four years or more and it seems reasonable at this stage to attempt some sort of preliminary assessment of their success. Unfortunately, the publicity that the scheme has inevitably received has sometimes been extravagant. It has, for instance, led some advocates of the more orthodox patterns of secondary education to suggest that it provides the complete answer to the 11-plus dilemma and to make claims that the high schools themselves have never attempted to justify from the beginning. There has been rather too much glib talk about the 'lessening of parental anxieties' and of 11-plus failures no longer being regarded as 'second-raters', when there is little evidence to show that either is true. Clearly, if there is a system which is supposed to select those of highest potential ability, then those not selected must be 'second-raters' whether they like it or not, and parents, quite naturally, will continue to be anxious lest this stigma be attached to their children. In fact, it is attached to 79.5 per cent of the secondary school children in Warwickshire.

In my research, I came across one boy and one girl who had elected to go to a high school rather than a grammar school, and their choice had nothing whatever to do with the education provided. I met six parents who had fought tooth and nail to

get their children transferred from a high school to a grammar school. They had written to newspapers, had seen the County Education Officer, had enlisted the support of a teachers' union, had beseeched their local M.P., had pestered the Ministry, and they had succeeded. They had a good case.

Their non-selected children had been fortunate enough to work their way into two 'grammar' streams, which had been temporarily housed in a high school. In internal examinations, they had always come in the first half of their respective 'grammar' forms. But when the new grammar school opened in 1961, they could not go because they had no 11-plus passport: hence the struggle. Their parents think it was worthwhile. Two of the boys are in the sixth form, one taking 'A' level this year and hoping to go to university; one has left with seven 'O' level passes; and the other three, who are younger, are at present taking 'O' level. They might, of course, have done just as well had they remained at the high school.

A rather interesting sequel to this incident came a year later when I distributed an anonymous questionnaire to the 230 senior pupils of their new grammar school, which required, among other things, the answer to: 'Do you think the 11-plus should be abolished?' 55 boys and 62 girls replied 'yes'; that is, a half of these 11-plus successes condemned the selection that gave them precedence over their former friends at the high school. It would be even more enlightening to know how many parents in the county would like the procedure abolished.

A better deal

What is certain, however, is that since the introduction of high schools into Warwickshire the non-selected pupils have on the whole received a far better deal in the county's education. A large number of good, new schools have been built on attractive sites and adequate provision has been made for the teaching of specialised subjects. Head teachers have been free to develop individual schools along the lines that best suited the requirements of the areas in which they are situated. In general, though not always the case by any means, country schools have tended to specialise in rural science, whilst those in the towns have built up their metalwork and engineering departments. At these schools, there are 26 metalwork rooms equipped with crucible, forges and drills; 14 engineering shops equipped with lathes, sharpeners and welding apparatus; and 11 rooms equipped for both metalwork and engineering.

The capitation allowances for books and stationery have been raised three times in the last

six years, and are about 50 per cent higher than they were before the introduction of high schools, so that they are now the same as for selective schools (each pupil under 15, 50s.; over 15, 90s.; and sixth-formers, 115s.). Although this tends to work in favour of those schools with large sixth forms, viz, the old established grammar schools, it has, nevertheless, brought about a marked improvement in the general provision for the more academic subjects. In addition, libraries have been encouraged with an initial allowance of between £1,500 and £2,000 and an annual grant of £25 for each form of entry.

Staff-pupil ratios

Staff/pupil ratios, too, have improved. In 1957, the overall figure for non-selective schools was 25·3, with the worst affected school as high as 34·0. By the end of 1961, these figures had fallen to 22·2 and 27·0, respectively, while the grammar schools had remained comparatively static at 19·8 and 22·0. This does not mean to say that there are now no classes in Warwickshire high schools with 40 or more pupils and one wonders just how far the introduction of specialist subjects and courses for external examinations has in fact exacerbated this problem. In any event, the apparent improvement has largely been contrived by the employment of 220 part-time teachers, whose services, valuable as they are, are not without their limitations. Clearly, there is a shortage of full-time staff in Warwickshire, and if some children are not to suffer as a result of the high-school scheme, the ratio must be reduced still further.

To some extent improvements have been reflected by the number of non-selected pupils staying on at school after the age of 15. This number has increased dramatically from 230 in 1957 to 3,338 in 1962 and the rise in the general school population does not satisfactorily explain this phenomenon. Undoubtedly, one of the chief reasons why pupils elect to stay on is because they are able to sit for external examinations. The increase of subject-passes in the 'O' and 'A' levels of the G.C.E. has been equally dramatic: 308 at 'O' level and none at 'A' level in 1958; 2,530 at 'O' level and 34 at 'A' level in 1962. Similarly, in other external examinations like those of the R.S.A., U.E.I., the College of Preceptors and the Royal Drawing Society, corresponding success has been achieved. No one can deny that the record is impressive.

On the other hand, one must assess it in the light of what is happening nationally and in other specific parts of the country where progress has perhaps attracted less attention. In a recent article in

Education, for example, the Chief Education Officer of the East Riding makes a useful comparison between high schools in his area and those in Warwickshire. The comparison is not absolutely valid, however, as the East Riding grammar schools cream off only 17·2 per cent as against Warwickshire's 21·5 per cent and the school population is only a third of Warwickshire's. Nevertheless, the comparison of examination results helps to put Warwickshire's success in its right perspective. For 1962, subject-passes were:

	'O' level	'A' level
Warwickshire	2,530	34
East Riding	1,297	74

And the percentages of those pupils staying on in all schools in both districts were:

	Over 15	Over 16	Over 17
Warwickshire	42·6	21·1	10·3
East Riding	47·1	26·9	12·1

Reluctance to change

Not all pupils who stay on in Warwickshire high schools do so with the specific purpose of taking external examinations, nor do all Warwickshire high schools have sixth forms. Some head teachers consider that the interests of their pupils who have secured a good 'O' level certificate are best served if they transfer to the nearest grammar school, where they can have a wider choice of subjects and mix with other pupils of like intention. Some head teachers state categorically that they have not the qualified staff to teach advanced work and even if they had they could not afford the time to let them do so with such small numbers. But most pupils are reluctant to change from one school where their success has given them a certain prestige and confidence to another where their face may be lost in a sea of ability and strangeness. In any case, the grammar schools are not over-anxious to receive them, if only because their own sixth forms are generally bursting at the doors.

At first, the intention had been that all high schools should not only provide extended courses leading up to 'O' level, but should also develop individual specialisations for which they would be well-known within a certain area. Thus there would be free transfer between one high school and another, so as to enable pupils to specialise in whatever group of subjects they chose.

In fact, I have come across no instance where a pupil has changed from one high school to another because he wished to give a particular bias to his studies. A scheme was proposed in Nuneaton, a

densely populated area where it might have worked, but ultimately proved abortive as the heads could reach no common agreement and were reluctant to exchange their own most able scholars for unproven qualities. Likewise, in Leamington Spa, a common examination for 'technical' pupils has eventually been abandoned as a result of unforeseen difficulties over the setting and marking of papers. Consequently, the spirit which pervades the high schools at the moment is one of competition rather than co-operation with one another.

The country districts

Perhaps it is in the country districts where the old all-age village school has been replaced by modern premises that the high school has achieved its greatest success. Although there is not much evidence in the towns that the high schools have become neighbourhood schools, there is some feeling in country areas that they are a centre for the life of the village community. The establishment of youth wings and clubs in connection with various schools has done much to foster this feeling, but as yet they certainly cannot be compared, for example, to the village colleges of Cambridgeshire.

With the provision of new buildings, more staff, better equipment and the opportunity to take external examinations, everything has been done to make the high schools as 'comparable' to the grammar schools as possible. Everything has been done to reassure parents that their children will in no way 'suffer as a result of the 11-plus examination'. The high schools are indeed worthy of the pride that some village communities take in them. But one nagging doubt remains. If they provide all that the grammar schools provide, why is it still necessary to make selections at 11, and again at 13, and again at 16? The greater the academic success achieved by the high schools, the greater the dichotomy becomes incongruous.

Finally, free from extravagant distortion, the good, healthy image of Warwickshire high schools emerges. Most are accommodated in new buildings, with some specialist rooms, where some pupils may be taught by some specialist staff up to, and perhaps beyond, the ordinary level of the G.C.E. Many pupils wear school uniform, do some homework, are well-behaved and take a pride in their school. All undergo a course of fundamental instruction and by the time they leave will have acquired at least a *techne*, or skill, not solely a technical skill in the limited sense, but a skill, whatever it may be, which in town or country life will give them satisfaction (continued on page 29)

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Book Reviews

Primary School Experiments

The Primary School Curriculum, by Robert Dottrens. U.N.E.S.C.O. (1962), 281 pp., 15s.

An Experiment in Education, by Sybil Marshall. Cambridge (1963), 222 pp., 36 plates, 25s.

Communication and Learning in the Primary School, by L. G. W. Sealey and Vivian Gibbon. Blackwell (1962), 184 pp., 15s.

The tradition of considering the education of Infants and of Juniors as quite distinct dies hard. Yet, with the passing of the 1944 Education Act, the first of the three stages of education became officially recognised as comprising the years from five to eleven. The history of each of the sub-stages is so different that it is not surprising that such a distinction should persist, not only among the general public, but also among administrators, teachers and lecturers; indeed, it is not uncommon to meet references (even by workers in the educational field) to the primary stage as if it concerned only the years 7-11. In the three books under review, it is reassuring that the general approach to primary education is treated as applicable to the complete age-span. Mr. Sealey and Miss Gibbon, it is true, divide each chapter dealing with classroom practice under separate headings for Infants and Juniors, and Mrs. Marshall sometimes refers to the youngest, the middle group and the oldest, but neither they nor Professor Dottrens suggest that a change of approach is required at seven years of age.

The unity of the stage is seen to lie, firstly, in its threefold purpose: to arouse and develop certain attitudes towards learning, to teach children how to learn, and to promote thinking and feeling of the highest quality commensurate with the age and experience of the children. Professor Dottrens and Mrs. Marshall are particularly concerned with the first of these: 'The most important thing today is . . . the opening up of the mind, the fostering of

intellectual curiosity, the capacity for wonder, for asking questions, and the will and the ability to find the answers' (Dottrens, p. 24); the 'real function [of the primary school] in the scheme of education . . . is to create interest, spur curiosity, and open doors through which the children may choose to go in the later stages of their growth' (Marshall, p. 66). In all three books, emphasis is laid on the second prong of purpose, Mrs. Marshall using examples and the others explicit statements; and while Mr. Sealey and Miss Gibbon stress that quality of thinking is of prime importance, Mrs. Marshall is seeking after sensitivity in both thought and feeling. And Professor Dottrens puts his finger on the crux of the matter: if these far-reaching purposes are to be attained, time is needed. How right he is: the years from five to eleven are none too many for sound and certain achievement.

Secondly, there is a wholeness in the primary stage in that the conditions necessary to the execution of its aim are basically the same for every age; in the best practice, they depend upon a good understanding of present-day knowledge of child development, educational psychology, and the nature of that which is being learned. On the most important of these conditions, the four authors are agreed: a collaborative pupil-teacher relationship; an arousal of interest leading to effort; plentiful opportunity to explore environment, language and materials; and, as a corollary to the last, provision of worthwhile experiences, of approval and constructive criticism, and of standards which ensure that the best level possible at that moment is reached.

In the past, such conditions have been furnished more commonly for children under seven than for those between seven and eleven but, as the latest report of the Ministry of Education (*Education in 1962*) points out, changes have occurred during recent years in junior education: 'There is evidence of independent, progressive thought and practice in an increasing number of schools.'

That the trend is towards an extension of the conditions already existing in most Infant schools is a promising sign for the eventual emergence of a soundly-based first stage in the educational system. But there are dangers to which Professor Dottrens and Mrs. Marshall draw attention: 'There is no greater danger to the progress of public education than the hiatus which often exists between, on the one hand, the curricula—with the accompanying methodological instructions—and, on the other, the capacity of the teachers to interpret them in the spirit in which they were drawn up' (Dottrens, p. 127). And Mrs. Marshall, listing the attributes of a good teacher, points out the danger of the teacher

(continued from page 28)

and help to qualify them for living in a twentieth century community. In these ways, some Warwickshire high schools are among the best secondary modern schools in the country. More I am not prepared to claim.

abdicated his responsibility if he thinks that seeing that children learn is the same as seeing that the children teach themselves. (p. 25).

Although the three books, as already demonstrated, have much ground in common, each approaches primary education from a different standpoint. Professor Dottrens' undertaking was the most difficult. Commissioned by U.N.E.S.C.O. to produce 'a publication on the primary school curriculum', he has chosen to present 'what seemed to him to be the most typical points of view with regard to current trends in education' rather than to collate and compare practices in various countries. He introduces several tables in which he attempts such comparison but far more valuable to teachers in this country is his analysis of the social and economic factors which any sensible educational system must take into account (Part I, Chapter I); his consideration of the parts played by Child, Teacher and Methods in arriving at a proper use of time during the primary school years (Part III, Chapters III, IV and VI); and his plea that the gap between research and the classroom should be abolished (Part IV, Chapter I). These chapters are likely to appeal most to teachers of prospective teachers but would be useful and thought-provoking to the latter.

Mr. Sealey and Miss Gibbon set themselves no easy task. Taking a stand that communication is the essence of learning—not only as between people and in different media but also between objects and the learner—they have attempted to bring every activity possible in primary schools within their purview. This results in an uneven book, since it is easier to fit some aspects than others into their theme; it also enables them to look at, but with far too little critical comment, the introduction of a foreign language and of teaching machines into the primary school world. The appendices—Sources of Materials and Books to Read—reveal the bias of their interest since mathematics predominates in both; indeed, the book list is most unbalanced. However, the wealth of illustrative description and quotation, so patently straight from the ordinary classroom, should be of great help to the beginner in teaching in getting his bearings and to any established practitioner who welcomes, and can adapt to his own situation, ideas which others have found successful.

Surely there are few teachers, whether prospective or established, who will not respond to Mrs. Marshall's infectious enthusiasm as she recounts her pilgrim's progress towards her celestial city of teaching as a creative art and of education as a vital and vitalising experience for her children. Indeed, the book can be read from many viewpoints and, with

benefit, more than once. It is both autobiographical and sociological; when one has absorbed the story of what is commonly called 'the change-over from formal to activity', one can reflect on the loss to village life with the closure of such a school. It is both an illustrated textbook of some ways of ensuring the seamlessness of the robe of knowledge, and a critical commentary, impregnated with good sense and humour, on education as it often is and as it might be.

Of course, we are not all Mrs. Marshalls nor would she wish us to be: 'Everybody who tries my ideas out,' she writes, 'will arrive at a quite different result, and so they should. By experimenting boldly enough they may discover an altogether new process.' It is the bold and well-considered experimentation, which she exemplifies and urges, which can do most to provide conditions conducive to good learning and thereby, to work towards the realisation of the aims of primary education.

Although the U.K. is not included among Professor Dottrens' list of countries whose 'schools enjoy comparative freedom to draw up curricula themselves', there is no doubt that the freedom exists for those who, like teachers mentioned by Mr. Sealey and Miss Gibbon and like Mrs. Marshall herself, are prepared to use it. Armed with the basic understanding of what learning means, of what children can be and do, and of what it is that they are learning, let experiment in primary education proceed!

JEANETTE B. COLTHAM.

A Broadcast Series

Education Today, The Existing Opportunities. Edited by Edward Blishen; British Broadcasting Corporation (1963), 203 pp., 5s.

The text of this book is based on a series broadcast in the Third Programme earlier this year, and written by Edward Blishen and Brian Groombridge. The aim of the broadcast was to make available 'a straightforward, factual and up-to-date account' of the educational system from nursery school to university and beyond. It is directed mainly at parents, but students and others should find it useful. Many people contributed to the broadcasts and are represented here.

This is an authoritative, if relatively short book; the various topics are dealt with in an imaginative way and the book, in general, has a very positive outlook. It is also very readable.

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A New Journal

Teaching Arithmetic. Vol. 1, No. 1. Pergamon Press (1963), 45 pp. Annual subscription 15s.

This new journal is for primary school teachers of mathematics and will devote itself to discussion of the new ideas that are bringing changes in this field. The first issue contains articles on the Stern material and on an individual number scheme; a pair of stimulating articles of a more general nature by Professor Peter Hilton and Dr. J. B. Biggs; an interview with Mr. L. G. W. Sealey and a regrettably misleading article on subtraction by the journal's editor, Mr. G. Price. There are book reviews and oddments to make up an interesting number.

It should be welcomed. There is a need for this kind of periodical. Only time will show if there is a market.

DAVID WHEELER.

The New Teachers

Education and the Training of Teachers; A plea for the Education of Teachers as persons, by P. Gurrey. Longmans (1963), 160 pp. 13s. 6d.

History, as Professor E. H. Carr reminded us recently, can be more usefully considered as the activity of historians working on data about the past rather than as a reliable collection of neutral 'facts'. This approach can be applied to education too. Professor Gurrey's stimulating book becomes more illuminating when viewed against this background. By stressing the need for teachers to develop as persons, and not merely to build up a store of private knowledge, the author strengthens the essential democratic notion that education depends on educators and not on a corpus of knowledge available to the scholarly.

Although Dr. Gurrey spends much of his book in dealing with many aspects of his 'personalist' view of education, he does stress the need for critical examination of educational ideas and doctrines in the light of real situations. His main concern is obviously literary and philosophical, but the teacher of the future has to be prepared to enlighten children of a scientific and technological age. We need teachers of the next few generations to have both the eye of the poet and the mind of the scientist.

However, this book will be very useful in training colleges for staff and students as a source for group discussions, either to appraise or criticise. Whatever our personal viewpoint, it is a book to weigh and consider, for the next few years are going to produce the patterns of teacher-training for some time to come. In this interregnum we can listen to the very experienced like Dr. Gurrey and profit from it.

ERIC LINFIELD.

Status and Parity

The Secondary Modern School, by William Taylor. Faber & Faber (1963), 254 pp., 32s. 6d.

The term *Secondary Modern School* embraces a very wide diversity from the old senior elementary writ large to schools with sixth forms studying to Advanced Level. The public image is consequently a confused one, though there is general agreement that such schools provide a second-class education.

Not only are there immense differences between modern schools in buildings, curricula, aims and achievements, but there are as wide disagreements as to what a secondary modern school should be, what sort of education it should set out to provide.

Much of the writing about these schools has naturally been subjective and polemical, based on limited experience. There is a need for a comprehensive survey of the secondary modern school based on thorough research and experience on a national scale, and this need Dr. Taylor has satisfied quite admirably.

He begins by discussing the responsibilities of mass secondary education in a changing society, and relates these responsibilities to what actually happens in secondary modern schools. 'During the nineteen-fifties there have occurred fundamental changes in methods of production and industrial and commercial processes, which render concepts of educational provision based on the dichotomy between workshop and profession out of date. These changes make it imperative that education be viewed as a capital investment rather than as a form of charitable or luxury expenditure.' (p. 29).

But though the status of the modern school has improved during the last 15 years, parity of esteem is still only a pious dream, and the parity of conditions promised by the Ministry in 1947 has not been fulfilled. He quotes Vaizey: 'it is likely that the average grammar school child received 170% more per year, in terms of resources, than the average secondary modern child.'

The resultant limitation of educational opportunity restricts modern children, with rare exceptions, to routine semi-skilled or unskilled jobs.

Dr. Taylor goes on to show that the changes in the work of the modern school since 1944 have taken place as a result of 'individual and group decisions by teachers, head teachers, and local administrators, and not as a result of the working out of official policies at a national level.' In fact, the curriculum proposed in the Ministry's pamphlets *The New Secondary Education* and *The Nation's Schools*, if adopted, would have made it impossible for moderns to compete with grammar and technical schools in the occupational field, and would have still further sharpened the differences between these types.

However, social and economic pressures and the recognition by teachers of educational and occupational needs, have virtually put an end to the idealistic child-centred theories of education fostered by the Ministry as a cheap substitute for the real thing. Though the eleven plus examination still acts 'as an agent of occu-

pational as well as educational selection', an increasing number of modern schools every year prepare children for public examinations to secure for them the proper qualification for occupations and social advance.

They have done this in the face of severe disadvantages, the most serious being Ministry disapproval and lack of support, and insufficient staff with inadequate training.

But in spite of significant examination successes, the secondary modern school remains an awkward, unhandy instrument for educating the bulk of the nation's children. Dr. Taylor devotes his last chapter to an examination of its future in the light of the attitude of the Conservative and Labour parties to the structure of secondary education. His final condemnation of the tri-partite system is as balanced, measured, and convincing as the whole book.

The closely-reasoned argument, the careful documentation, and the wide scope of the survey, make *The Secondary Modern School* essential reading for serious teachers: and it will be a valuable reference book for a good many years.

PETER MAUGER.

Soviet Psychology and the Schools

Educational Psychology in the U.S.S.R. Edited with an Introduction by Brian and Joan Simon: translated by Joan Simon. Routledge and Kegan Paul (1963), pp. xi and 283, 40s.

The vigorous development in educational psychology in the Soviet Union fully justifies a book of this kind. Interest in the individual learner, within the teaching-learning situation, is a distinctive characteristic, emphasised elsewhere by Brian Simon (1962), which is reflected in the pages of the present volume. *Part 1* deals with relations between learning and development; it begins very appropriately with a paper by L. S. Vygotski, who sought to lay the foundations of a scientific psychology of the development of speech and thought and whose ideas have exerted a major influence upon contemporary theory and research. The other papers are on education and personality development (Kostiuk), learning and development (Bogoiavlenski and Menchinskaia), intellectual backwardness (Leontiev), and speech (Luria). Several of these writers express a highly critical attitude towards—indeed a rejection of—the methods of psychometric measurement. They emphasise instead their concern with other things, including the study of the learning behaviour of the child within the school curriculum.

This trend continues in *Part 2*, which is devoted to a scholarly review of Soviet researches into learning by two members of the Moscow Institute of Psychology (Bogoiavlenski and Menchinskaia). One aspect noted is that attention has been directed 'not to the general laws governing mastery of scholastic material . . . but to partial laws specific for the mastery of material of a specific content' (p. 108-9). Several contributions of this kind are to be found in *Part 3*, for example, studies of acquisition of the elements of reading (D. B. Elkonin),

of arithmetic (Kalmykova), and of the concepts of physics (Fleshner). One paper on the mastery of general scientific concepts at school by D. N. Natadze represents the research of the very active group of Georgian psychologists, working in the tradition of D. N. Uznadze whose influence has, at times, been overlooked. The last paper, by B. M. Teplov of Moscow, deals with artistic education and certain broader issues including imagination and creative thinking.

It becomes apparent from this symposium, as from the earlier one under the same editorship, that very many of the leading psychologists of the Soviet Union are concerned with educational problems. Soviet education occurs, as Simon points out, 'within what is basically a non-streamed common school system' (vii) and, it must be stressed, within a system which contains 'nothing equivalent to the eleven plus examination' (p. 17). The system itself differs from our own, and Soviet educational psychology is also different in several important respects. In a very helpful 18-page introduction the editors emphasise three of its main features, concern: first, with human learning within the educational context; secondly, with the role of speech in mental development; and thirdly, with developmental studies. Illustrative of these points of emphasis is the paper in which E. A. Fleshner discusses how the child learns and develops mastery of the concepts of physics. Thus, for example, the concept of 'weight' may for a long time give difficulty until the child comes to appreciate that it is not confined only to objects it has weighed on a scales, but is a general property of all bodies. The way in which, through a complex interplay of learning and development, the child learns more abstract notions of other concepts like 'gravity' and 'force', is also discussed by Fleshner. Research interest in the teaching side of the process is further illustrated in Zankov's investigations of the uses of combinations of the verbal and the visual in teaching.

Because Soviet psychology is heavily influenced by Pavlov's work, it is sometimes thought to be akin to the more arid forms of Behaviourism which have impeded psychology elsewhere. It is apparent that this is not the case. Thus, in an interesting paper, Krutetski draws attention to phenomena of mental imagery in connection with difficulties in doing mathematics. He explores the possibilities that differences of mental imagery between those who visualise, and those who verbalise, may account for certain of these difficulties. Krutetski uses the term 'relative incapacity' for mathematics, this itself reflecting a standpoint which seems to be current in Soviet educational psychology. He writes 'absolute incapacity for mathematics . . . does not exist. Every normal pupil, given correct teaching, can more or less successfully master the school course in mathematics'. (p. 214). The argument may hinge on the somewhat question-begging words 'normal', 'correct', and 'more or less': nevertheless this statement, which many British and American psychologists might wish to question, reflects certain characteristics of Soviet thought as represented in this book. We may note the

rejection of psychometric devices (e.g. aptitude tests), research devoted to methods of teaching, and concern with studying the difficulties of the learner and ways of minimising these. The editors are to be congratulated for making available to the English-speaking reader reports of work which, as they say, offers 'much of interest'.

PETER MCKELLAR.

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Science Books for Juniors

Watching the Weather; Below our Feet; Light, Lenses and Colour; Buildings and Bridges, by J. M. Branson from the Starting Science Series. W. & R. Chambers Ltd. (1961), 40 pp., limp 3s. 6d., boards 5s. each.

Beginning Science I, by J. A. Lauwerys. Adapted from the Heath Science Series. Harrap (1962), 128 pp., 10s. 6d. *Science Workbooks*, parts 1-4, by M. E. J. Shewell and R. W. Crossland. Heinemann (1962), 31 pp., 2s. 6d. each. *Stories from Science: 1*, by A. Sutcliffe and A. P. D. Sutcliffe. Cambridge University Press (1962), 141 pp., 7s. 6d.

Vision, by J. Rainwater, *Energy and Power*, by L. S. de Camp, *The Body in Action*, by M. Wilson from The Golden Library of Knowledge. Golden Press, New York (1962), 54 pp., 6s. each.

Working With the Weather, by E. A. Catherall and P. N. Holt from The Working With Series. Bailey Bros. and Swinfen Ltd. (1962), 48 pp., 6s.

Foundations of Science, Book One, by F. F. Glasspool and K. Laybourn. University of London Press (1963), 96 pp., boards 8s. 6d.

The above selection of fifteen books are all designed for use in primary schools to help pupils in their exploration of the environment and to act as time and labour-saving devices for the teachers. They form a representative sample of the flood of recently published material about primary science which may be roughly subdivided into practical books and reading books.

The evaluation of books for use in a comparatively new field in primary education raises important questions of purpose and procedure. There is agreement in broad terms that primary science is unique in the opportunities it provides for observational and experimental experiences as a result of which a particular outlook may develop, an attitude of mind distinguished by its enquiring, methodical and critical nature. There is no agreement about the kinds of scientific experience which are appropriate to particular age-groups of children, or the best age at which certain classroom procedures, which can be called scientific, are aptly introduced.

The selection of topics for inclusion in primary science books is chosen empirically by the authors, the selection being based in many cases on considerable experience of 'what works'. How far there can be, or indeed should be, a progressive development of scientific ideas at the primary stage is a problem which needs to be studied.

The practical books under review are among the best available collections of experiments which act as starting points for discovery. *Foundations of Science, Book One*, is designed for the top classes of junior schools. Written by two of the most experienced workers in the field, the book provides ample encouragement for discussion and writing. The photographs which illustrate many of the experiments are much more effective aids than the large coloured illustrations so often reproduced in primary science books. If the remainder of the series reaches the high standard of the first book, it will form a valuable guide for teachers.

The spirit of enquiry is perhaps made even more clear to the pupils in the series of *Science Workbooks*. Again, the progression of work proposed, particularly in *Friction and Machines (Book 4)*, makes assumptions about the readiness of primary school children to benefit from certain experiences with machines, an assumption which requires thorough investigation before our ideas about the scope of primary science are allowed to harden. *Working With the Weather*, an example from a third series of practical books, is also planned on sound investigatory lines. The coloured illustrations are of doubtful value and make the book rather expensive, while too much is left to the inexperienced class teacher to select appropriate activities from a collection which claims to include experiments suitable for infants, junior and secondary schools.

The science activities of the classroom should serve as a stimulus to outside reading for learning and enjoyment. The reading books under review can be recommended for inclusion in the primary school library though they cover a very wide range of reading difficulty. Teachers are well aware that their pupils are often unable to understand books for two reasons—lack of ability to read at that level and lack of ability to comprehend the underlying ideas described. Attention to the relationship between readability and comprehension tends to be neglected by writers of primary science books with the result that teachers are obliged to select carefully suitable reading material and references for their pupils. The readability of *Beginning Science, Book 1*, adapted from an American series, is suited to 7-year olds but the scientific principles introduced would be incomprehensible to them. Applying the same criteria, the above examples from another well-produced American series, the *Golden Library of Knowledge*, would be more appropriate in a secondary school library, as would *Stories from Science*. The only reading books under review which most children from the top classes of junior schools could read with real understanding are the *Starting Science* series.

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