

FORUM

FOR THE DISCUSSION OF NEW TRENDS IN EDUCATION

Autumn 1971
Volume 14
Number 1

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Forum is published three times a year, in September, January and May. £1 a year or 35p an issue.

Children Using Language

**an approach to English
in the primary school**

Edited by **ANTHONY JONES**

Head of English Department, Newton Park College
of Education, Bath,

and **JEREMY MULFORD**

Director of NATE/Schools Council Project
'Children as Readers'

This symposium of articles by members of the Primary Schools Sub-Committee of the National Association for the Teaching of English—Ian Burton, Winifred Fawcus, Nancy Martin, Connie Rosen, Margaret Spencer—and by the editors, makes contributions to a theory, founded in our understanding of language, which offers a basis for work in the classroom. The matter of the book turns on two models of language offered by James Britton; and throughout, the articles move freely between description of good practice and theoretical consideration, in the belief that each feeds the other. Subjects dealt with are writing, drama, poetry, fiction, environmental studies, and teacher training.

19 919007 0 160 pages, stiff card cover 75p net

OXFORD UNIVERSITY PRESS

Education Department, Oxford

Resources for Learning

The bulk of the articles in this special number are concerned specifically with resources for learning. It is quite natural that this approach has a clear relevance, both to the comprehensive school, and, perhaps more particularly, to the movement towards non-streaming, or more flexible forms of grouping within the school, with which **Forum** has always been concerned.

The reasons are self-evident: non-streaming itself demands new approaches to teaching and learning. Class teaching may still have a place in the new situation, but as soon as grouping is based on new criteria (instead of on the old idea that children of a given IQ range all learn all subjects at the same pace), new techniques of promoting learning are required. And of course the idea that it is the teacher's job to discover and promote the specific abilities and interests of all pupils is closely linked with the idea behind comprehensive education as a whole, hence the promotion of independent learning and discovery is an essential aspect of the liberation of education from outmoded and obsolete forms.

Flexible systems of grouping, the promotion of individual work and responsibility, these and other contemporary educational forms and objectives all point to the need for the more systematic use of a wide variety of resources for learning, whatever the form they may take. The matter is discussed in this issue from a variety of standpoints—Emmeline Garnett describes the work of an experimental area resources centre, Neil Cowell indicates the equipment and organisation required by individual schools, Douglas Holly discusses the preparation of teachers in the use of these techniques, while Anna-

belle Dixon reminds us that for many years the primary schools, and particularly the infant schools, have gained a great deal of experience in the use of these techniques. These and other articles in this issue should help to clarify some of the problems and point out some of the advantages of this approach. There is no doubt, however, that the use of resources, often involving work sheets, individual and group work, raises many practical as well as theoretical questions of great importance. We hope to return to these in a later number.

This issue also contains the second part of the survey on recent trends in examining, the first of which was published in the Spring, together with a report of the **Forum**/Comprehensive Schools Committee's annual conference, this time on the vital issue of the comprehensive school as a neighbourhood school. It contains also a summary of the Editorial Board's evidence to the James Committee.

As for the movement towards comprehensive education, it is perhaps enough to say that, in spite of Mrs Thatcher's idiosyncratic decisions in a number of cases, the pressure to complete the comprehensive reform continues unabated, with many local campaigns in different parts of the country. These campaigns deserve the fullest support. It is quite clear that comprehensive education cannot be established without maintaining consistent pressure at every level, both national and local. And by comprehensive education we mean, as we make clear in our evidence to the James Committee, the merging of **all** local schools, whether grant-aided or maintained, into comprehensive systems. This target is still a long way off, and there is, therefore, no cause to slacken the campaign for genuine comprehensive education.

The Area Resource Centre

Emmeline Garnett

Emmeline Garnett was appointed Director of the unique curriculum resources development project described here in 1968. She is now head and warden of the new Wreake Valley College which opened in August this year—the latest of the Leicestershire Upper Schools which also acts as a Community College.

The Curriculum Resources Development Project was a modest three-year experiment set up in 1968 by Leicester and Leicestershire Education Authorities and Nuffield Resources for Learning.

Its brief was 'to provide the materials for curriculum change', but its small scale (never more than four people on the staff), compared with the size of the area, directed thinking immediately into a very profitable channel. At first of necessity, then more and more by conviction, we rejected the idea of a Father Christmas organisation which would centralise research and production. Instead we explored the possibilities of a central scaffolding which would support and magnify the efforts of local teachers. We concentrated on the points of breakdown in individual and school-based resource production, and tried out in various ways the kinds of management which would result in a more profitable sharing of ideas and expertise.

The experiment itself was no more than a feasibility study; but unfortunately the end of it coincided with a financial squeeze, and plans to establish an Area Resource Centre as a viable unit have had to be abandoned. We believe however that this is only a postponement. The use of classroom resources continues to develop and it is becoming very clear that the individual school is not the ideal base for all such work. There are seriously wasteful problems of overlap, of returns for investment in time, money and teacher-energy; there are also an increasing number of resource-producing activities which absolutely need co-operation—for instance anything which needs printing, packaging and presentation of a reasonably professional standard; proper co-operation with a local radio station; profitable liaison with television producers and publishers; use of local resources in a way which offers thorough coverage and yet avoids saturation; and so on.

What are 'classroom resources'?

On the Humanities side of the curriculum at least the scope is now fairly clear. Although books are still and no doubt always will be the most important single resource for learning, the traditional textbook, developing a subject linearly, and carrying tram-lines in its

very format, gives teachers increasing dissatisfaction. As they use traditional methods of instruction more sparingly, they want, instead of textbooks, printed information of a kind which will foster the techniques of research and evidence-sifting even among slow readers. They want prepared materials with a high visual content—film, slides, film strip, film loop, micro-film photographs, video-tape. They want materials which allow young students to seek evidence from original sources, or at least from facsimiles of originals: maps, documents, newspaper files, archives. They want materials with a direct impact on the ear—records, tapes, radio programmes. They want evidence of objects, people, and places, and if these are not of a size and transportability to bring directly into schools, they want the evidence to lose as little as possible in transit—people on tape, for instance, rather than transferred to print. Alternatively they want the information and know-how to allow them to take their young students direct to the mountain if the mountain cannot be brought in. And they want all this in duplication and diversity enough for students to work some part of the time as individuals and in small groups, with some element of choice and self-programming.

In our early thinking two salient points appeared which have remained central. First: the chief resource of an area is its teachers. No unit which tried to do all its own work could make any significant provision of curriculum materials without growing to an impossible size and losing contact. Much of the Project's effort, therefore, was directed towards its 5,000 teachers, providing and familiarising them with a machinery which would maximise their collaborative efforts. Secondly: one area is distinguished from others by those practical and personal resources which form the material for 'environmental study'; it follows that a good part of the Project's work has come under this heading, though by no means all.

If we were to establish ourselves as a piece of central machinery, there were many lines of exploration to pursue, and they could not all be pursued under one heading; this was one good reason for trying out many small ploys, each of which was designed to find answers

to fresh questions. A second good reason was that an area project has to make friends or it fails before it has begun; we set in motion many little bandwagons so that a lot of people would be attracted to one or other of them.

There is no room to list all the questions we were asking, but they grouped themselves under the following headings among others:—

The organisation needed to supply curriculum materials to schools: on loan, free, or at cost price.

The setting up and management of curriculum groups in all stages of dependence on a central agency.

The making of materials by a single researcher (inside or outside the Project) or by groups.

The costing in time and money of good resource materials; and its converse: the scotching of the tacit assumption that these materials need no greater investment than the good teacher's natural use of his free time.

The working of the unsatisfactory law that the real work is usually done by a few even though many expect to participate in the result.

The problem of passing on the inspirational core of one teacher's work to others without laying an intolerable burden on him; and the related problem of passing on to a second 'generation' of teachers the confidence in new material gained initially by those who worked on its preparation.

The problems of successful liaison with outside bodies.

The conflicting demands of publicity, communication, management, and actual development of materials.

We may briefly describe some of the small projects undertaken in our three years, to show the different approaches to these kinds of question.

MATHS TOMORROW is a complete course of modern maths for use in the third year of secondary schools, written and produced by a group of teachers who found that two years of the BBC's 'Maths Today' left them with no follow-on material. Its nine units, consisting of packets of study sheets and worksheets, supplemented by a teachers' handbook, has been used in about fourteen schools.

CREATION was an unstructured 'package' of loan materials which relied heavily on liaison with the Leicestershire County Library. It contained about two hundred and fifty items—books, slides, tapes, films and

a teachers' handbook. This collection, based on six past or primitive cultures, and designed to allow exploration into the question 'How has man thought of the beginning of things?', was researched and arranged by teams of teachers from six secondary schools. It has been used by seventeen schools, with all ages from primary to sixth form, and several of them have now built it into their curriculum.

MINES, MINING AND MINERS is another very varied package of largely local materials—tapes, slides, extracts from newspapers and archives, maps, records, posters, mineral specimens. It was researched and arranged entirely by one member of the Project staff and carefully costed in time and money. Like **CREATION**, the boxes have never been idle since their completion, and it has so far been used in twelve schools, with the waiting list stretching into 1972.

LAW AND ORDER IN LEICESTERSHIRE is an Archive Teaching Unit initially produced outside the Project (in a local College of Education) and brought to us for editing, production and distribution. It is still in the experimental stage, on loan to four schools, but it was hoped to make it the basis of an experiment in limited commercial publication, by subscription from interested schools.

UNIT 31 consisted of a wide variety of 'backing materials' originally designed and produced by teacher groups to supplement sixteen programmes of local interest broadcast by BBC Radio Leicester. The original collection, taken by thirty schools at cost price of the materials, consisted of maps, slide sets, teacher's handbook, and an assortment of materials from local agencies—pamphlets from the Leicester Chamber of Commerce, City and County Youth Employment, Information Bureau, Ministry of Employment and Productivity, etc. All these agencies are apt to run out of supplies at inconvenient moments, so that we could not repeat the original packages, but the tapes of the programmes, and the slide sets, which were the most important components, are now under continuous production for sale to schools.

TAPES and SLIDE SETS, as described in the previous paragraph, are in continuous demand. The series of local slide sets, in particular, is constantly being enlarged. The Project standardised production and packaging in sets of twelve with a notebook included, and there seems no end to the possibilities. There have been several interesting developments: **ELEPHANTS** is a set produced in conjunction with Twycross Zoo as support material for visits to the zoo;

TONY AND HIS FRIENDS is a series of eight packets for use mainly with immigrant children, in conjunction with another Radio Leicester series of programmes: a group of language teachers has taken up the idea and has now produced their first four sets of slides called **PROJECT FRANCE**. Production of slide sets is now well into the second thousand.

CURRICULUM NOTEBOOKS have been produced in a series, six so far, as an attempt to pass on from teacher to teacher accounts of exciting work done in the classroom. Some have been written by the teachers themselves; some synthesised by the Project staff or an outside editor.

PEOPLE AT WORK is the first of a series of sets of large black and white photographs, for display or discussion, accompanied by small versions of the same picture for individual creative work. These have so far mainly been used by primary schools.

RADIO TAPE CLUB is a clearing-house activity which enables schools which have missed their accustomed taping of a BBC Schools Radio Programme to be put in touch with other schools which may be able to fill the gap for them.

The Project's information service, magazine, and curriculum notebooks have been sent free of charge into all the five hundred schools in the area. Schools which have bought or borrowed other materials, or made use of the Radio Tape Club service, now amount to about half the primary schools, and a good ninety per cent of the secondary.

It will be noticed from this necessarily brief account that the Project did not undertake what many people first think of in connection with a Resources Centre—the setting up of a library of unitary materials from which a teacher could draw whenever he found a gap in his own provision. This is because, nice though it sounds, we have not up to date found even a notional solution to what we call the Micawber effect—imbalance between input and output. We do not know, and we have not found anybody else who knows, how to ensure that what the teacher wants is there when he wants it, and we fear that even were such a monumental establishment practicable in terms of space, staff, time and money, redundant items would always outweigh the useful ones to a wildly uneconomic degree. It must in any case await a computerised retrieval system.

What the Curriculum Resources Development Project has done, in a modest way, is to establish the reality of consumer demand, and outline some of the areas in which teacher co-operation and centralised management can make the most of individual talents, enthusiasms and expertise. This is a sketch of what an Area Resource Centre might be and do. It is now time for an Authority somewhere to establish the thing itself.

Area Resources Centre: An Experiment is shortly to be published by Edward Arnold.

Resources in the High School

Neil Cowell

Neil Cowell is head of the liberal studies department of Manor High School, Leicestershire. His department provides an integrated humanities course taught by a team of teachers to first and second year children. The course utilises the resources approach, which is discussed here from the standpoint of the individual school.

The extent to which resources will be used in teaching will obviously vary widely from the single classroom where the textbook and supplementary filmstrip are the primary resources used, to the learning area where a hundred children may be involved with a team of teachers in work from multi-media resources packages.

We are all of us aware of the situation which prevails in the former circumstance and I will therefore concern myself with the latter which is a work style making heavy demands upon resources.

A multi-media resources package could comprise three different factual books dealing with the subject, a facsimile of a relevant newspaper article, printed literary extracts, a Jackdaw pack, a cassetted tape recording of part of a BBC schools programme, a filmstrip or slide set with hand viewer, together with a number of work sheets asking for reading for information, opinion, drawing, discussion, written recording, tape recording and so on. Such a package (see Appendix) could provide work for a group of six children for the equivalent of two or more complete school days spread over two to three weeks.

The package could be one of a number dealing with different aspects of the same theme, hence there is a need to amass a substantial volume and variety of resource materials to permit working in this way as the norm rather than only for the occasional afternoon.

The resources of a teacher, team of teachers or a school as a whole are of necessity a response to curriculum demands, but the hardware of resources machinery must be made available in the school as a whole in a sufficient quantity initially if a resources approach to learning is to develop. Additions to this initial central stock will be in response to staff, child and curriculum demand but unless a sufficient quantity of the right hardware is available, expansion into a resources based approach to learning will be retarded.

A prerequisite for a resources based approach to learning is the availability of a suitable selection of reprographic machinery for the production of information sheets, work books, pictures, etc. The humble banda is an obvious starting point, particularly if linked with a heat copying device for the production of spirit masters, but whilst the banda does allow the use of colour, its runs are short and some copies are invariably faint, also a crisp and businesslike presentation is not easily achieved.

At the opposite extreme is the sophisticated offset-litho machine permitting a very professional standard

of production but at a substantial cost.

Perhaps a mid course utilising a Roneo ink duplicator linked with an electronic stencil cutter and some provision for photo copying the odd pages from books or pamphlets is more appropriate to the middle sized school with its limited means.

Where such a reprographic unit exists it is most desirable that all staff should be aware of the possibilities and limitations of the machinery. Someone, perhaps a Head of Resources, needs to be available for consultation on matters of production and his rôle might well involve the supervision of resources production by ancillaries whose availability is vital if the teacher is not to get bogged down in unproductive handle turning.

The demand for audio-visual equipment is necessarily appreciably greater when children are using resources formerly used only by the teacher, but the use made of each item of equipment is also greater, so better justifying the outlay of capital involved. Thinking in terms of a school of five hundred a minimum initial provision would seem to be two to three each of the following: 35 mm slide projectors, filmstrip projectors, tape recorders (mains), portable tape recorders (battery or mains), hand slide viewers. This would provide basic equipment, although the need for additional items would soon make itself felt.

Whatever equipment the school does possess must be adequately maintained and a sufficient stock of spare bulbs and batteries held so that all equipment is normally in working order at all times; an essential condition since the work of the school rapidly becomes dependent on its hardware.

It is generally observed by people who work in this way that equipment is handled well by children who rapidly develop facility in its use.

Audio-visual software may be made available to children either in multi-media packs as already mentioned, or perhaps through a mass of different colourful workcards directing pupils to a central store of resource materials. Indeed, children may arrive at these materials in a variety of other ways, they could simply be told by their teacher of material available to help in their work, or they may uncover it themselves from the catalogue of the resources centre which gives access to resources of various media.

Having acquired software, they then need the appropriate hardware and a place in which to use it. Finding such a place can present problems if we think in terms

of the soundproof booth or the room with blackouts; however, to listen to a tape, playback machines with headphones or induction loops will answer the problem in a sophisticated manner, whilst the remote cloak-room or corridor may often provide a more practical alternative. To project a picture to study or draw from, a very acceptable result can be achieved by utilising the classroom wall or a propped up piece of card from four to five feet away. For viewing small numbers of slides a hand viewer is a cheap and convenient piece of apparatus especially if it can be stored with the slides—the type using reflected light can be used anywhere and no battery problem is involved.

The prime source of filmstrip and slide materials must be the commercial companies. In some cases a filmstrip which is particularly useful will justify the purchase of several copies, and, after all, this will cost little more than a similar number of books which, in some instances, would be largely bought for their illustrations. The strip may be used as it stands if the sequence of its frames is important and all will be used; this is, however, often not the case and it may be best to cut the filmstrip into frames and mount these in glass and plastic slides. In this form, although more expensive, a filmstrip is virtually child-proof, can be edited, and different frames can also be used at the same time by different children. There is also the advantage that frames from different strips can be combined to illustrate themes remote from their original context.

Apart from the commercial product, the teacher can often produce a useful slide set using a simple 35 mm camera during preliminary visits to places such as the local market or canal lock, which the children will visit as part of their work. Alternatively, a group of children studying man's need for shelter may visit a building site and make a set of slides illustrating stages in house building. They may complete their work by the addition of a tape recorded commentary which can be synchronised with the slides. The end product of such work can become part of the school's stock of resources.

Often a variety of excellent visual material already exists in the school, but in a variety of formats: wall charts, children's drawings, pamphlets and books. To gather these together each time they are required is a cumbersome task, but photographed and used as a slide set the material is at once readily available in a standard format easily stored and presentable to a

group of any size. Again such work can occasionally be undertaken to advantage by one of two children.

Filmstrip or slides offer an alternative or additional source of information to the book for groups of three or four children and provide a change of activity. Questions may be asked about the slides as a whole or attention focused on a particular frame; the viewing may lead to drawings, writing of detailed descriptions of a scene and so on.

Recorded sound, usually on tape, lends itself to similar uses. The major source of recorded material is the many BBC schools broadcasts and some reliable arrangement for systematic recording needs to be made so that the chore does not fall on the teacher. Frequently only one programme from the term's broadcasts in a series will be wanted, but as much of the material is destined for group use a couple of the pupils' pamphlets will suffice and the cost kept within bounds. Materials may also be recorded to advantage by the staff and, whilst this is time consuming, great variety can be achieved from a lively rendering of a tale to the more straightforward reading of a modern translation of the Biblical account of the Creation.

To present recorded material to children in a durable and instantly usable form, material can be re-recorded from a master-tape on to any number of cassettes, titles and instructions can be added, or the tape edited. Perhaps more important, however, than the use of taped resource material, is the use of the tape recorder actively by children either to record their work and views, or the views of others—perhaps persons of note in the community. Such interviews, if planned and carefully conducted, can become a permanent school resource.

In a resources approach to learning, audio-visual material must be an integral part of the work; however, the basic resource must remain the book—not a set of texts for the whole class but rather as broad a selection of titles appropriate to the topic in hand as possible. It costs much the same to furnish thirty children with five copies of each of six titles as it does to give all thirty the same book. In some instances, of course, the class set is the most useful quantity, but where groups of half a dozen are working from a tray containing various resource materials, six different titles will be there to use, some more relevant to particular parts of the work than others. The child will have to develop the ability to find and select the material he wishes to use; as not all of the group will be in-

volved in book-based learning at one time, he may have the choice of several books plus additional titles from the resource centre not included in his package. The important thing is that over, say, half a term, he will not be presented with a single book around which all of his work will be based but will, supposing he confines his attentions to books provided in his resources packages, come into contact with at least a dozen different books.

In addition to books, other materials which form particularly valuable resources are Jackdaw packs with their information sheets and facsimiles of original documents, or Trailblazer packs from Hamish Hamilton, around which a larger resources package can be built.

Other materials which may be included under the resources umbrella include wall charts, pamphlets, colour supplements and news-cuttings. Also excellent materials are made available through various curriculum development projects and can be modified to suit the needs of a particular school.

Much resource material is available on loan, including cine film, books and objects from local museums and library services. Visiting specialists can be invited to school and visits made to farms, museums and the other resources of the wider local environment.

All of this mass of potential resource material must be systematically collected and catalogued and the problems of storage and retrieval must be tackled, if the vast accumulation of materials is to be put to effective use. So often materials are laboriously collected and produced to be used once and then forgotten, or else materials prepared by one teacher are not made available to colleagues. All this is wasteful of time, effort and also of the important but as it were 'hidden' resource of a particular teacher's talents, interests and expertise.

To capitalise on resources it is therefore imperative that a departmental record or, much better, a central school resources bank, be established with an efficient system of cross-referencing appropriate to the materials available and the way in which they are used.

APPENDIX

Contents of Example Multi-Media Package

As part of an eight-week theme on 'Law and Order' various multi-media work packs could be produced on topics such as Police, Prisons, Demonstrations, Justice, etc, besides depending upon topical events, children's interest, staff references and to some extent, upon resources available.

A reasonably representative multi-media pack with the title Justice could, for example, contain the following items:

Books

Magna Carta by C W Hodges (OUP)

Magna Carta by J C Holt

The Law Breakers by R Jenkins (Connexions/Penguin)

Crime & Society by B Whitaker (Blond)

Law & Order by B Ashley (Batsford)

The Law by Papas (OUP)

Discovering the Law by J Derriman (ULP)

Tapes

The Magna Carta—BBC Schools Broadcast

The Magna Carta—an edited cassette version of above

Interview with a local JP on cassette

Slide Set

A History of Justice—Common Ground IB.8b2.

Selected slides only (filmstrip cut and mounted in glass/plastic slide form)

Other Materials

Hanimex hand slide viewer

7 Worksheets

Chart showing appeals procedure Magistrates Court to House of Lords (photocopy)

Newspaper Article (via electronic stencil cutter)—'English Girl tells of six weeks in Swiss Jail'

Sunday Times Supplement May 1969 'The Law Courts'

Sunday Times Supplement June 1971 'King John signs Barons' Charter'

Preparing Teachers for the Resource-based Learning Approaches

Douglas Holly

Douglas Holly is lecturer in education at the University of Leicester; his **Society, Schools and Humanity** was reviewed in the last number. He tackles in this article a problem with which he is professionally concerned—the preparation of students for resource based learning.

In two earlier articles¹ I argued that comprehensive schools attempting to lead *all* their pupils towards a common goal of self-realisation and autonomy will need to develop techniques of 'guided heurism'. This is because only a minority of pupils can be expected to have a 'natural' facility for independent learning: most will need careful induction into self-direction, beginning in the first year.

The resources approach which provides the theme for this issue of FORUM is one of the ways in which guidance can be provided in a fairly self-regulating manner. The structure which a teacher can build into his or her materials in the form of selection, presentation and choice of assignment and related activity is an important means of helping pupils to learn how various types of problems can be dealt with successfully. It is self-regulating because, once the learner has tackled a few such structured enquiries, he can begin to appreciate how a mathematician or a sociologist or a physicist working on his own might go about answering questions. The learner, in other words, gains confidence in his own abilities through sharing well-defined perspectives which characterise 'disciplines'.

This is not a negation of pupil-freedom and autonomy but, on the contrary, the condition of it. Freedom is only meaningful in so far as it allows men to gain control of their environment and come to terms with one another. Anarchy in learning, as anywhere else, is an enslavement to confusion. For this reason primary methods which place emphasis on personal development need to give place gradually in the secondary school to methods which emphasise the social nature of learning by inducting the learner into the ways men in society have tried to make sense of the world. As I have argued elsewhere,² a common secondary education carries with it the assumption of a common potential for human self-realisation—ie, the realisation of truly human development in terms of

autonomy, awareness and ability to take a democratic part in society. This will require, for many working-class and not a few allegedly middle-class pupils, a dramatic increase in confidence in their ability to cope: which brings us back to 'structured heurism'.

Those intending to teach in secondary schools have hitherto perceived their job in terms of the conventional subjects: the needs of the pupil have taken second place to the assumed needs of a 'curriculum', which the pupil will 'follow'. Very seldom in their training have these assumptions been examined except in their own terms. The prospective physics teacher or history specialist will probably have examined various strategies of teaching from the point of view of how useful they are in getting pupils to grasp this or that point in physics or history. This subject-ideology still pervades our secondary schools and is therefore assumed in the colleges and university departments too. But the sort of skills required of teachers using a resources approach, however 'structured', are not likely to be fully developed in such a context.

The point about 'structured heurism' is that it does not assume in the learner a ready-made attitude towards learning: every secondary pupil is not a little mathematician or anthropologist. The hope of the teacher devising structured materials is that pupils will be led towards an understanding of some more systematic perspective. Resources approaches do not, typically, set out to 'teach history' or 'sociology' or whatever: they seek to induce in the learner a growing awareness of historical, sociological or other modes of understanding. There is a profound difference, going well beyond the form of words: one which exposes the unreality of the 'heuristic/didactic' debate. Since the teacher has to exercise skill in structuring materials he needs didactic ability in a much more subtle sense than when he is simply engaged in direct exposition. In a class lesson the skilled teacher can gauge con-

sumer reaction immediately. Response is good or bad and the teacher varies his pace and complexity accordingly. Feed-back from materials, on the other hand, is delayed and the materials themselves relatively inflexible. For this reason materials alone, without exposition, are likely to be ineffective. One of the skills required by the resources approach, in fact, lies in achieving a nice balance between independent working, group discussion and direct exposition by the teacher. But, in addition, there needs to be a built-in variability in the materials themselves, in the sense that (a) the form of the materials is variable, using audio-visual elements alongside linguistic; (b) the materials can be handled by pupils at varying stages of aptitude; (c) linguistic levels are catered for by the use of relatively simple instructions, aural forms of instructions (on tape) or alternative assignments which lead to the same basic learning but allow for variations in pace.

The whole emphasis in the training of teachers for resources and independent learning approaches, therefore, must be upon the needs of the learner, just as it has always been in training primary teachers. With this difference: 'the needs of the learner' in a secondary school context are to be interpreted as having an intrinsic relationship with pre-determined modes of knowing and understanding. The teacher has to start, in other words, from two places at once: the learner and the structured experience of learning. In terms of training this involves a clear priority being given to the aims and assumptions of comprehensive education, including the relation between aims and methods. Probably this implies 'method' work based on learning-*context* rather than learning-*content*. Certain broad areas of study would seem to define this as well as the circumstances of mixed-ability grouping: perhaps 'general science', 'mathematics', 'humanities/social science', 'creative/artistic studies'. On the other hand, the prospective 'resources' teacher needs to have considered the precise articulation of his or her subject specialisation within broad areas of learning. For this it is necessary to make a very careful examination of the organising principles, concept-structures and areas of sensitivity involved freed of the specific load of subject 'content' commonly borne by the study of subjects at college or undergraduate level.

The amount of organised tutorial guidance required by trainee teachers in this aspect varies. My experience has been that those whose own command of their

subject is certain need little or no formal discussion about the way in which it can be 'integrated': I can often learn from their ingenuity. It is precisely those by whom the higher education system has been less than just who need most help in understanding their contribution to secondary schools in the new circumstances. For these it is probable that formal seminars and workshop groups in designing conceptually-structured materials are a high priority so that they can come to grips at last with their own specialisms under the revealing pressure of having to justify them practically in relation to general educational aims.

Whether in terms of broad areas of study or more specific disciplines the prospective 'resources' teacher needs practice during training in certain related skills:

- (a) Working with a team in designing and presenting materials;
- (b) The physical production of sound and visual materials;
- (c) 'Structuring' materials by designing appropriate assignments and activities.
- (d) 'Grading' materials so as to make them accessible to a range of developed abilities;
- (e) The evaluation of materials as used by pupils.

Obviously much of what has been said here about the needs of teachers in initial training holds equally for the needs of serving teachers. There is a considerable need for courses and study groups involving teachers and tutors from the institutes and schools of education. These are probably best organised on a workshop basis, with co-operative production of resource materials and the careful consideration of the conceptual and other aspects involved. In one way, of course, the problem is lessened since experience in any mode of teaching presumably contains a common element of insight into pupils' likely reactions: the distance between the teacher and his own days as a pupil and a student of some subject should reduce dependence on the formal assumptions of that subject as taught at college or university. Conservely, however, years of accepting the 'subject ideology' as enshrined in examination papers can serve to reinforce uncritical attitudes and unanalysed expectations.

To clear one's mind of a clutter of conventional content in these circumstances can take some doing. Discussion with university subject specialists acquainted with the new problems and objectives of teachers can be of immense value here, as American experience has shown. Jerome Bruner's work with the Harvard Edu-

cational Development Centre, for instance, produced resources material in social science, the conceptual rigour of which is matched by its appropriateness for use with a wide range of ten and eleven year old pupils.³ This was done by involving university anthropologists and psychologists alongside primary and secondary school teachers in the design and trial of material. The only fault, in fact, with American curriculum projects has been that they are typically initiated by academics. By contrast, co-operation in this country can arise directly out of the needs of teachers as mediated by our institute and school of education structure.

One final point. Resources learning is no panacea: it is *one* element in a variety of strategies required by comprehensive education. Direct pupil-teacher relationships remain fundamental and the training of teachers needs to reflect this more than ever. An approach to training which implies that teachers can henceforth be

regarded as 'resources technologists' would be disastrous. The need is for *more* not *less* humane relations, relations based on the assumption that a teacher's job is to help pupils in their all-round human self-realisation not to teach some remote subject, still less to become manipulators of externalised materials. While distant attitudes may have been appropriate for a system which alienated education from the learner, they are quite inappropriate to a system which seeks to transcend this. Resources materials are a means, never an end in themselves.

References

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2. *Society, Schools and Humanity*, MacGibbon & Kee, 1971.
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Resources, Teachers and Designers

Jack Walton

Jack Walton reports on a national conference where the problems involved in the resources approach were fully ventilated.

The style of teaching and the pattern of teacher organisation and management has been changing in English schools during the last 10 years in response to a variety of pressures—not least of which are the curriculum modifications and innovations that will now always be with us. Reorganisation has, of course, tended to give additional impulse to changes in the curriculum. Shipman compares curriculum change with transplant surgery; often it has the same results—tissue rejection. In the same paper he gives examples of this tissue rejection often caused by the teacher's disinclination or inability to change his style of teaching to fit in with the new demands of the curriculum project.¹

1. Walton, J (Ed). *Curriculum Organisation & Design*. Ward Lock Educational (to be published 1971).

If we look at the classroom organisation of both primary and secondary schools some 15 years ago I think that in most cases fairly normal teaching arrangements would be noticeable. All desks would face the teacher and the teacher would tend to depend on preceptual teaching using a blackboard and textbooks. Particularly in primary schools, but also in some secondary schools this pattern is changing. Less preceptual teaching is taking place and various groups of children may be observed working on various topics. As a result of this the textbook recedes somewhat in importance and more flexible materials are required. In this more open situation the demands upon the teacher are far greater and it seems hardly likely that he, or she, is going to be able to provide for the children all the necessary resources that are required.

It was for this reason that the Exeter University Institute of Education applied for a grant developing on a regional basis a Resources Centre for a period of three years. Associated with the project are some 30 schools and four Teachers' Centres. These are all able to draw upon the Centre for information, advice and resources. In this Centre the resources are interpreted as including all those materials which are required to enrich the learning process—materials rather than machines. Included within this definition are prepared tapes, films, slides, photographs, photostat copies, documents, illustrations and models. The Centre started, possessing none of these items. All existing stocks have been produced as a result of meeting the requests of teachers. A teacher in one of the associated schools formulates a request and the task of the Centre is to attempt to meet this request in the terms of the appropriate resource. The Centre is considerably helped in the design aspect of this work by art students in their final year who are attached to the Centre as part of their course. Whenever possible these students are brought into contact with the teacher who makes the request; when this is not done the end product is never quite satisfactory. Also linked with a number of the associated schools are advisers whose role it is, not only to act as agents of the Centre in the school, but to help the teachers to clarify the curriculum objectives for which the resources are required.

In the Easter of this year Exeter Resources Centre, in association with other people working in the same or similar fields, organised a national conference aiming to bring together both representatives from the projects' pilot schools and also other people concerned with resources in different parts of the country. The Conference remit was as follows: to be concerned with an examination of the main problems which are associated with the organisation, production and use of software for curriculum development; a consideration of providing organisations such as the schools resources centre and the regional resources centre; to provide opportunities for both producers and users of resources to meet to discuss common problems.

In the course of the conference a number of papers were read by teachers, administrators, librarians and researchers. It is important, perhaps, to convey some sense of the involvement of the 120 people at the conference in this whole problem of resource provision. Librarians, art students, teachers and administrators jostled with each other, threw ideas backwards and forwards, often disagreeing violently, but taken alto-

gether as a conference, conveyed some sense of both urgency and excitement. The problems posed were not artificial or theoretical. They were all practically related either to the problems in the classroom or to the problems of administration within the Centre. Teachers wanted a quick reliable service that satisfied their immediate needs. They described the frustration of being unable to develop their work satisfactorily in schools as a result of the lack of materials. Artists or designers emphasised the importance of getting teachers to discuss their requirements rather than work in isolation. People from colleges and universities emphasised the importance of stating clearly the objectives of curriculum exercises. Librarians pressed the importance of developing satisfactory systems of classification and retrieval. Whilst there may have been disagreement on particulars there was no disagreement about the need for developing an appropriate resources service.

There was indeed a strong feeling that whenever possible teachers should be associated in some way with resource provision. The provision of resources was regarded first and foremost as a curriculum problem and those people who were concerned with the design and operation of a school curriculum were the most appropriate people to be involved in the policy discussions which decided the character of the resources to be created. Policy-making meetings of this kind, however, need not necessarily be totally composed of teachers. Other people—artists, photographers, university and college lecturers, if available—could give an added richness to such meetings. It was emphasised that if the artists and associated people were to be involved in the production side of the exercise, they must also be involved at an early stage in the policy discussion, otherwise they may incorrectly interpret the wishes of the teachers.

The implication of these suggestions was that there were two major roles in the creation of resources—policy making involving decisions about methodology and curriculum objects, and design which covers the 'making' side. The former, it seems, was mainly the teacher's responsibility and the latter that of the artist/photographer.

Two main problems emerged:

- (1) Did these suggestions imply that resource provision was all to be school-based?
- (2) Where was the ancillary help—artists, photographers—to be found?

Generally, as the conference progressed there devel-

oped a consensus of opinion relating to the first query—that the seventies would or should see a development of a network of resources centres. Some schools would—perhaps because of size or other special circumstance—be able to develop their own centres. Others may be less fortunate. Nevertheless no school is an island, and strong arguments were expressed in favour of area resources centres—directly associated with quite a large number of primary and rather less secondary schools. These would be the centres for local curriculum discussion and also for the manufacture of materials which could not be provided on a school basis. A large number of these area resource centres could be linked to regional centres which would undertake the most difficult tasks and possibly house a curriculum/resource research unit. It may be that these regional centres could be based at University Schools of Education.

Staffing for resources was discussed at some length and it would perhaps be tedious to report too much detail on the suggestions for the different types of centres. There was general agreement, however, that as library skills were involved in some considerable degree a librarian would perhaps be the most appropriate person to be director of a resource centre in, for example, a large secondary school—the resources centre possibly being a natural development of the school library. In the case of other larger Centres, a librarian's advice should certainly be sought and he should perhaps, as in the case of the Exeter Centre, serve as co-director. Additional help, dependent on the size of the Centre, would need to be recruited from professionally trained artists and technicians. Courses such as that held at the Plymouth College of Art now produce men and women appropriately trained for this design aspect of the work. It should be noted that whilst there was considerable emphasis on the artists' contribution, skilled and inventive technicians were regarded as equally necessary. However, the volume of work will always be greater than can be undertaken by the paid staff which most centres will be able to afford to employ. The recent experience of the Exeter Resources Centre suggests that if final-year art students in Colleges of Art or College of Education students with Art as their main subject could work for short periods of time in a Resource Centre as a part of their training they would gain useful experience and the Centres would gain extra and essential help.

Whatever emphasis was given to the practicalities of administering resource centres in schools, teachers'

centres or schools of education, whatever time was spent on staffing or equipment discussion, time and time again the discussions returned to the curriculum in the school and acceptable ways of servicing it. It is appropriate that the National Council of Educational Technology gave its support to the conference. In the words of its Director, Geoffrey Hubbard, Educational Technology 'springs from the new look at the changing situation which is being taken by teachers all over the country and from awkward questions they are asking about curriculum and the true objectives of education; its techniques aim at integrating the use of the whole range of available resources with an efficiently managed and controlled learning process'. Looking back at the conference it would appear that most members were considering the development of resources in this controlled light. The growth of Resources Centres must not be yet another bandwagon, but a planned addition to the educational scene to enable teachers to act more efficiently in the ever-changing classroom.

James Committee Evidence (continued from page 28)

7. The schools should be brought into closer partnership with training institutions in the supervision of teaching practice through teacher-tutor and similar systems. The necessary finance should be provided, and this should be administered by Area Training Organisations.
8. The probationary year should be made an integral part of teacher preparation.
9. Much greater resources must be devoted to in-service education; regular secondment of teachers for this purpose should be provided for.
10. The staff-student ratio in Colleges and University departments should approximate to that of Universities generally.
11. A staff college should be established to act as a centre for both theoretical and practical studies in teacher education.
12. The transition to comprehensive education makes necessary a basic restructuring of courses, and of the administrative system which underlies them.
13. A higher proportion of the national resources than at present must be devoted to teacher education and preparation.

A Primary School Approach to Resources

Annabelle Dixon

It is often forgotten that primary schools have led the way in the use of resources for learning. Here Annabelle Dixon, who teaches at Minet Infant School, Hayes, and is a member of the Editorial Board, discusses the experience of infant schools.

The educational hierarchy being what it is, the notion that primary schools might be able to offer some practical advice to secondary schools is tantamount to *lèse-majesté* amongst the more conservative. And yet in the field of resource acquisition, organisation and management, into which secondary schools are relative newcomers, many primary schools have considerable experience.

Such experience would not necessarily be entirely relevant to an older age range, in the same way that infant-school procedure would differ, in certain respects, from the junior school. In fact, simply examining the range and availability of resources provided for the different age-groups could give one a very telling illustration as to the way in which schools regard the educational potential of their pupils.

A certain pattern is observable: for instance, a major part of infant school resources are within the child's individual classroom; as the children grow in self-reliance and responsibility and also need recourse to material that is often scarce and/or expensive, so resources are to be found as much outside the classroom, as in communally shared resource 'centres'. Economically it makes sense and probably educationally too; I would venture though, having worked with both infants and juniors, that disappointments stem from the human and organisational snags, rather than anything else and that these should not be under-estimated. For instance, if you find that everybody (except oneself of course) always leaves the slide projector jammed or neglects to tell all and sundry when the light's burnt out again, a simple case of negative reinforcement may be observed; the frequency with which one uses that particular resource will fall away quite noticeably.

Thus, apart from the practical problem of actually acquiring the resources, one has those hardy perennials of management, maintenance, communication and distribution—problems which are common to any school above a certain size, regardless of age-group, that has some kind of resources centre. In primary and junior schools, depending on whether their numbers justify such a post or posts, special responsibility allowances are payable to those looking after such activities as games, music or school libraries. Any resources that don't conveniently fit into these categories, eg, cooking equipment, projectors, pictures, art materials, etc, are either vaguely felt to be the domain of the deputy head, allocated in a somewhat arbitrary manner to one or other of those already with a special responsibility for something else or left to the individual teachers using the materials to see that they are returned in the same condition and order that they found them. Ideally, and possibly within the small school, this last solution operates quite successfully. In large urban schools with a good number of teaching-practice students and a fairly high staff turnover, the results of such a policy hardly need describing, although it's by no means uncommon.

It would be interesting to find out from various schools any answers to this problem that they have found to be successful: using ancillary staff? attempting to get more special responsibility allowances? At any rate, it would seem more satisfactory to have one person who has particular responsibility—and who was not only given the time to do the job properly (maintaining one's own class resources, especially in an infant school, takes up most of one's available spare time) but also paid accordingly. Money may be more

forthcoming in secondary and grammar schools for such posts, but if children have seen good equipment neglected and deteriorate in their primary schools, they're not going to be so likely to co-operate in the careful maintenance of more complicated expensive equipment, when they get to their senior schools.

The problem of communication and distribution run alongside each other; their mis-management doing nothing to enhance staff relationships, eg, 'Well, who has got the microscope? /tape-recorder? /rain-gauge?' or 'But I've got them all ready for cooking and now all the things have gone! She said she was going to do her's tomorrow', etc, etc. In smaller schools, much of what is here described may be inapplicable by reason of frequency and ease of contact, but without some kind of effective check in large schools where teachers may never see inside another's classroom from one end of the term to the next, resource materials melt away into the individual rooms in a manner marvellous to behold. However, sometimes this is because teachers just haven't got around to returning materials and are keeping things in their classes they no longer need, and sometimes because, like musical instruments, for instance, it is proving so popular that such equipment should now be regarded as part of the individual classroom's resources, and to return it to a central store would be to waste it, in educational terms. But it is at this point one meets the problem of distribution: who is to have which resources, why, and when? This is particularly difficult in a primary or infant school, where, on the whole, teachers are responsible for all 'subjects' and although they may have a general idea of what topics may be covered in a particular term, cannot predict the interests of individual children or the spontaneous interest of a class in a quite unexpected field.

One possible solution is for an elaborate kind of timetable and a 'signing-out' book for the various resources. Resource needs could be discussed at staff meetings and allocation made accordingly. In some schools this might well be a feasible course of action but it does tend to ignore the snags thrown up by human nature. There's always going to be someone away, on a course, or sick, etc, so the timetable has to be altered again and again into something, eventually, of unbelievable complexity, and when the pencil's gone from beside the book, won't there be *someone* who will forget to put down his initials?

Alternatively, one can attempt to decentralise as far

as possible: this may sound reactionary heresy in the blossoming days of 'resource centres', 'team-teaching', and the like, but reports from several secondary schools attempting to work in a resource-centred way, have reported an unexpected and disappointing response from both teachers and pupils alike. Yet the primary school experience has shown how much children gain from using the widest possible range of resources (despite the enumerated difficulties). One might accept the conclusion that it was the age difference at work, but that isn't, on inspection, the only variable to alter. What *has* altered, I would suggest, is the manner of the resource distribution, as noted at the beginning. Even in the junior schools, much of the resource material is still to be found in the individual classroom, and although there may be a central area, eg, for animals, music, reference library, etc, the remainder is under the personal choice and care of the class teacher, who uses it mainly in his or her own room; the nature of the work expected from the children will also be largely controlled by the individual teacher. Where the resources are of their own making, collecting or purchase, the personal interest and perhaps one might add, motivation in their successful use, by teachers, is at a distinctly higher level. Compare this with a situation where the resources are not only chosen and cared for by an external agency, however helpful that might be, but ready-made assignment cards 'tell' the children what to do, and one has effectively reduced the teacher's rôle to little more than a minding and correcting agent. Is it thus surprising when a low level of involvement is the result and that this communicates itself to the children? The resources may be, in themselves, quite excellent, and way above that which a junior, let alone an infant school, could afford, but the problem in this case is not so much one of management and distribution but of preventing an impersonal centralisation from reducing the effectiveness of the school's total resources, both human and otherwise.

It might be said, therefore, that the more a primary school's resources were decentralised, the more effectively they could be used. Given this decentralisation, however, and the problems of maintenance, communication and distribution would largely resolve themselves, any ancillary help visiting the classes in turn to give assistance. This would not mean the elimination of other permanent working areas within the school which provided further facilities, eg, library, music, etc, and movement in and around the school to different work

'sites' need not be prevented by the fact that the chief resource area was the child's own classroom. I do think it would mean that the resources were better and more frequently used and also better looked after. Not only would individual teachers be more directly accountable (and have a vested interest in) their care and use but they would be able to be more flexible in their utilisation and offer the children a far wider immediate range of resources to work with and from. One also finds that children have much more care of things if they feel it belongs to 'their' class or 'their' teacher. It isn't just a matter of recognising psychological principles to realise that they understand what is meant by personal property, but that material belonging to a large organisation doesn't appear to be anybody's and is treated in a much more casual manner.

If one does try to be self-sufficient in those resource areas where it's possible and desirable, one has to admit to the snags of acquisition and storage, and it's in the attempted resolution to these problems that one turns to the experience of the infant schools. To take the last-named first, without adequate storage-space one has to rely on an assembly of clearly-labelled boxes, folders, sacks, etc, and a long-suffering caretaker—this may make classrooms look like crowded attics on occasion, but what educational principle upholds that the greatest learning goes on in the bleakest environments?

Since many a long year, infant schools have realised the need for resources other than textbooks. To the pioneering infant schools, the lack of money was not an insurmountable problem and their enterprising zeal demonstrated the uses to which the unwanted trivia of an industrial society could be put to use; Nature was never left unraided either and bark, stones, twigs, bones, shells and feathers, etc, were and are put to many uses. Faced with the prospect that it may be several years or even more before an infant classroom could be called reasonably equipped, using much of the annual allowance (even apart from the basic essentials and replacements), and knowing that to work really successfully, an integrated day, which must be amongst the most rewarding forms of teaching, needs complete and full provision, infant teachers have had to turn collectors. They must, in fact, be the

only people walking down Oxford Street who look as enviously at the bundles of interesting boxes and material outside the shops as at the dresses inside; to suffer the embarrassments of having carrier bags full of used toilet rolls and bottle-tops fall from their grasp on crowded buses, or having to explain lightly away to the interested observer why their wellington boots are full of sea-pebbles.

However, it is quite remarkable what can be collected and the sources from which they can be obtained: jumble sales, factory off-cuts, attic turn-outs, woodyards, sales-of-work, demolitions, wallpaper shops, supermarkets, drapers—all have 'junk' at some time or another. And once one has the co-operation of the parents and children in collecting resources, one taps a very rich supply of materials. It all takes time and, it must be admitted, can cost a little money here and there. LEAs seem very reluctant to increase the amount of 'floating' money to schools although it would be of considerable use in this respect, but perhaps their accounts can't swallow such items as '10p for old, unusable wireless set, infants for the use of, and/or dismantling of'. It is the experience of having, readily available, as many and as varied resources as possible that prompts me to the suggestion that decentralising resources in the primary school might be more generally useful.

The advantages, then, of acquiring one's own resources have been touched upon and an additional point to bear in mind is that one can then spend previous funds on such things as *would* be difficult to collect for oneself, eg, paints, books, paper, pencils, etc. However, one can get so into the habit of adapting, begging and making do, that one overlooks the fact that one is illustrating an allocation of resources on a national scale, ie, that infant schools have not been given a fair share of the available funds, and have to publicly admit they need additional aid by having to resort to the means described above, in order to do their job properly. This is not to say that the primary school's sterling virtues of frugality and ingenuity should be either abandoned, or that they shouldn't be imitated, but for all that secondary schools could, with advantage, look to their means of acquiring and handling resources.

The Neighbourhood School

A Report of the Comprehensive Schools Committee/Forum conference held at the University of London Union on 8th May, 1971.

Roy Waters

Roy Waters is District Inspector to the ILEA and a member of the **Forum** Editorial Board.

A problem which was never quite resolved faced this year's CSC/Forum Conference from the start. The subject was: 'The Comprehensive School as a Neighbourhood School' and the problem was how to define the neighbourhood school. Jack Walton of the Exeter Institute of Education, in introducing the morning session, suggested that we should think of it as a secondary school which took all the children from the catchment area in which it was situated. It became clear later that some members of the conference would have wanted to add a proviso that the catchment area would need to be carefully drawn to throw up a social cross-section, while for others on the other hand homogeneity of class was essential. Those exchanges during the discussion from the floor which centred on this difference of view were extremely productive; one sensed that new insights were being developed during the course of the debate.

The shape of the conference proved highly effective: each session opened with a lecture followed by ample time for discussion. The two lectures were relevant and nicely contrasting—in the morning a warmly committed head talked in practical detail about his own school and its relation to the community; in the afternoon a director of research gave a lively account of his project embellished with provocative asides. Both came across powerfully as interesting characters.

Anthony Bullivant, headmaster of Earl Marshall School, Sheffield, outlined the Sheffield comprehensive set-up. They have a three-tier system of 5-8, 8-12 and 12-18 schools, except that of the 31 top tier schools, 18 take 12-16 only, sending their pupils on to their linked 12-18 schools for sixth form work. As far as possible children go to the nearest school, parental objections to the supposed status of a school not being accepted as a reason for varying this regulation. Generally speaking a social mix is achieved because the city it-

self is mixed. However in some cases, including Earl Marshall, this is not so. Situated in a depressed area with Sheffield's highest immigrant secondary intake (12%), Mr Bullivant's school has an unusual degree of social homogeneity. He quoted a comprehensive school head as writing that the down-town school without a social mix was not viable. He disagreed. The old down-town secondary moderns may have failed, in spite of the devotion of many teachers, because they had no hope, no resources, no appropriate exam objective and because the 13-plus transfer to the unfairly favoured selective schools robbed them of their well-motivated pupils. None of these factors need apply to the comprehensive. In any case, bussing would be necessary to achieve a mix in large down-town areas and this is disorienting, tiring and destructive of home-school relationships. Any attempt to provide an ability mix leads to an emphasis on testing, grading and classifying which perpetuates attitudes towards children which should by now be rejected. Schools should seek to develop their own character and to generate success for their own local children.

Sheffield LEA came in for some praise during the morning. A minimum of Group 8 has been set for all secondary schools whatever their unit total; all have their own vigorous Governors, including representatives of staff and parents; all are encouraged to work closely with their feeding schools, visiting and exchanging teaching staff, governors/managers, etc. Positive discrimination in the form of additional resources is applied to less favoured schools and generous new buildings are planned, in consultation with teachers, to replace old ones. While the quality of the teaching staff is still the most important element in establishing a successful school, the quantity of support given to down-town areas in Sheffield seems to be sufficient to avoid the acute sense of second-class citizenship asso-

ciated with the secondary modern.

Having explained why he thought that the down-town neighbourhood comprehensive was a viable proposition, Mr Bullivant outlined his own internal strategy for such a school. Some of his points may be summarised as follows:

—The school must be genuinely the centre of the community, the pupils going out to offer services (to play groups, old people, etc) and to stimulate a community spirit which will seek to improve the local environment as well as welcoming the community, especially parents, into the school. The school must be aware of local feelings and ideas and take them into account.

—The educational structure must be flexible with, for example, no streaming and with exams serving the purposes of the children (which will mean mainly Mode III). Pupils will need a choice of subjects. The staff structure needs to be de-centralised.

—At the same time the respect of the community must be won. Anthony Bullivant retains uniform, homework, prizes, senior student privileges, rewards and punishments.

—The social structure for the children must be in natural groupings, probably with registration groups based on friendship groups formed in the feeding schools. Pastoral care will be of paramount importance, though the inevitability of frequent failure may have to be accepted. Vocational guidance and, moral, social and health education will play a more important role than has previously been considered necessary. Some of this will involve residential experience.

Mr Bullivant concluded on an inspirational note. If schools exist only to train workers and select leaders then the old system which classified children by school and stream was adequate. If our objectives today are more humane, then all children (including the ESN for whom there need be no separate schools) must be welcomed, cared for, encouraged and challenged.

Opening the discussion J R I Sharp, ex-HMI, formerly head of Egremont, now of Bicester, applauded what he called a dynamic and hopeful view of a school in a difficult area. He hoped we had outgrown the spirit of grammar school emulation prevalent in the fifties which led to the demand: 'you must give us some of the good ones'. At Egremont, though the intake is socially mixed, the school is situated in a depressed area and is fully a part of its neighbourhood with a public right of way through the site and with

community provision (including library, swimming bath, FE and youth facilities) all under the direction of the school's head.

At this point contrary views began to be heard. The conference's main protagonist of a mixed intake turned out to be F H Pedley, an Education Officer himself from Rochdale. He argued bluntly that social engineering would be necessary if we were to achieve the fundamental objectives of the comprehensive system. In spite of what Anthony Bullivant had said, he felt that the down-town comprehensive had no more chance of success than the secondary modern. Positive discrimination would not prevent some schools standing higher than others in the middle-class pecking order. If we are to achieve social integration we must organise for a social mix in the schools. This will benefit the children of all classes. Dr Elizabeth Halsall from Hull agreed, quoting Marsden and Jackson's finding that schools where there were some middle class children achieved higher overall standards. A Hertfordshire headmaster referred to the argument that, if middle-class parents sought out the ex-grammar comprehensive, it was up to the ex-modern one to win them over. How, he asked—by touting for customers? Or by imposing undue pressure for exam success to win prestige? At least in the initial stages of a new comprehensive system it was necessary for the authority to structure the intake. But how do you do this, asked a speaker from Newham, when you have a very large down-town area? Alternatively, if you go for positive discrimination, how do you achieve this when you cannot even recruit specialist teachers in some subjects for such schools?

Nonetheless, the Bullivant line seemed to win most support. Cyril Poster, formerly of Lawrence Weston, Bristol, felt that the need for a school to have a real and intimate relationship with its natural neighbourhood outweighed all other considerations. The school must identify with its community and seek to meet the community's needs. Mr Poster suggested a committee of street wardens to ensure a network of grass-roots contact. Applause greeted his insistence that schools should not be nervous of the public. There was considerable applause also for an ILEA infant head who voiced the fundamentalist faith of many present when she asked if, in arguing for the need for a social mix, some speakers were identifying intelligence with the middle class.

In summing up Anthony Bullivant returned to this and to the pre-judging involved in any system which

tried to ration children according to class or ability. All these issues, he concluded, were essentially political, and teachers must be prepared to be involved in politics.

After lunch Alderman Tom Ponsonby of the ILEA introduced Eric Midwinter, director of the EPA project in Liverpool and co-director of ACE, who spoke about the work he is engaged in.

There is a lot of talk, he said, about society changing, but we still have the rich and the poor. There may be some uniformity in the possession of cars, clothes and television sets, but there is essentially no equality. We rarely find the professional's son becoming an unskilled worker. The child living in an EPA area is likely to have a deprived home and a deprived school—he is double-cross'd with adversity. Moreover, parcelling children out to achieve a mix in schools adds a geographical inconvenience to this. Since, in reality, most people live out their lives in the same environment (though not necessarily in the same place) we should educate them to deal with this, not to keep them down but to make them conscious of the need for constructive discontent. For them we need the neighbourhood school.

Midwinter's strategies for comprehensive education were similar to Bullivant's, though with differences of emphasis. He suggested that the schools should not be big since the large school draws from several neighbourhoods, not one, and the time-table becomes harder to manipulate, while smaller neighbourhood units can be grouped, supported by shared resources and central sixth forms. However, the schools need to be truly comprehensive: that is, unstreamed, with a common foundation course for all pupils in the first three years. Complicated sets of options confuse the issue to no real purpose. More flexible spaces and teaching methods will be necessary, though new methods will not make bad education good. The content of the curriculum needs reform (even the skill of reading is not an end in itself). The necessary re-thinking needs to be drawn from and fed back into the community.

In Liverpool secondary schools have provided service to the community by converting a bus for use as a mobile pre-school centre; by producing a guide to the district; by giving performances in works canteens, etc. They can benefit from the community through work experience, through financial assistance from industry and from the widening scope for social interaction. It is unfortunate that primary schools often

have better community contacts than secondary though it is of greater importance to the older pupil. Eric Midwinter feared that community education might be the only alternative to complete social breakdown.

In discussion the notion of a curriculum centred on the local community was questioned—would not this be too restricting? Jack Walton suggested that too much thinking in this area was warm-hearted but muddled. However, the community should be the starting point. Michael Armstrong from Countesthorpe, Leicestershire's progressive new comprehensive, wondered how well-equipped we were to carry our pupils' work on from the initial creative experience so that a sustained learning activity might take place. To do this, he thought, teachers would probably need to know much more about each individual pupil, which would be impossible under the present specialist teacher system.

The preparation of teachers was raised by Mrs Averach, a teacher at London's best-known unstreamed comprehensive, Vauxhall Manor. They were not equipped to teach in unstreamed classes and twilight areas. They must go on courses, replied Midwinter and Bullivant felt that the schools themselves needed to play a part in this training, particularly since, if each school is to serve its own distinct neighbourhood, we will need a different training for each school. To the suggestion that teachers should themselves live in their school's neighbourhood, Midwinter said that this would only be useful if they played an active role in the local community.

Caroline Benn's summing-up was a valuable concluding contribution. Though we were all agreed on the importance of links between home, neighbourhood and school, there had been disagreement in detail and there were also issues which had not been raised at all, such as the neighbourhood school which takes all children because no other is available, with its consequent isolation and lack of stimulation.

The main discussion had centred around the problems of ghetto schools and these problems would exist whether we have a comprehensive system or not. The question here was whether comprehensive schools could help, and both main speakers had given some positive answers to this.

The speakers came from areas with different systems for organising the intake of their comprehensive schools. It was important that all systems should be kept under close evaluatory scrutiny. The fact was that where there was a truly comprehensive system the

Comprehensive Pioneer

Robin Pedley

Sir Godfrey Cretney, who died in May this year, was a leading member of that remarkable group of pioneer heads who gave comprehensive schools such an assured and impressive start during the 1950s.

In 1954, Brian Simon and I were visiting all the comprehensive schools we could find, and on one of these tours of exploration I flew to the Isle of Man. Walking through the narrow, grey-white streets of the little port of Castletown, I turned left into a non-descript area of ex-Navy huts; that is, into Castle Rushen High School, and at the same time into a relationship with an inspiring headmaster which I have always treasured.

Castle Rushen was at that time, to me, the realisation of an idea. It gave substance to my dream of what a rural comprehensive school ought to be like. It was not startlingly radical in any way, but it was rare in having the quality of unstinted care for *all* pupils; in the assumption that the school was at the heart of local life, a life in which adults and children joined together naturally, with no formal barriers; and in having a head whose outlook and daily life were wholly committed, as a matter of course, to realising these aims in terms of the daily experience of his community. Children, staff, parents, and indeed all who lived in the area, held him in regard as an unpretentious but very capable leader, one whose many virtues were rooted in compassion towards his fellows, and particularly towards any boys and girls who were unhappy and deprived.

Later, Godfrey left his beloved Island, with no little

reluctance, and brought those same qualities to the task of building a new comprehensive school at Tettenhall, near Wolverhampton. In more demanding surroundings it was not in his nature to withhold full commitment of everything he had to give; and such was his success that he was able to breathe something of the spirit of Castle Rushen into a suburb of the Black Country.

He was a member of Mr Crosland's Consultative Committee on research into comprehensive education from its inception in 1965, and his wise, realistic counsel was much valued by his colleagues there; he would not let the researchers lose sight of the fact that our abiding concern must be with children, teachers and schools. It was entirely appropriate that he should be the first comprehensive school head to be honoured with a knighthood.

In the end his generous humanity drained his strength, and quite quickly he slipped away. His quiet, strong, reassuring influence is remembered with gratitude by people of all ages. One of his close colleagues described him as 'a man who turned enemies into friends', and he certainly made a significant contribution to the widespread acceptance of comprehensive education by people who had previously opposed it.

For myself, in my Dorset home, I think of him in terms of Marty South's words at the grave of Giles Winterborne, simple words which say all that matters in the end about human life: 'You was a good man. and did good things.'

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schools would naturally become neighbourhood schools. Agitation about parental choice was a symptom of a bad system with unequal schools. Mrs Benn ended the conference on a note of perceptive good sense. A social mix is a good thing if it arises naturally, but in the nature of things the pupils of any normal comprehensive school will be predominantly working-class since that will be the nature of any large neighbourhood. The mix will always be unequal.

During the course of the day a number of unsolved problems and unresolved contradictions had been aired. Partly because of the buoyant realism of the main speakers and partly from the sense of devoted concern evident throughout the discussion, this was ultimately an optimistic conference. The Comprehensive Schools Committee is publishing the two main contributions—by Anthony Bullivant and Eric Midwinter.

Recent Trends in Examining

Part 2

Jim Eggleston and Derek Holford

The first part of this article, which is concerned with the extent to which examining techniques have changed during the last decade, was published in the Spring, 1971, number of **Forum**. Here the authors look back to the Beloe report of 1960, and analyse changes across the examining boards in both CSE and GCE.

Inadequacies of the traditional examining pattern

To gain a perspective view of the examining techniques used in CSE and GCE examinations and to discover the extent to which these have changed during the last decade it is pertinent to look back initially to the publication of the Beloe report in 1960. This suggested the need for a more co-ordinated system of secondary school examinations, introduced in 1965-6 as CSE; and by criticising selected features of current examining strategies it highlighted the need for a new model of examining. The principal demand made of pupils in GCE examinations of 1960 was of providing answers in continuous prose, supplementing these where necessary by diagrams and calculations. Variety was provided occasionally by the inclusion of short-answer questions taking a minority of the marks, in language examinations by awarding a small proportion of marks for oral skills, and in science and craft subjects through externally assessed practical examinations.

Examinations of this traditional GCE pattern have three potential defects—the syllabus content, the pupil's behaviour and his performance levels are all sampled inadequately. If only a small proportion of the time spent studying a subject is devoted to assessment, the sample of facts and concepts taken from the syllabus for examination purposes is necessarily

restricted. As a result a difference in emphasis between a teacher and an examiner may lead to pupil failure. It is not surprising therefore that many teachers equate examining objectives, insofar as they can be determined from a syllabus and past examination papers, with teaching objectives; and that some pupils ignore their teacher's advice and revise only parts of a syllabus effectively, concentrating on topics which seem to have a content more examinable than others as indicated by previous years' papers. Their subsequent performance levels may reflect neither their ability nor commitment and this introduces a considerable chance element into assessment.

It is reasonable to expect a syllabus to contain unambiguous statements of the behaviours a candidate will be expected to display and that the examination questions will sample all the behaviours exhibited during a course thought to be relevant to attainment. The abilities required to score high marks in providing answers in continuous prose are predominantly those of the selective recall of facts and the organisation and communication of an answer in the required form. These are undoubtedly important in helping to test what a candidate knows but they do not test what he is capable of doing with his knowledge at the end of perhaps five years of training. Examinations which rely on assessing a limited range of intellectual skills benefit a pupil who can memorise a well-ordered set of notes and present these as his answers and handicap one who has worked hard and prepared himself thoroughly

but is unable to communicate his ideas fluently in prose.

A further problem which may arise from a lack of precision in defining expected behaviours is mentioned frequently in examiners' reports. Candidates often fail to answer questions in the required depth, sometimes providing too much information, more often too little. This is surely to be expected when the precise nature of the behaviours desired may be stated explicitly neither in the question nor the syllabus. The availability of a choice of questions also tends to increase unreliability in sampling behaviour. If, for example, a choice of five from eight questions is provided, fifty-six combinations of answers are possible. When a choice of questions is offered, pupils who have followed a course based on a common syllabus may eventually sit examinations which differ in content and, more important, in the complexity and range of the cognitive skills sampled.

However, the major defect of conventional examining lies in the inefficient sampling of performance levels, the assumption being that small samples taken in a short series of examinations at the end of a course are representative of performance during the course and attainment at the end of it. It seems much more likely that performance varies from time to time and with variations of context. Also little is known of the influence of non-academic factors such as the degree of psychological stress resulting from parental pressure and this adds to the weight of criticism against one-shot examinations.

The required features of a new examining model

The measurement of attainment by conventional examinations is limited by the design of the test instrument used and by its restricted application. Grading decisions are taken on evidence provided by a small sample of content, behaviour and performance and since small samples are inherently more variable than large ones, large errors in reliability may occur. For an assessment procedure to be effective it must adequately sample the whole of a syllabus and measure the extent to which candidates can successfully apply previously defined intellectual and manipulative skills, sampling these sufficiently often to take account of variations of performance in terms of time and topic. Given these circumstances it would then be reasonable to expect an examining system which made more precise demands

of pupils and which related these demands more closely to the desired outcome of the course they had followed. Methods by which this might be achieved are widely recognised. First is the need to sample more effectively the content prescribed in syllabuses by asking more questions in a given time, a more satisfactory alternative than increasing the time spent on examining. Answers would necessarily be shorter and as short answers also tend to increase reliability in examining, the use of objective test items* requiring unambiguous answers has much to commend it as a means of sampling syllabus content more thoroughly.

Objective tests, particularly those including a proportion of items in a multiple-choice format, would probably also be more effective than free-response questions in sampling a wider range of intellectual skills. For a syllabus should not merely supply a detailed account of the knowledge component of a subject but should describe the higher intellectual abilities which the active study of a subject requires and this should be reflected in examinations by a greater variety of demands made in which the testing of knowledge and comprehension play a lesser part. The remaining problem in sampling a wide range of behaviours adequately is the potential risk of a loss in reliability if a choice of questions is provided. This is little affected by attempts to make the questions selected by examinees more comparable by grouping those with a related content or demanding a prescribed level of performance in a particular paper before an overall pass is awarded. If a paper contains questions which sample different skills or different combinations of skills, a choice of questions should not be provided.

The only satisfactory way of sampling variations in performance levels is to assess pupils on more occasions, not necessarily by formal examinations. An increase in the number of papers set within an examination or sections within a paper would help to increase the variety of contexts from which performance is sampled, but a more realistic proposal for sampling over a long period is to use intermittent or continuous assessment procedures initially based on test materials

* Objective test items are questions in which candidates are provided with alternative responses and are required to select from these the one they consider to be the most appropriate. Such questions are objectively marked in that the marker is not involved in any subjective appraisal of the answers offered.

set by external examiners but preferably carried out by teachers under a board's supervision and moderation. Emphasis should be placed upon assessment of practical and intellectual skills rather than mastery of content and to this end the syllabus must contain precise statements of the abilities expected to be demonstrated. Teachers would necessarily become more involved in the assessment of their pupils and more aware of the objectives of their teaching. Later, as teachers become increasingly expert at making demands on pupils consistent with agreed objectives and hence acquiring evidence on which attainment measures may be based, the role of the Regional Board becomes primarily that of moderation. When systems for continuous assessment defined in terms of objectives are used the choice of content can be the teacher's and need not be restricted by time or examination syllabus, and since the assessors are in a position to observe the examinees at work over a long period, skills and aptitudes can be included which are not so readily amenable to testing in end-of-course examinations. Intermittent assessment, while making more specific demands on a teacher, still provides much more freedom for him to select course content than when he has to cover an externally imposed syllabus.

Although it may not be thought desirable or be part of the purpose of external examinations, society lays heavy stress in reaching decisions about careers on their predictive value and this implies that the scores obtained should correlate well with later measures of attainment. To achieve predictive validity two kinds of reliability must be attained, firstly equivalence between markers and secondly high correlation between the demands made on candidates from one examination to another. In the traditional type of examination both measures of reliability are at risk, but this risk is reduced if the methods previously suggested are implemented—the inclusion of different types of objective test items, an increase in the number of questions asked (with a corresponding reduction in the ambiguity of demand and length of the answers required), a diminution in the choice of questions available to candidates, and more generally by any steps which ensure that the intellectual demands made of candidates are consistent and are consistently weighted from one paper to the next.

When examination objectives are defined in terms of the abilities which candidates are expected to demonstrate, test instruments can be selected which enable a high content validity to be achieved. Attempts to im-

prove validity are likely to result in an increase in the diversity of demands made in questions and it follows that potentially the best means of achieving a high validity is through a reduction in the weighting given to free-response questions coupled with the introduction of objective test items and structured questions requiring short answers. Answers in continuous prose still have a part to play, for their omission would mean that key abilities such as the ability to produce a written communication would remain untested. If the role of free-response questions is clearly defined in terms of the intellectual demands they can most effectively make, such questions can make a restricted but invaluable contribution to examinations.

It was possible then, when assessing the potential of new examining techniques in the early 1960s to envisage in CSE an opportunity to introduce a new model of examining. A wide range of test and assessment techniques could be used, each fulfilling the function for which it was best suited and giving overall a more precise measure of a candidate's attainment.

The implementation of new forms of assessment

Information supplied to us recently by CSE and GCE Boards* shows the extent to which they have reacted to the potential of novel examining methods such as teacher-based assessment. Table I contains data related to the 1966 and 1970 examinations for six CSE Boards (labelled A to G). It shows, as percentages, the marks awarded for each type of assessment procedure used by these Boards in six subjects and also the number of syllabuses examined in each subject. In 1966 and 1970 for example, Board F had one chemistry syllabus and in the examinations based on this 60 per cent of the marks were awarded for questions requiring short answers (3 lines or under) and 40 per cent for free-response questions. Table II contains similar information provided by four GCE Boards (J to M). Here a few cases arose where a Board uses a modified form of one or more of the assessment categories suggested and consequently seven mark distributions total less than 100 per cent.

Looking first at the spread of marks among the different types of assessment, all 42 distributions shown for 1966 in Table I include a proportion of marks for

* The authors are grateful to the Secretaries of these Boards for providing this information.

Table I

The percentage of marks allocated for each type of Mode I assessment employed, and numbers of syllabuses offered by six examining boards at CSE level

SUBJECT		CHEMISTRY						ENGLISH						FRENCH					
BOARD		A	B	C	E	F	G	A	B	C	E	F	G	A	B	C	E	F	G
No. of syllabuses examined	1966 1970	1	1	1	2	1	2	2	1	2	3	1	1	1	1	1	2	1	1
Objective Test items	1966 1970	25	30	20 30			0 25					10		5	13				
Short-answer questions	1966 1970	22	25	40 50	35 40	50	60	25	— 25	20		10	20 17	10 9	13	15	30	11	15
Free-response questions	1966 1970	23	35 25	10 0	35 40	30	40	50	— 50	60	100	60	10	50 42	70 66	67	35 30	25	21
Oral examination	1966 1970									20		40	80 (80) ^b	20 25	20 25	10	20 25	40	55
Practical work	1966 1970	30 ^a	(10) ^b 10		0 (20) ^a ^b		25 ^a 0	— 25 ^a											
Course work	1966 1970			(30) (20)	(30) (20)	(20) (20) ^a		(25) ^a 0								(30)			
Project work	1966 1970	(30) ^a	0 (10)					(25) ^a 0	— (25) ^a				(10) (16)						

SUBJECT		HISTORY						MATHEMATICS						METALWORK					
BOARD		A	B	C	E	F	G	A	B	C	E	F	G	A	B	C	E	F	G
No. of syllabuses examined	1966 1970	5	5 4	2	28 19	11	3	1 2	1	1 1[1]	2 2[1]	1	1 2	1	1	1	2	1	1
Objective test items	1966 1970		10	15				30	25	30									
Short-answer questions	1966 1970		30		20	30	60		25		50	— 40	— 60	60	65	9	10	15	10 17
Free-response questions	1966 1970	100	60	45	80	70	40	75	70	50	45	50	— 60	— 40	40	35	21	20	15
Oral examination	1966 1970																20		
Practical work	1966 1970													15	40		(40) (33)	(20) 0	50
Course work	1966 1970						(25)			(25)				(45)	(30)	25	(40) (33)	(40) (45)	(25)
Project work	1966 1970			40 (40) ^b										(10)		45	0 (35)		

a=optional alternative

b=teacher or externally assessed alternatives

()=teacher assessed

[]=additional syllabus related to curriculum development

Note: CSE Boards are represented by the same letters as in the previous article. Two additional Boards, D and H, did not provide mark distributions.

free-response questions showing clearly that the most consistent demand made in the new CSE examinations was still for answers in prose form. Nevertheless, since questions requiring short answers complement these in 35 distributions, providing up to 65 per cent of the marks (mathematics—Board G), the importance given previously to long written answers had decreased and the move towards objectivity had clearly begun. The most noticeable example of this trend occurs in chemistry where Boards A, B, C (and later G) include objective test items in their papers. Even so, 33 distributions out of 45 (1970 figures) still do not include such a contribution. Probably the main reason for the relative unpopularity of objective items is that their preparation demands skilled item writers and a system of pre-testing. Much can be done of course to ensure that as far as possible examiners try to achieve complete objectivity in their short-answer questions but the diversification in techniques which objective testing offers, resulting in a more comprehensive sampling of the syllabus and intellectual abilities, surely merits further exploration by Boards such as E, F and G which have so far shown little inclination to include objective items in their examinations.

The differing emphases given to particular subject-orientated skills are also evident. Thus, reflecting the particular importance of oral skills in English and French each Board has an oral examination. Teachers are frequently given responsibility for conducting these examinations, but only Board C includes a teacher-assessed component in its marking scheme. In practical subjects teachers play a more important role; five Boards in metalwork and chemistry ask them to assess part of their pupils' work. Even so, external assessment is still the principal method employed, a choice attributable perhaps to the use of end-of-course practical examinations for moderating assessments made over a long period by teachers. Certainly, in most cases where practical work is externally assessed the opportunity has been taken to supplement this by allowing teachers to evaluate course or project work. On-going assessment of this type has been introduced by most Boards as a means of achieving more reliable examining in practical subjects, for the single-shot examination is widely recognised as being extremely unreliable in sampling behaviour and performance. On-going assessment, whether intermittent or continuous, provides the only means of satisfactorily coping with non-uniformity in performance levels and has the additional advantage of involving more teachers

directly in the examining process.

In the other four subjects sampled, little has been done to broaden the range of evaluative techniques beyond end-of-course examinations and this suggests that teachers of these subjects do not appreciate the unreliability inherent in marking major parts of their subjects as examined at present. This apparent reticence is certainly not due to a general lack of desire on the part of the Boards to countenance teacher-based assessment for in the few instances where a course or project work component is included in a mark distribution, teacher-based rather than external assessment has been chosen in every case.

The principal feature of Table II is the prominence given to free-response questions. In history for example, all the marks are awarded for these irrespective of syllabus or Board both at 'O' and 'A' levels. Short-answer and free-response questions occur together in the majority of CSE distributions for 1966 but only eight of the 1970 distributions have a short-answer component at 'O' level and three at 'A' level indicating that the move towards objective testing is even now markedly less in GCE examinations. Although progress has been slow a few changes in attitude are apparent. When objective testing was first established in CSE in 1966, no GCE Board had then introduced it but six examples of its use in 1970 are shown. If the distributions of marks by subjects are compared, similarities between GCE and CSE emerge in that most Boards have an oral French examination and allot a proportion of marks in metalwork and chemistry for the demonstration of practical skills. However, external assessment is much more predominant in GCE; teacher-based assessment has hardly yet begun to make itself felt as an examining technique.

CSE Boards were prepared to act as innovators of new examining methods at their inception in 1965-6 but Table I shows that the types of assessment chosen and the proportions in which these contributed to the overall measure of attainment changed little in the four years which followed. The CSE Boards had not maintained their role as innovators. Examining strategies of the four GCE Boards sampled still followed the traditional pattern in 1966. Since then the limited evidence available suggests that they have shown some willingness to innovate, but that change has been slow. If the move towards a new, more cogent model of examining is to gain greater momentum the GCE Boards must critically assess their techniques, and having done so, emerge with test and assessment instruments which

Table II

The percentage of marks allocated for each type of assessment employed, and numbers of syllabuses offered by examining boards for

(a) GCE Ordinary Level—Mode I

SUBJECT		CHEMISTRY				ENGLISH				FRENCH			HISTORY			MATHEMATICS			METALWORK			
BOARD		J	K		L		J	K	L	J	K	L	J	K	L	J	K	L	J	K	L	
No. of syllabuses examined	1966 1970	1 2[1]	1 1		1[1]		5 5[1]	4 7	3	1 2	1	1	7	4 5	1 3	5 6[3]	4 9	3 4	1	— 1	1	
Objective test items	1966 1970			— 50a	0 33	0 40											0 25		— 50			
Short-answer questions	1966 1970		19			50 40			15 10			0 17					0 25			25		0 7
Free-response questions	1966 1970	100	56	— 50	100 67	50 20	100	80	85 90	75	15	20	100	100	100	100	100 50	100 50	— 50	25	— 27	24 18
Oral examination	1966 1970									10	25	10										
Practical Work	1966 1970		25							15									50	— 33	46 50	
Course Work	1966 1970						(100)b													— (13)		
Project Work	1966 1970																			— 27		

a=1971 syllabus

b=experimental syllabus

(b) GCE Advanced Level—Mode I

SUBJECT		CHEMISTRY				ENGLISH				FRENCH			HISTORY				MATHEMATICS			METALWORK			
BOARD		J	K	L	M	J	K	L	M	J	K	L	J	K	L	M	J	K	L	J	K	L	
No. of syllabuses examined	1966 1970	1	1	1 1[2]	1 1[1]	1	1 3	2	1	1	1	1	3	9	1	1	4 6	6 8	4	1	— 1	1	
Objective test items	1966 1970			— 30	0 40																		
Short-answer questions	1966 1970			0 25	— 30			— 5															
Free-response questions	1966 1970	65	75	75 50	— 25	80 40	100	— 100	— 95	100	85	40	43	100	100	100	100	100	100	100	38	— 27	24 25
Oral examination	1966 1970										20	17											
Practical Work	1966 1970	35	25	25	— (15)	20				15										50	— 33	46 50	
Course Work	1966 1970																			(12)	— (13)		
Project Work	1966 1970																				— 27		

sample the whole range of intellectual demands appropriate to the study of each subject in the curriculum.

A good example of the use of a variety of techniques, each a tool serving a specific evaluative function, is provided by the JMB Advanced Level examination for the Nuffield Biological Science Project. The written examinations for this contain multiple-choice items to test recall and application of knowledge, short-answer questions testing facility for scientific reasoning and continuous prose items assessing the ability to devise experiments and providing an opportunity to show the results of studying in depth. More novel perhaps is the inclusion of questions based on prose comprehension requiring the ability to understand and use information and to relate it to other knowledge. Teacher-assessed project and practical work also contribute to the overall mark.

If variations in performance levels are to be adequately sampled examinations must have a component based on intermittent or continuous assessment and since teachers are in the best position to assess their pupils' efforts over a long period, the experiment of placing more responsibility in their hands should continue. No examining Board claims that its results are without a margin of error and usually the large number of candidates examined is sufficient to demand several examiners for each subject. It follows that the spreading of the load of assessment among a group of teachers is not in itself a matter for concern. A more serious problem is that of moderation. The onus is on an examining board after deciding with its teachers which abilities in a subject each is in the better position to assess, to propose and implement suitable moderating procedures to take account of real and apparent differences of mean and variance of standards between classes, and to monitor the validity of teachers' assessments. This is by no means an easy task but experience gained in cases where teacher-based assessment is already in use suggests that it is potentially at least as reliable and valid as other types of assessment.

A moderating technique which seems particularly promising in offering a teacher more freedom in planning his work, in this case by avoiding an end-of-course practical examination, has recently been introduced in the school trials of the Advanced Level Nuffield Chemistry Project. Each teacher assesses his pupils intermittently throughout the course by devising

a number of practical tests in which he evaluates precisely defined skills, the marks awarded in compulsory questions in theory papers set at the end of the course being subsequently used to moderate the teacher's assessment. Similar freedom can be given to a teacher over the planning of project work provided there is an adequate safeguard in external moderation. For the JMB Advanced Level examination in Engineering Science candidates submit a report of a major undertaking which has required considerable independence of thought and has occupied up to fifty hours of their time. Laboratory reports of four investigations are also handed in and all these reports, sampling a variety of performance levels, are assessed by the class teacher the marks awarded being subject to moderation by the Board's examiners. Much still has to be learned about moderation, particularly in arts subjects where the desirability of giving teachers and pupils freedom for a subjective approach in many topic areas makes successful moderation especially difficult.

Examining by a wider variety of techniques will undoubtedly lead to the acquisition of more precise information of a candidate's attainment but the diversity of the methods used may result in individual measures correlating neither highly nor positively. In such an event a single global percentage score does not provide a meaningful description of attainment and it is more appropriate to produce a profile for each candidate giving his scores in relation to the overall distribution of other candidates' performances. It is questionable too whether the concept of pass and fail is meaningful in this context since it implies that marks or profiles showing different aspects of attainment can be validly combined. In any case, examining is not an exact discipline and the existence of a margin of error in assessment, attributable to the degree of unreliability of the test instrument used, would seem to be sufficient reason for not expressing results on a pass/fail basis.

What is likely to be broadly representative of attainment is not examination performance alone, even when it contains weightings depending on moderated teacher's assessments, but this supported by subjective reports from teachers of their pupils' non-cognitive attributes such as interest and determination. When attainment is measured in this composite way it is probable that predictions of future performance trends will cease to be merely speculative.

Evidence submitted by the Editorial Board to the James Committee

We give below a summary of the Evidence submitted to the Committee of Enquiry into Teacher Education. The full statement, which runs to some 5,000 words, is available from The Business Manager, **Forum**, 58 Elms Road, Leicester, LE2 3JE (price 30p).

The evidence starts by stating the main assumptions on which it is based; first, that the comprehensive school is the appropriate form of organisation of secondary education in the latter part of the twentieth century, and that the transition to *full* comprehensive education (involving the merging of selective schools, whether grant-aided or maintained, into comprehensive systems) will be carried through over the next decade. This in itself presents a new situation, involving quite new demands both on schools and schools systems and on the teachers themselves, and is, therefore, of first importance in any consideration of the future of teacher education.

The second assumption derives from the rapidity of technological and social change, which is profoundly affecting education. Long established and traditional practices are now called into question; schools are now more concerned to promote the ability for learning, for the exercise of individual initiative and creativity, than ever in the past, and this is now affecting *all* schools and *all* pupils—not only a selected few. The new approaches now developing to meet this situation involve the shift to non-streaming, the use of the resources approach to learning and the promotion of individual initiative, all of which involves acceptance of new concepts of the learning process and consequently of the rôle of the teacher. Finally, there is the important trend towards democratic structures within the schools—the young teachers of the future will be expected to participate fully in the control and organisation of the school and must be prepared to take on their new responsibilities.

In sum, comprehensive education, new approaches to teaching and learning, participation and involvement in government—these are three crucially important aspects of the school of the future which can be clearly identified. Together they point to one conclusion: to the need for a highly educated and responsible teaching force *at all levels*, both in primary and secondary schools. The primary teacher today needs a high level

of professional expertise—the range of knowledge and skills required have extended immeasurably recently—while the new developments in secondary schools require teachers able to exploit the new possibilities; to take on the wider functions of the teacher made necessary by comprehensive reorganisation. In our view, the Board states, ‘the teachers of the future need not only to be highly educated, but also to dispose of a very wide variety of professional skills’.

These requirements render obsolete a system of training which differentiates fundamentally between teachers of younger and older pupils—as the parallel system of College and University entry reflects. To overcome this division the Robbins Committee’s proposal, although rejected by the late government, should be implemented, and Colleges of Education fused with Universities in University Schools of Education. This would provide the means of educating teachers to the highest level, and be a crucial step towards overcoming the divisive ‘binary’ system of higher education. To separate teacher education from the Universities, on the other hand, would be a major setback to education.

The Evidence outlines the different course structures that could be provided in this situation, some of them offering ‘concurrent’ training, others concentrating professional education towards the close of the course. All such courses should offer a minimum of four years study and professional education, and all should lead to a degree. In this connection the new flexibility regarding the age of transfer implies that the sharp division between primary and secondary education is now being rejected, while differentiation on the basis of type of school is equally obsolete. ‘Comprehensive education implies a unified system of preparation’, one which takes full account of recent advances in psychology and sociology which emphasise the educability of children, and of the implications of comprehensive schooling in both the primary and secondary fields.

Stress is laid on the need for effective planning of

teacher supply—together with the need to overcome present shortages in nursery schools and elsewhere; as also on the need to make the profession more attractive, both by improving salary scales, and by bringing about an overall and radical improvement in conditions of work—including much more systematic in-service opportunities, lightened teaching loads, particular help to comprehensive and primary schools in deprived areas, democratic procedures in the schools, and so on. Only if clear and definite steps are taken in respect of each of these will the conditions exist for recruitment of a sufficient number of the most positive young people suited to teaching.

Teacher-tutor systems are advocated as a means of involving practising teachers more directly in the students' preparation—it is the pioneering teachers in primary and comprehensive schools who have most to offer to students, particularly on teaching practice; such systems should be systematised and generalised so that the separation of colleges and universities from the schools can be overcome and a fruitful partnership evolved. In the same way much more systematic use should be made of the probationary year, which could become an essential part of initial training—teacher-tutors also playing their part here.

The transition to comprehensive education requires also that much greater emphasis be given to in-service education; in an important sense the whole teaching profession needs retraining in the light of this change, which makes possible quite new approaches to teaching and learning in both primary and secondary schools. Teachers need opportunities for the discussion and exchange of experience, guidance as to the most appropriate educational forms and methods, together with assistance in re-thinking approaches and in mastering new techniques. This can be acquired systematically only through extended forms of in-service education. A practical plan must be drawn up to ensure that all teachers regularly participate either in school, college or university, or local authority based courses. This requires not only generous leave of absence systems, but also a reassessment of the whole question of teacher supply. Such a step 'is essential if the radically new techniques of teaching now being introduced are to be generalised effectively, and if the country is to gain maximum benefit from the change in school organisation now under way'. Allied with this is the need for in-service courses for College teachers themselves—particularly covering new

methods of teaching. A central staff college could undertake this function, and act as a brain centre for the theory and practice of teacher education.

The Editorial Board's Evidence concludes by stressing once again the new opportunities—a radical reconstruction of initial teacher education as a unified system is now both necessary and practical. Courses must be demanding in both an academic and a professional sense, and should be mounted at degree level. What is needed is a basic restructuring of courses, and of the administrative system that underlies them. 'There is no more effective measure of the character of a society,' concludes the Board, 'than the care that is taken in the preparation of its teachers—those responsible for the upbringing of the youth as a whole, and so for the means by which society reproduces itself and changes.' If the proposals made will involve extra expenditure, the need must be recognised, and the resources provided.

Summary of recommendations:

1. Colleges of Education should be brought financially and administratively within the aegis of universities to form Schools of Education. The binary system of higher education should be brought to an end and a unified system established comprising a variety of institutions of equal status.
2. Schools of Education should offer a variety of courses comprising both general and professional education. Some of these should be concurrent, others end-on courses.
3. Schools of Education should act as Area Training Organisations. Rationalisation of ATO areas is necessary to ensure viable size and effective working.
4. The minimum qualification for the award of the Teachers Certificate should be a degree comprising four years' study including professional training.
5. The educational and professional component of such degree courses need revision.
6. The teaching profession must be made more attractive, in terms of salaries and conditions of work, so that it competes on more equal terms with other forms of employment for the supply of teachers. Mature entrants should be encouraged, and the diversification of job opportunities provided for.

Continued on page 12

At Classroom Level

At the start of a new school year, we would like to draw the attention of all FORUM readers to this new FORUM publication. A leaflet, together with an order form, is included in this number, and we are concerned to gain as wide as possible a circulation. The book, which is written by practising teachers and based on their experience of teaching unstreamed classes in both primary and secondary schools, should be of immediate interest and value to all schools and teachers, both primary and secondary, who are tackling similar problems. In addition, students preparing for teaching, many of whom will certainly meet the non-streamed situation when they go out to teach, will find the discussion of methods and techniques of value; indeed there is no other book on the market which attempts seriously to cover the immediate issues discussed in this book.

While the book raises important theoretical issues, the emphasis is on practice—the book arose from the work of a study group of teachers meeting at the University of Leicester School of Education over a period of three years. Its editor, Maureen Hardy, whose article in the Summer 1968 issue of FORUM ('Exploring the Non-streamed Situation') aroused wide interest, is a teacher in a Leicestershire Junior School well known for its work on the Integrated Day (although she has recently been appointed to a College of Education). The articles on primary school unstreaming were all specially prepared for this book; some of the articles on the secondary stage have already appeared in FORUM—but not everyone has taken the journal regularly, and in any case it is convenient to have those articles that specifically deal with non-streamed teaching gathered together in this way.

We must rely on FORUM readers to get this book widely read in schools and in colleges and universities; we got a mass circulation for our only other publication: *Non-Streaming in the Junior School*, which contained the Editorial Board's evidence to the Plowden Committee together with a number of reprinted FORUM articles. Please help us to make a similar success with our new publication which should also play its part in assisting new approaches to teaching and learning in the schools.

May I draw attention to the reduction allowed for bulk purchase, and give an assurance that, if any profit is made, it will be ploughed back into the journal—at this period of rising costs we will need every penny we can get!

BRIAN SIMON

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Reviews



That Little Book

The Little Red School Book, by Søren Hansen and Jesper Jensen; translated by Berit Thornberry; adapted by Alan, Elizabeth, Hilary, Richard, Roger, Ruth. Published by Stage 1, 21 Theobalds Road, London WC1X 8SC.

Any publication which, like **The Little Red School Book**, is seized by the police, will be the centre of violently opposed views. Such views will be entirely personal, as mine are (they do not reflect, as far as I know, those of my employers). However, in this case, although I was astonished at the book's seizure by the police and at the gross distortion of its contents put out by the mass media (I refrain from comment on the magistrate's decision—the appeal is still pending as I write), I feel only luke-warm in favour of it as a book. Apart from its scarcely sensational sexual references, much the greater part of the book reflects traditional, liberal, middle-class idealism in general tone and concrete detail, as well as in its numerous internal contradictions. An opportunity has been missed.

Briefly to take the sex first. Among a few amusingly outrageous suggestions, there are oddly po-faced references to the usual names for sexual organs; masturbation and homosexuality are accepted; and promiscuity without respect for the partner is deprecated. Does anyone seriously suppose that these will be

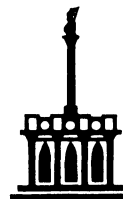
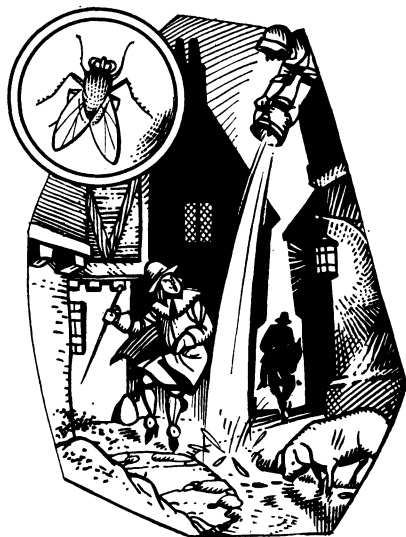
new concepts to schoolchildren, or that they are notably at variance with widely-publicised aspects of the moral attitudes of a sizeable proportion of the population? One may not agree with the degree of freedom it advocates, but this whole section seems to me to be a sober and indeed earnest contribution to the current debate which is conducted almost daily in the press and on radio and television.

Traditional liberal middle-class idealism is reflected in most of the advice to pupils on what to do about the unsatisfactory teachers: have a friendly word with him; discuss the matter sensibly with the head; get a well-disposed parent to write to the head or governors; ultimately, if absolutely all else fails, cut the teacher's lessons and spend the time quietly in the playground. There is no incitement whatever to demonstrations, marches, daubings, insults, violence or insurrection. Some teachers, the authors accept, may be insecure and so resist change; some pupils may be bullies in the lavatories. However, with reassurance, polite reasoning and good will all round, the chances are that both these groups will see the light. I am afraid that it seems to me unrealistic to hope either that the tactics proposed will prove successful against the determinedly unimaginative teacher, or that classes will prove so well disciplined that they will, once embarked on a course of resistance, pursue such a sober line. An underground news-sheet which circulated in a secondary school recently exhorted the pupils to throw petrol bombs into the head's study.

The middle-class tone is apparent in the grammar school orientation of much of the book. On page 81 appears the distressingly condescending comment: 'Some children are so slow at learning that it's very difficult to give them the attention they need in ordinary classes . . . They are called "backward" or "retarded". Backward children manage quite well for themselves in

later life.' It is clear from the tone that the authors do not anticipate their readers to be retarded or backward. In fact, the whole book is grammar school biased. On page 165 we learn that if you stay on after 16 to take 'O' level or CSE, you stay in the fifth form. So much for the comprehensive 'new sixth'. Pastoral organisation is seen throughout in terms of Houses: true of the grammars, but is it still true of the comprehensives, or has not the Year system superceded this in most schools? On page 20 we are told that apart from RE, the head decides, without consultation, which subjects will be taught. If there are heads still so authoritarian, are there many in comprehensive schools? My own impression is that there is considerable staff consultation, and even pupils are increasingly provided with a bewildering multiplicity of options.

Contradictions are perhaps inevitable in a book adapted under joint authorship from a Scandinavian original. What, for example, do we understand by loyalty? 'Many teachers,' says the Book, 'are afraid of losing their job or of not getting promoted. For this reason they don't dare speak out if they disagree with the headmaster or the head of their department. So it's rare for a teacher to dare to tell his pupils what he really thinks about conditions at the school.' A little later it pronounces: 'Always show loyalty towards those you think are loyal to you.' Is the teacher who disagrees with his head and with conditions in the school to be disloyal to his head, even if the head happens to be loyal to him? Alternatively, if a group of pupils takes what the rest consider to be precipitate direct action against a teacher, would the rest feel bound to discuss their wayward comrades with the school staff? Is loyalty only to be experienced by the pupils? Or must progressive teachers deliberately and openly dissociate themselves from their more cautious, possibly insecure, colleagues?



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The Times Educational Supplement

Again, in its advice quoted earlier on sexual experiment and on how to deal with the unsatisfactory teacher, the Book assumes that pupils will behave in a fundamentally reasonable and mature way. In the section on drugs this assumption is dropped. Not only are all illegal drugs condemned, but also alcohol and tobacco. It is assumed that self-control will be inadequate here.

The publicity which surrounded the appearance (and disappearance) of **The Little Red School Book** presented it as a scatological handbook to teenage revolution. This was a gross distortion. In spite of my own possibly carping criticisms, and even if not all heads would want their pupils to read it, it should, if the courts permit, be prescribed reading for the heads themselves. For them the red book is a salutary red light.

ROY WATERS

Eysenck on Race

Race, Intelligence and Education, by H J Eysenck. Temple Smith, published in association with **New Society** (1971). 160pp, £1.50.

Intelligence, Psychology and Education. A Marxist Critique, by Brian Simon. Lawrence and Wishart (1971), 280pp, £3.00.

New Society has hitherto been a reputable journal for social scientists—somewhat popular perhaps, but with a serious approach to the matters in hand. Not surprisingly, the publication of H J Eysenck's **Race, Intelligence and Education**, as the first of a series of books 'Towards a New Society' sponsored by that journal, produced a united protest

from the entire editorial staff. 'Although,' they wrote, 'the book is presented as an objective assessment of the facts, its tone is polemical and it lacks the academic weight normally associated with the magazine.' And they make it clear that the editor alone is involved, that they have 'no responsibility' for the book's appearance. Possibly because of this, the journal printed a highly critical review of the publication by Liam Hudson (July 1) who noted that 'by the standards of the media, this book is brilliant' but, by the standards of science, 'there is scarcely a page on which I . . . did not want to protest—"That simply isn't so!", "That just isn't true!"' Among other critical appraisals were those by a sociologist, A H Halsey, in **The Guardian** and a biologist, D R Newth, in the **New Statesman**. On the other hand, support was forthcoming in a **Sunday Times** review by C D Darlington (July 27); but this same newspaper had the previous week made a pretty thorough exposure of Eysenck's methods by three writers in a 'Spectrum' feature. This, among other letters in support, provoked the disclaimer by the **New Society** staff (June 20, 27).

As the author of a couple of popular Penguins instructing the man in the street how to measure his IQ, which have been sold in their hundreds of thousands, Eysenck is irretrievably associated with the view that what psychologists choose to call 'intelligence' tests measure intelligence in a meaningful way: that is, indicate the incidence of a socially meaningful quality which is predominantly genetically determined. This also implies a need to decry educational developments which have brought mental testing into disrepute. Accordingly, on the one hand Eysenck ignores all the arguments which undermine the 'intelligence' test as such, and so discredit any thesis based on test results (such as that of Arthur Jensen), and on the other hand makes quite arbitrary assertions about the failure of recent educational

initiatives.

Jensen, it may be recalled, contributed a long paper to the **Harvard Educational Review** (1969) which started out from the premiss that the 'Headstart' programme in the United States, which endeavours to reduce the handicaps under which disadvantaged children suffer, had failed. Instead of examining the inadequate nature of these programmes, he asserted that their failure was inevitable given what is known about the genetic determination of intelligence and a great deal of money has been unnecessarily wasted in attempting the impossible. On this basis he went on to reassert the claims of 'intelligence' testing in such a way that, in the political climate in the United States, his arguments could be seized upon by those in favour of segregation, or by racists. Hence some strong and forthright criticisms. It is these that Eysenck sets out to refute. But in the event he merely puts up a smokescreen by refuting 'environmentalist' arguments of his own devising; fails to state any of the basic ones against Jensen; and produces no evidence to uphold the latter's initial contention that programmes of compensatory education, barely started, *have* dismally failed. In fact, building on Headstart, there are now some very interesting developments, including the massive 'Follow Through' programmes based on a variety of different models. Having defended Jensen from the charge of 'heresy' (his own emotive term), Eysenck characterises criticisms of Jensen's arguments (in one of several such build-ups) as 'a nonsense, an alogy, an extravagance, a farrago, a mare's nest, an amphigouri'. The latter term might, perhaps, more properly be applied to his own arguments by educationists concerned to understand and promote the learning process, for it would stigmatise a thesis grounded on the questionable procedure of 'intelligence' testing as 'a rigmarole with apparent meaning which turns out to be

meaningless'.

When meeting an educational issue head on, Eysenck simply reverts to Black Paper technique:

'Education has always suffered from its cult of fads; these change from decade to decade, being replaced not by methods based on experimentally established truth but by other fads equally unlikely to succeed or last for any length of time. We have finally reached the position where some of our future teachers, being trained in Colleges of Education, are unable to spell properly or write English grammatically; *what more do we need* to demonstrate that our present methods are, to say the least, unequal to what is demanded of them?'

Something more, one would have thought, in response to the question I have italicised, if we believe in balanced, all round, assessment rather than mistaking the latest newspaper report, like the latest research finding, for 'established truth'.

A spirited refutation of Jensen's arguments, with none of the errors ascribed by Eysenck to his critics, is included in **Intelligence, Psychology and Education**, where Brian Simon usefully brings together the telling criticisms of geneticists and other scientists of the Jensen thesis. Another paper, on the history of streaming, not hitherto published in this country, is also of particular interest. The book includes a reprint of what was the first outright challenge to the theoretical orthodoxy which underpinned the divided system of secondary education, **Intelligence Testing and the Comprehensive School**, originally published in 1953. This is a closely argued case against the basic premises of mental testing, again with none of the allogy (an obsolete term for unreasonableness) characteristic of its supporters. Nearly eighteen years ago, Simon concluded that, in relation to the English educational system, 'mental testing has . . . been proved a failure in

practice' and that, accordingly, there was no alternative but to reorganise secondary education on comprehensive lines—an accurate forecast, resulting from an objective assessment of the evidence and, incidentally, one which led to the launching of **Forum** for the discussion of new educational developments.

It is a good measure of the success there has been in overcoming longstanding prejudices and practices, and in beginning to reverse the age-old trend in education of favouring the already favoured, that there should have been such a backlash of violent and unbalanced a reaction. Eysenck's book, its illustrations and its style, seem designed to catch the uninformed, and his propositions are well suited to the tabloid press. Thus the **Daily Mirror** received it with a headline, 'Irish aren't as brainy as the English, says a Prof.' The colloquial meaning of 'Irish', it is interesting to note, is 'temper, anger, fury'. Whatever the inhabitants of Ireland may feel about this particular professor, he seems more than a little 'Irish' himself.

NANETTE WHITBREAD

Schools and Pupils

Schools and Socialization, by A Morrison and D McIntyre (Penguin science of behaviour series), (1971), 40p.

This book, by the authors of **Teachers and Teaching**, is another volume in the Social Psychology section of the Penguin Science of Behaviour series. The book's central concern is to assess the research evidence about the various ways in which schools and other educational institutions, through their teachers, curricula and organisation, deliberately or

incidentally influence the young. In order to place this educational influence in its proper perspective the authors of necessity take a broad view. Education is neither the first nor necessarily among the more important agencies of socialisation. The family and other out-of-school environments constitute important settings for learning—learning that may or may not be compatible with that in school. There are interactions between the child's experiences in school and those in the family and neighbourhood and peer group. So for each topic covered a necessarily broad discussion of practices and processes is completed before turning to the evidence on schools.

The actual selection of the topics to be covered in the book is less satisfactory. Whilst the topics chosen—academic performance, interpersonal behaviour, political socialisation and occupational socialisation—are described as four major areas of socialisation, there does not appear to be any adequate rationale for their choice. The last two chapters, which constitute half the book, are on political and occupational socialisation and appear to be merely appended to the rest of the book. Although the chapter on politics and school is justified in that in the past this topic has had only limited attention, no clear reasons are provided for the inclusion of the last chapter.

The topics considered within the book are dealt with adequately, though there is a tendency due to shortage of space for the research studies quoted to be accepted fairly uncritically, and occasional problems arise with regard to the reporting of studies (eg, Eggleston (1965)). This book can be recommended to any students who wants a concise review of the empirical material in the areas mentioned but it does not provide any framework for the analysis of the school as a socialising agency.

TOM WHITESIDE



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