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ABSTRACT

Curriculum development in the social sciences at both the national and local levels in Scotland is discussed in this bulletin. The first article presents guidelines for preparing materials for slow learners, primarily elementary students. The second article discusses the work of a primary and secondary liaison in geography instruction. Examination of a history project which aims to stimulate student interests is presented in the third article. Some aspects of the nature of curriculum evaluation comprise the fourth article. Reflections on European studies and physical geography in Scottish secondary schools conclude the document. The Scottish Centre's interest and activities focus on collecting and disseminating information on curricular developments in the social sciences; helping the Scottish Central Committee to coordinate the activities of local groups and working parties of teachers; and issuing teaching and learning materials for testing in schools and collecting and processing the results. The bulletin is published irregularly. (Author/JR)

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## Foreword

*This is the fourth issue of the Bulletin of the Scottish Centre for Social Subjects. A free copy is being sent to every Education Authority and to every secondary school in Scotland. Additional copies (price 30p) can be obtained from the Secretary of the Centre: Cheques/Postal Orders should be made payable to the Scottish Centre for Social Subjects.*

*The Editorial Committee wishes to thank the authors of the articles in this issue. It should be noted that the opinions expressed are not to be regarded as the official views of the Scottish Education Department, the Consultative Committee on the Curriculum or the Scottish Certificate of Education Examination Board. We would value comment on the issues raised in these articles.*

*In future issues of the Bulletin we hope to discuss other aspects of curriculum development in the Social Subjects at both national and local levels. Anyone who wishes to make a personal contribution in the form of an article of a general nature or concerned with a particular teaching project is invited to contact the Director of the Centre.*

*In addition to an annual Bulletin, we publish a Newsletter of national and local activities twice a year and a copy of this is also sent direct to every secondary school in Scotland.*

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## CONTENTS

# Editorial

It is necessary to begin with an apology. This issue of the Bulletin should have appeared in December 1974, but it has been delayed because of pressure of other commitments at the Centre. It is hoped that it will be possible to return to the annual pattern of Bulletins by the end of this year.

Since the appearance of SSC3, two Newsletters have appeared. The Newsletter aims to provide up-to-date information for practising teachers of current projects and accompanying materials. In addition, the first Newsletter summarised the work of development groups set up by education authorities and colleges of education, and the second Newsletter contained reports of national in-service courses in the Social Subjects held between September 1973 and September 1974. A third Newsletter is planned for September 1975.

1974 was a year of great activity at the Centre. Three more units produced by the National Working Parties in Non-certificate Social Subjects in SIII and SIV were made available. These units—"The Car," "Our Town" and "The Scope of Leisure"—proved extremely popular and the Centre was hard pressed to meet all the demands from schools. Since the end of the year, no further copies of these units have been made available pending the results of an extensive evaluation conducted on them. The issue of the SI Geography Teachers' Guides created great interest, stimulated by a series of in-service courses. Five sets of the materials produced by the National Working Party in History SI and SII, and also the first unit of the Jordanhill College of Education History Working Party appeared. Towards the end of the year, the first Economics unit "Production" also became available to schools on the basis of their willingness to assist in further investigation of the feasibility of teaching Economics in SI and SII. A new area of interest for the Centre opened up with the production of Annotated Bibliographies for the Alternative "O" Grade in Geography and the new "O" grade in Economics.

Details of the 1975 programme of piloting and wider dissemination of materials were given in Newsletter 2 distributed to all schools in February, and it will be seen from this that the multi-disciplinary programme in SIII/SIV and the single-discipline programmes in SI/SII are proceeding apace. The Scottish Central Committee on Social Subjects has set up in the past few months three new sub-committees to examine the issues of primary/secondary liaison, the needs of the least academic pupil, and certificate courses in Social Subjects, and as the work of these groups progresses it will inevitably affect the commitments of the Centre.

The articles in this Bulletin directly or indirectly reflect these issues. B. J. McGettrick, Educational Psychologist at the Centre, writes of the nature of curriculum evaluation, and his article is a significant follow-up to the successful Symposium which he organised in May 1974. The contributions to this Symposium have recently been published as an Occasional Paper of the Centre. T. H. Masterton's article reveals his

deep concern for effective primary/secondary liaison in Geography, which was the theme of the national in-service course in Stirling University in September 1974 which he ably directed. H. Jones has provided a valuable insight into important criteria for devising materials for slow learning children, and his contribution is particularly timely in view of the Research Project which the Centre will be sponsoring in this area of the curriculum between April 1975 and June 1976. The article by M. J. Ciesla examines the place of Physical Geography in schools with particular reference to recent trends in examinations, and N. Sidaway has kindly allowed the Centre to publish an abbreviated version of his talk on History in the Certificate of Secondary Education in England and Wales, which he gave at the national in-service course in June 1974. Finally, another important issue—that of European Studies in schools—is explored in an article from R. A. Wake, which first appeared in the *Trends in Education* magazine produced by the Department of Education and Science in 1973.

Contributions to the Bulletin reflect individual views and are intended to stimulate discussion. So far, the response in the form of correspondence and other comment has been disappointing. I hope that the articles in the present issue will open up interesting areas of enquiry, which can be pursued in future issues. I hope, too, that other teachers will emulate Mr Ciesla's initiative in sending articles for consideration by the Editorial Committee of the Bulletin. A major part of the work of the Centre is communication—and this must be a two-way process.

I would like to thank all members of staff of the Centre for their loyalty and dedication. The work of a curriculum development centre is essentially a co-operative activity in which the contribution of each member is vital.

T. KEITH ROBINSON.

# Preparing Materials for Slow Learning Children— Some Guidelines

G. HOWEL JONES, *Lecturer in Remedial Education, Jordanhill College of Education.*

What's in a name? When preparing a paper on this particular topic one is faced with the problem of choosing the most appropriate term to describe those children for whom we seek to prepare materials. There is no shortage of alternatives. Indeed, this multiplicity of terminology is indicative of the dissatisfaction felt regarding the adequacy of any one definition. It also indicates that there is much current thinking resulting in development both of understanding, and, hopefully, of provision. Before embarking on the principles of preparing materials, it would be worthwhile, therefore, to look at the children concerned and how they are variously labelled.

Traditionally, many such children were described as "the modifieds." This term, frequently applied to the pupils, originally described the courses such non-academic children should follow. It was clearly recognised then that there were many secondary school children who needed a course much more appropriate to their apparently limited potential than that followed by their more academic peers. The important implication here is that the norm was set by the needs of the academic child. The poor "modified" child was, consequently, subjected to a watered down form of that curriculum. Today, one might argue that the needs of the "modified" child should be a main criterion for the modification of the school curriculum.

A more general term in current use is "slow learner." This accepts that such a child is capable of learning, but at a much slower pace. It calls for consideration regarding suitable "learnable" material with an appropriate reduction in the rate and amount of learning. With this consideration in mind, there is no reason why the curriculum for a slow learning child should not be as interesting, relevant and involved as that of a more able child.

Lack of ability is seen as basic to slow learning and so, in many schools, the terms "least able" and its partner "less able," are used for the "remedials" and those just above. Such a lack of ability is usually indicated by a low score on a verbal reasoning test, confirmed or otherwise by his performance in class. While recognising one of the major causal factors of slow learning, such a term tends to imply categorical failure. Children are least or less able in comparison with the "normal," able child of the secondary school. It certainly contributes to the reduction of a teacher's expectations for such a group and a consequent damage of the child's self image, contributing again to an added sense of failure.

A more precise term is that of "children with specific learning difficulties." It acknowledges that such children do experience failure, are slow in learning as compared with others in the school and are limited in their ability, but that these characteristics are the manifest effect of one or a number of contributing factors. Recognition of this fact will prevent educators from grouping all such children in the failing category and treating them as being different in kind rather than suffering the handicapping effects of differences—some very serious—in degree.

What, then, are these contributing factors and how do they manifest themselves?

## CHARACTERISTICS OF SLOW LEARNING CHILDREN

### Intellectual Qualities

It is natural to expect in an academic setting, such as a school, that intellectual factors will be the most important in facilitating learning. As has already been implied, many failing children are lacking in general intellectual ability, resulting in defective awareness of that which is not immediately apparent or so sensational as to attract their attention. In providing materials for the slow learner, it is important to keep this in mind for any work in which he will become involved will need to be relevant to his world, and, if outwith that, will need to captivate his attention, to begin with, by being sensational. The sight and sound, smell and touch of the real thing are of far greater effect than a purely verbal description.

### Cognitive Development

In terms of cognitive development slow learning children experience difficulty in seeing relationships—and particularly so when such relationships are of an abstract nature. In developmental terms such children are still at Piaget's concrete operational level of thought.

A glance at the mental ages of children in a mixed ability SI class will help to illustrate this. According to present figures there are likely to be four or five seriously failing children in each class. Mentally, one of these would be functioning at the Primary 4 level, two at the Primary 5 level, and one or two at Primary 6 level. Such children's lack of learning ability is largely due to a deficiency in cognitive functioning at the level one would expect in a secondary school. Thinking at this level is not only concrete but discrete. Whereas a more intelligent child can relate separate aspects into a whole pattern, for the dull child each event is separate. So themes are not quite as relevant as topics. "My house," and "my Grandad's house" or "my Aunty's house in Canada" mean much more to him than do the general themes of historical or geographical housing.

### Language Experience

An additional factor in slow learning is the extent of language experience and linguistic efficiency. A child from a background rich in language

patterns clearly has an advantage over someone bereft of such stimulation. Suffice it here to point out the implications of this in the provision of materials. Slow learning children both need something to talk about—hence the importance of a variety of primary sources—and also an experience of the actual talking, particularly if there is the element of verbal guidance by the teacher and others who provide the language patterns. This development of intelligent verbalisation—which many primary school children have, and quickly transfer to paper—is essential for slow learning children at secondary school level.

**Reading Ability**

A further area of deficiency is that of reading ability—or lack of it. Again it is suggested, from present assessments, that in a mixed ability class there may be three children with reading ages below 8. These are still in need of teaching and practice. Their reading is cumbersome, they halt to make out "what this word says" so frequently that, coupled with their inadequate mental functioning, they lose the context of anything they read. Another four children have reading ages below 9 years 6 months. Mechanically, these will be quite fluent readers but the indications are that the quality of their reading, both in terms of general comprehension and reading for specific purposes, is far below that required for effective functioning at secondary school level.

In addition to these intellectual factors such children may also suffer from emotional factors.

**Emotional Factors**

Personality disorders or environmental pressures can affect a child's performance. Such children are not unable but "unwilling." Their problem is not so much one of ability as of motivation. This is especially true of those children who have already experienced failure. They now accept too readily their limitations and compensate for them by introspective or anti-social behaviour, or they may resort to the familiar activity (*e.g.* colouring with excessive use of felt tip pen) because of a desire for security.

Materials for such children need to be both captivating and engrossing, allowing for a deep level of involvement.

**Physical Factors**

Some slow learning children suffer from certain physical disabilities. In some cases this affects perceptuo-motor activity manifesting itself in clumsiness, restlessness, untidy work, lack of co-ordination and poor spelling and handwriting. Whereas slackness deserves firm treatment, the existence of poor standards of work due to minimal cerebral dysfunction should be accepted with understanding.

Slow learning children, while sharing the common denominator of relative failure, are individuals, each suffering from specific learning difficulties. Some will want to learn but are unable, others able but not

willing. Yet others did want but because of so many frustrations have given up. Some struggle on despite disheartening odds. In the present climate of curricular planning for such children in the context of comprehensive education are there any guidelines for meeting their needs by providing appropriate materials?

## PRINCIPLES

There are three basic principles to bear in mind when selecting or using materials.

### Relevance

Any materials used should have a content and format that is relevant to the child who is experiencing learning failure. Motivation is generally quite low and so his attention needs to be captivated. Items that are of immediate interest from his familiar world will be seen as relevant and linked with real life. Whereas the curriculum designer's tendency is to expand on a theme, the slow learner is quite happy to become involved—albeit superficially—with items of relevance from his immediate environment and beyond.

Relevance for the slow learner has another application. To him, school is work; work means reading and writing in books. Projects can mean play and activity that is not work. Initially, it may be necessary to provide material in this traditional form so that he can be given the feeling that he is doing real work. Many a child, at present deluged by innumerable work cards, keeps asking for a proper book!

### Routine

The second principle is that of routine procedures. Variations can engender insecurity. Therefore, the slow learner—particularly in the least able category—likes standard routine procedures with which he is familiar. This applies both to the activity and also to any end-product he is asked to produce. It is an echo of the primary school procedure of "read, write and draw." On the other hand, retarded children failing because of non-intellectual handicapping factors are not so bound by routine. They, too, like to know what is required of them, but are much more amenable to variation than the dull child. For them, routine is helpful in that it enables them to utilise strategies which they have developed.

### Richness

Although the slow learning child feels secure in familiar routines there should, nevertheless, be a deliberate attempt to enrich his curriculum and extend his experience in realistic terms.

## PROVISION

With these general principles in mind it is worthwhile thinking of materials in terms of:

### Source

Verbal descriptions tend toward the abstract and make demands on both imagination and experience. For the slow learner verbal descriptions can be unrelated and meaningless. Of much greater interest and value to him are primary sources.

These can take the form of visits to such places as museums, factories, locations, using various forms of transport and at different times. This helps to provide the sensational element so essential to awareness. Children can thus see and hear, touch, smell and taste for themselves. This is experience of a real world. M. Harrison* describes children's reactions to being allowed to touch museum exhibits, put on old-fashioned clothes, etc.

Films and video tapes are a useful second best for primary sources and, in some cases, are better. Cameras have easy access to places and situations providing an 'almost real experience quite cheaply as and when required. Where such devices fall down is that they are made with a general audience in view, so teachers may find filmstrips—where they can provide their own commentary—much more adaptable.

In spite of the popularity of audio visual media, books still play an important role as source material. Failing children spend much time looking through non-fiction books, particularly encyclopedias, attracted, no doubt, by the quality of the pictures and illustrations as much as by the content.

There is an increasing supply of information books suitably written at a sophisticated interest level. Books used in this way need to be simply written in short sentences providing direct statements of factual information. Many of these books take familiar situations as their starting point. Some schemes such as Macmillan's "Way to Work" series extend from such simple information out into simulated activities of calculating wages, deductions, etc. Another series—D.A.T.A. books (Schofield & Sims)—takes the novel approach of describing the geography of Britain through the eyes of Zig and Zag (Tom Thumb size visitors from another planet in their tennis ball sized space capsule!).

This list of sources could be extended to cover actual pamphlets and brochures. Sets of pictures, either commercially produced or made up by the teacher, are also of considerable value. The proliferation of colour magazines provides an endless supply of such material whereby a picture is worth more than a thousand words.

### Procedures

The problem these days is not so much in the area of availability of material but in that of how to use it. Thus it is worth thinking about

* M. Harrison. Learning and Enjoyment. *Remedial Education Journal*, Vol. 4.4, 1969.

which procedures to follow. Slow learning children sometimes lack initiative of the right kind. They need help in this respect.

Some preliminary considerations are those of storage location and indexing. Colour coding can be quite helpful here by introducing a single, concrete reference, *e.g.* books from the red shelf or box in place of the more abstract concept "biographies." In drawing up assignments teachers would do well to specify clearly the source for any task required. This needs to be done in very specific terms such as page numbers and book references at the end of the question asked or instruction given.

The actual work that children do from materials is facilitated by the use of worksheets or workcards. The former specify work to be executed from other sources while the latter are more self-contained in that they provide all, or most, of the information a child needs to complete an assignment.

Within this fairly regular procedural routine there should also be opportunity for exploration, discussion and involvement. Verbalisation engenders a greater degree of awareness—the deliberate drawing of attention to the hitherto unnoticed. Equally, involvement brings into an activity a greater degree of relevance. A previously unfamiliar situation now becomes part of the child's newly discovered world.

**End Products**

Finally, the provision of materials for slow learning children should allow for the format and nature of end products. For the child of low intelligence these will need to be fairly simple and soon completed. Colour can help to compensate for poverty of content. Worksheets and written assignments, though of a primary level, can be collated and stored in a sophisticated loose leaf folder thus giving an acceptable outward format.

Children suffering from specific factors often experience great difficulty with the actual production, especially in terms of handwriting and drawing. This can be compensated for by making use of mechanical aids such as typewriters or tape recorders.

Visual presentations mean much to slow learning children. These may be in the form of simple charts and diagrams or the more complex forms of models and labelled displays of collected items. Yet again a simple content can be made to look more adult by using sophisticated display techniques (*e.g.* Dymo labelling and typewritten descriptions).

Working with slow learning children calls for a careful blend of immature content in a mature format. Essential to this is an adequate supply of appropriate materials. For, as they provide the original stimulus, so also are they the evidence of work accomplished. Something from which a slow learner derives both a sense of achievement and satisfaction.

# Primary/Secondary Liaison in Geography

THOMAS H. MASTERTON, *Principal Lecturer in Geography, Moray House College of Education.*

During the 1974 National In-Service Course* held to discuss "Geography in the age group 10–14," much discussion took place on the nature and problems of liaison between staffs of primary and secondary schools. A dichotomy emerged and was made explicit in such personal comments as:

"I (have to) treat them all as knowing nothing and start from the beginning in S1."

"My big boys and girls are responsible people yet they become overnight first year kids herded around."

"What are primary schools teaching (in Geography) these days?"

"We did not know of the existence of an SCCSS scheme for SI and SII!"

"First year (pupils) just *won't* sit still!"

Such lack of knowledge and understanding by one staff of the work of the other, for that is what such comments reveal, is implicit in the philosophical and administrative separation of these two parts of the educational services. The part to be played here by the development of the middle school in this country has yet to be positively assessed.

It is clearly time to be very critical of this separation and to seek ways of reducing the very adverse effects. "Gateways" must be cut through the "walls" that separate primary and secondary schools. Such "gateways" can be formed from the recognition of our common aim, purpose and goal that children should grow in wisdom and that each teacher at each stage has a special and significant role in the development of such wisdom.

It must be said of course that much liaison has already taken place and that links already exist, but these tend to be administratively centred or even "personality centred" at times.

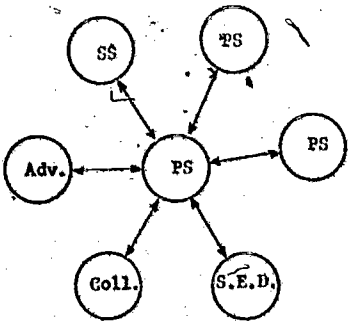
Consider models A, B, C, D, overleaf.

Adviser-centred and college-centred links exist (models C and D). Such staff commonly accept, or are required by condition of employment to accept, the responsibility for maintaining and developing links with schools and with each other.

School-centred links also exist (models A and B), and encouraging examples such as the Newlands Primary School and Riverside Secondary School co-operative venture, were cited at the National In-service Course. In this example careful studies were made of the different approaches to map work and local study in the upper primary (Newlands) and the lower secondary (Riverside).

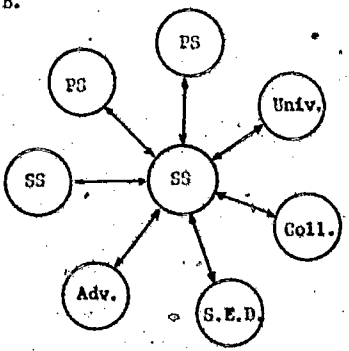
* National In-Service Conference No. 9 "Geography 10-14" took place at Stirling University in September 1974 under the aegis of Moray House College of Education. Main themes were Primary/Secondary Liaison and Concepts and Skills in Geography from 10-14.

A.



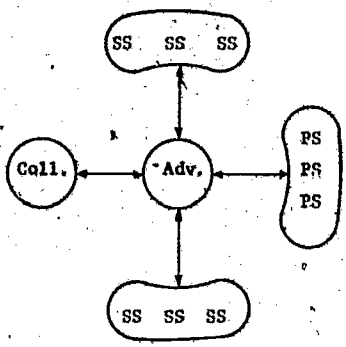

PRIMARY SCHOOL FOCUS

B.




SECONDARY SCHOOL FOCUS

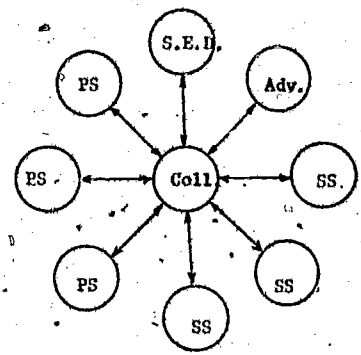
C.




EDUCATION AUTHORITY FOCUS

'Panels' co-ordinated by the Adviser may link some secondary school staff together, as do locally provided in-service facilities. Some Secondary Advisers also have responsibilities in the Primary sector.

D.




COLLEGE OF EDUCATION FOCUS

Contact here is largely through visiting students and through regional in-service provision.

**Figure 1**

KEY FOR FIGURES 1, 2 & 3:

| | |
|---|---|
| S.S. - Secondary School staff | Adv. - Advisory Service |
| P.S. - Primary School staff | S.E.D. - The Inspectorate |
| Coll. - College of Education staff | |

These links can, on the other hand, be at the low level of a social occasion such as an annual coffee/sherry party or the passing on of information about pupils (mainly problem pupils!). As such it would be most unlikely for any sense of common purpose to maintain itself and it has been noted that such "conversations" may readily end in disillusion and even dislike.

However, it is also unfortunately true that primary school staff may have intermittent contact only with College staff, S.E.D. and Advisers and little or no purposeful educational contact with staff of other primary schools and with the local secondary school.

That such links are indeed not only desirable but essential for the health of education in schools may be seen if we look briefly at some ends, outcomes or objectives of liaison and links.

Firstly, there is need for information and knowledge of the curricular and teaching methodology and expectations in areas other than one's own. Secondary school teachers cannot develop a worthwhile concept of the primary school without themselves having contact with primary school teachers and pupils and their work, to provide the precepts on which understanding will be based. It can be argued that the secondary teacher might well be introduced to the work of the primary school in pre-service days in the Colleges of Education. If College Boards of Studies can be persuaded to accept this, then they could surely programme such an element into the appropriate courses. It can also be argued that primary teachers in pre-service would profit from a similar introduction to secondary work.

Secondly, there is need for the obliteration or at least diminution of the rather absurd discontinuity in curriculum between P7 and SI. Primary and secondary staffs can turn their joint attention to the construction of a continuous developmental programme covering P6, P7, SI, SII, and leading with as little a break as possible from one school to the other.

Thirdly, there is an obligation on the staffs of both schools to try to understand the methodological emphases used in both schools; to relate what they wish to do to psychologically appropriate learning situations and to recognisable stages in development of the child. Such liaison can help to create a "rhythm" in the education of the child.

Fourthly, some may also view such linkage in terms of gaining "influence" and promoting their points of view. Wherever people meet and talk, "influence" is usually exerted. The only way to avoid being influenced is to lock oneself up in a soundproof room! While such motivation may be questioned on a number of grounds, the conversations and discussions that will follow, if between open minds, can only expand horizons and open new ways, or at least turn people to look again at their old ways and the restrictions of their old horizons.

When ignorance exists, it is possible for a university lecturer to say of Geography in the primary school, "But that's *general* knowledge!" It should be—it should be no other—it can never be the highly specialised knowledge of the urban geographer or the professional geomorphologist. The child begins as a generalist, open to all the stimuli of his environment and at pre-school undiscriminating in his perceptions of the environment.

As he passes through the primary school, he properly becomes more discriminating in his perceptions and his conceptions become more structured, but he is still *not* a professional or academic "geographer." Even the main aim of the Alternative Higher Grade Geography syllabus is a contribution to "general education" for the 17/18 year old.

A primary school teacher may also, for quite different reasons, express the view "that I am only able to concentrate on general knowledge because I am *not* a geographer myself." Knowledge of the special contributions in terms of geographical ideas and geographical skills may simply be lacking, because no opportunity has ever been given for that primary teacher to acquire such knowledge.

For the latter viewpoint, surely what is needed is an analysis of the contribution of the subject in terms of skills and concepts, simply expressed, avoiding the jargon of the professional geographer, and therefore readily understood and appreciated by the non-specialist as applicable to the work of the primary school. This may, indeed, also help the academic, who is on occasion unsure or unconvinced of the value of his contribution at educational levels other than university.

Liaison, as it is discussed here, may have much to offer. If it does nothing else in the short-run but increase knowledge of other sections of the education service, then it must be worthwhile.

**These Ends Suggest the Following Means:**

There is no acceptable continuous curriculum ranging over the late primary and early secondary stages (in Geography at least). If such existed, the pressures to use it would be great and probably irresistible. The opportunity hence exists for teachers in primary and secondary schools to take into their own hands the development of their own curricula. Guidance and advice from elsewhere can of course be offered and should be considered, but here is an opportunity for teachers to discuss, and to decide among themselves the material and manner of their work. The considerations and criteria propounded by the *Primary Memorandum* and by appropriate Curriculum Papers might then be compounded into a dynamic, workable and acceptable unity.

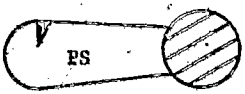
The objectives and content of the curriculum, common and lasting interests, are then a practicable catalyst of liaison. Consider the models on the facing page. Each school is symbolised as the "fruit" of the sycamore. Each "seed" represents the curricular interest.

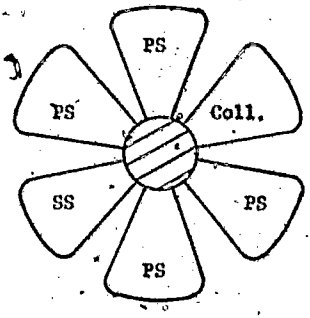
There is no egocentricity in this model (Fig. 2). The focus or link is the curricular problem. The skills, the thoughts and the solutions are those contributed by all concerned, whatever their institution.

A close enough analogy can be found in the Edinburgh Branch of the Geographical Association at the time when it produced the first edition of the *Atlas of Edinburgh* (Fig. 3).

Close co-operation on that occasion, undoubtedly led to greater understanding.

Such discussions need not be institutionalised. They need not, and, it can be hazarded, must not become the *sole* prerogative of promoted staff



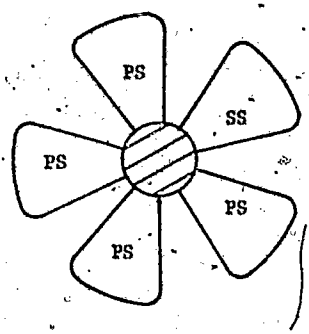




**Figure 2**

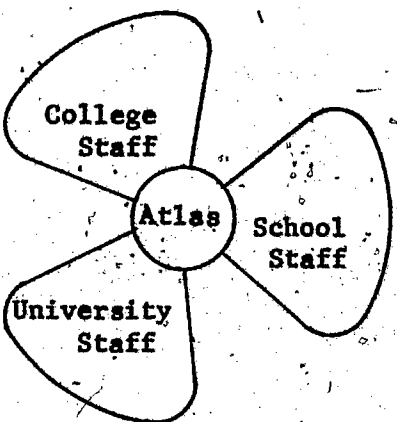



**Figure 3**

in primary school and assistant head teachers (curriculum) in the secondary school. If such occurred, much value would evaporate as the resultant progressive curriculum would be one of imposition rather than one developed by classroom teachers. Promoted staff and curriculum heads would, however, be the ideal co-ordinators, the bringers-together of the teachers to be involved.

In any pattern of liaison the secondary teachers must first clarify and extend their concepts of the primary school situation and primary teachers must do the same for the secondary school.

Such concepts, the organising ideas on which understanding is based, must themselves be based firmly in the perceptions of reality. Secondary school teachers must look, listen and ask! Not with the bland smile of assured (assumed?) "academic" superiority, or the acidity of the self-righteous critic of reading and writing standards; but with the open mind of a seeker-after understanding. Dearden's "Philosophy of Primary Education" may help if read by *both* staffs.

It must always be remembered in any liaison group that some primary staff may be fighting to overcome unfounded and ill-based feeling of "inferiority," and that this can lead to all sorts of inhibitions. It must also be borne in mind that our rules of certification and registrations can still permit teachers of Geography in secondary school who have but *one* course in General Geography (along with Economics or Geology), while graduates with three university courses in Geography have entered the primary sector.

Not all staff need to be involved at first; only a few may be interested. It is probably best to move gently and circumspectly in early stages. Those responsible for the initiative might well consider involving *at the start* only those they know, or suspect have some sympathy, and are also able to avoid "specialist jargon" and "putting their subject first."

Initial personal contacts are of the greatest significance. If they are soundly made, a structure for discussions can be created.

**A Suggestion of One Way to Proceed**

Two primary school teachers offer an "in-service" afternoon to their local secondary Geography teachers. They are working in a semi-open plan school, with access to a small but well arranged resource area. They are coping with mixed ability classes.

All of these features are of interest and concern to the secondary school staff, who will very soon realise that the primary staff have expertise and are willing to show and discuss their methods and offer advice on the teaching of mixed ability classes. Secondary staff may soon realise some of the reasons why their first year suffer such trauma in moving from one school to the other.

During such a discussion one of the primary staff asserts the poverty of the local environment as an aid to teaching/learning. This is challenged by a Geography teacher who points to examples of its richness as such an aid. They agree to investigate the locality together and prepare an analysis

of its potential for outdoor work. They might agree to take this further, and to identify those concepts which might be developed by study of local phenomena; for example:

| | |
|---|---|
| a river course | sphere of influence |
| a village | changing land-use |
| function (of buildings) | road network |

They might try to reach agreement on which will be taken up and taught in primary school, to be extended in secondary school; and which will be left wholly to secondary school.

Discussion of this type is bound to touch on skills of map reading, and it should be possible to reach *some* agreement on which skills should be introduced in primary school and reinforced in secondary school. For example, the use of Cartesian co-ordinates as map references can clearly be introduced in primary school.

If such agreement can be reached, a major step forward will have been taken towards a progressive, continuous curriculum fully acceptable to these schools.

There are, of course, dangers. If incompatible personalities are forced together, goodwill cannot develop and compartmentalisation will return with a vengeance!

The secondary specialist should constantly guard against attempting to push into the primary school methodology and approaches which might be appropriate to, and good for, the pupils and their geography, but might be quite inappropriate to the general education of the younger child. An unhappy precedent exists.

The development to a high level of powers of critical and creative thinking are essential objectives in an undergraduate course in university, and university staff would most properly deem them so to be. Such attributes of critical thinking as analysis, synthesis, evaluation, and research, are all, of course, essential to university and advanced work. Unfortunately, they have on occasion been debased and superficialised to fit into secondary school curricula, and accepted by many. Secondary school staff must not attempt to produce such a "watering-down" for primary school, and primary school staff must not accept it. Value to the immature mind at its particular stage of development is all-important and each proposal must be scrutinised with care.

Intrinsic to all of this is, of course, a proposal for in-service work—*true* in-service work, conducted (largely) by teachers for teachers—by practitioners for practitioners—with the solution of common problems in mind. In August 1974, during a pre-session in-service week, an Edinburgh primary school opened its doors to the staff of the local secondary school. Teachers were in their classrooms, though without pupils, and the secondary staff were invited to view pupils' work and discuss problems and possibilities. Although it has to be said that the response was rather poor, the idea was nonetheless good, and suggests a valuable use of the pre-sessional in-service week, where that exists.

But the greatest value of this kind of development is to the pupil, providing a greater sense of continuity and security and a more valid programme of work to assist intellectual and social development. This is the real strength of this proposal.

**In Conclusion**

If this article is seen to be provocative, such challenge can be justified by the existence of a situation in which action must be provoked.

On an experimental basis and as an outcome to the In-Service Conference "Geography 10–14," a number of "nests" of secondary Geography staff and primary staff are in process of being put together. The progress of their work will be monitored and co-ordinated. In due course this experiment will be fully reported and should thereby provide useful guidelines.

The National Conference "Geography 10–14" will therefore have fulfilled its main objective and have acted as a "spearhead" of development.

# The History Project: a Method of Examination?

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At either end of the age range, it is a commonplace for teachers of History to give scope for individual study: early in the primary school a childs' imagination is stirred by vivid stories of the past and he is encouraged to reconstruct his own version of the terrors of life in the Stone Ages, or the thrill of exploration in the 17th century or of the miseries of children of his own age in early industrial Britain. At college and university, the thesis, the dissertation, the research project are held up as the height of historical skill: the rendering of original historical research into elegant prose or nowadays the economic or demographic presentation of statistical validity.

Working inwards from these extremes, in the early secondary school the individual or group project, perhaps on some local theme, is an accepted teaching technique both to stimulate interest and to develop skills which are generally regarded as part of the historian's craft—the compilation of relevant data and its presentation in a logical and interesting way, the assessment en route of variation in point of view, the curbing of the sweeping generalisation and, most important, the presentation of a conclusion. Later, at the age of 17 and 18, the senior pupil specialising in History is guided, basically by means of the longer essay, further along this road to the formulation of an individual balanced point of view.

Why then in the middle of the course is the teaching so often arid and the spin-off in terms of mature adults who remember their History at school with joy so limited? Why have the efforts of our best teachers both north and south of the Border been directed to producing generation after generation of Pavlovian puppets regurgitating sterilised notes and losing all interest in the subject thereby?

Of course, there is only one answer: the straightjacket of the public examination both sewn and worn with such pride by the very teachers who should be providing the intellectual freedom and excitement which their beloved subject can bring. Deep down it must be something to do with the Puritan ethic: "Suffer as we have suffered and in due course enlightenment will dawn!" But unfortunately the study of History in the years up to 16 is not an initiatory rite from which all will emerge with pride. For most of the population the 16 plus examination is the end of the road.

If an Englishman may tread delicately on Scottish corns and cast a glance at the Alternative History syllabus for Ordinary grade, he can find the key statements. Candidates should gain a fuller understanding of the subject matter and should be encouraged to form their own judgements based on the subject matter. They should also learn to employ sound methods of study and be able to enter imaginatively into the life of the past. Excitement is hinted at later in the detailed syllabus: candidates

should have "enough familiarity with the poems of Burns, and parts of Galt's *Annals of the Parish* and Elizabeth Grant's *Memoirs of a Highland Lady* to catch through picturesque details the spirit of the period. Contemporary paintings by *e.g.* David Allan and Raeburn can be of similar use."

The first of these aims—understanding and judgement—can be tested in the traditional examination paper. Candidates choosing as one of their three on Paper II an imaginative question, may show they are able to enter into the spirit of the past if they have an easy facility for the essay, but weaker candidates may have difficulty revealing their appreciation of the past in this way. Certainly at C.S.E. level in England this is true of many who can show this insight orally or when not pressurised in the examination room. The capacity to study on one's own, the skills of research and so on can surely only be revealed over a period of time.

But whether we like it or not we are all being forced to examine our exams. From many quarters blows rain upon the orthodox History teacher: social studies or the humanities offer greater relevance we are told; the aims and objectives game must be played to Bloom's or later taxonomic rules; the psychometrist, now challenged in his sphere of intelligence testing, moves his objectivity into our question setting. No longer will "Write all you know about Mary Queen of Scots" suffice, however it may be delicately reworded year after year.

The issues cannot be ignored. What is History? Why do we teach it? Can we . . . Should we . . . test it?

**The Certificate of Secondary Education**

In England the inauguration of the C.S.E. opened the floodgates in the years from 1963 onwards to this tide of questioning, and the present re-examination of syllabuses and methods in Scotland may, I understand, be equally traumatic. For the importance of the introduction of the Project into an examination cannot be underemphasised. It must lead to a radical rethink of the whole concept of assessment. Many other innovations can be incorporated into the normal examination mould: objective testing for instance may appear to be a frightening departure from the essay answer but in its search for scientific objectivity, it really only hones the conventional weapon sharper, leaving undisturbed the conventional relationship between examiner and teacher. But the incorporation of the project upsets this apple cart and for this reason it is approached much more suspiciously by the conventional teacher—and rightly so.

It moves the process of assessment from a sample of the pupil's performance, encapsulated on paper at one point in time, to the compilation over a period in time of evidence of a pupil's enthusiasm for the subject. The project can put the passion back into assessment, as may have been the case when the higher literary essay was first used for entry into the public service, thereby leading to the public examination system as we know it, suitable no doubt for the literary few, but completely irrelevant to the majority of the population who are not required to write succinct ministerial briefs under pressure.

## The Special Study

Let us therefore consider in more detail the aims of a Special Study in History as defined by the West Midlands C.S.E. Board some ten years ago and still accepted as the classroom teacher's brief. There are fifteen Boards in England each with individual rules for the History Project but the West Midlands is reasonably typical.

The Special Study is valuable for two broad reasons. Firstly, it tests those qualities which the good History teacher would wish to encourage in addition to the retention of factual knowledge and historical reasoning tested in a written paper. Secondly, it should provide an incentive to teachers to use methods of teaching which in the past have not been considered appropriate in examination preparation. What qualities should it then test? . . . basically . . . it should prove a challenge to the candidate's persistence and thoroughness, to his ability to explore a subject in depth, to read widely and to examine source material. It is not pretended that the candidate will be engaged in historical research but he may with guidance gain something of the thrill of seeing History at its source.

Many teachers will be aware of the stimulus provided by visits to archaeological sites, historic houses and museums . . . which could provide a starting point for the inclusion of some aspects of local history in the examination.

Another body of History teachers preparing for the examination in the South East spoke of such factors as the recognition of causal effects and the development of concepts, but also of motivational factors such as enthusiasm, curiosity and persistence; and of the pupil's capacity to recognise bias and prejudice.

Now it is one thing to assume that an historical course includes the encouragement of such personal qualities, it is another to proceed to examine them. If one agrees to allow this kind of dynamite into the examining process then one cannot duck the consequences. "How does the examiner know," the sceptic will ask, "that the project has not been copied from elder sister?" "How do we know that Dad has not written the conclusion?" "What about the pupil with access to the local library compared with the pupils in a socially disadvantaged area?" "Wasn't Sally particularly lucky to have been taken on holiday to York . . . Edinburgh . . . Florence so that she could collect all those beautiful pictures to adorn her folder?" What does the teacher do with the poor pupil who cannot cope and needs extra help in order to finish a project at all?

And, of course, all these are valid objections if we are still playing the traditional examination game: how do I get more of my pupils through the examination against the wiles of those devilish examiners who keep changing the rules in order to thwart me, the classroom teacher?

But the C.S.E. in England has changed the rules of the game anyway; fully teacher controlled, it accepts a partnership of assessment in which the verdict of the teacher, subject to moderation or validation whichever term you prefer, is an integral part of the examination.

There is only one person, to put it at its crudest, who can tell if Sally is cheating; or more positively, who can adequately assess the enthusiasm, the curiosity, the perseverence which Sally has brought to bear upon her basic historical resources, resources which may vary in quality and quantity depending upon her choice of topic. That one person is her History teacher.

**Choice of Topic and its Presentation**

The choice of subject matter is vital and so, again in the words of the West Midlands Panel:

> The Special Study is primarily a test of the ability of the candidate to work individually on historical material but every teacher will realise his responsibility to his pupils and naturally will wish to offer guidance in the choice of topic and in the pattern and direction of the work. Only a teacher can judge what is right for his pupils and the Panel believes most strongly that the greatest possible freedom should be given.
>
> Some teachers may wish to focus all Special Studies on aspects of the syllabus being studied . . . Other teachers may feel that their pupils would benefit by working upon some other period of History and consequently would allow pupils to choose subjects divorced from those covered in the syllabus.

The project will usually emerge as a folder of written work and some parameters need to be defined in terms of length or time spent upon the work although this is usually implicit in the scale of marks awarded proportionate to the total. Most teachers would agree that:

> In a piece of work of this nature the Panel would expect a higher standard of written English than in a written examination. At the same time there will be a place for neatness and clarity of presentation. The judicious use of appropriate illustrations, photographs, maps and diagrams should be encouraged.

But although this is the most usual form of presentation some pupils can nowadays use models, tape recordings and dramatic presentations as ways of expressing both their knowledge and insight in a more personal way and these can be equally valid both as education and as a means of examination.

The West Midlands Board grasped firmly the challenge presented by the weaker candidate who without help could not produce an adequate project, and also the need to ensure that the work done was a true educational experience ongoing and developing.

> Having helped the pupil in the choice of topic and discussed possible methods of presentation the teacher should guide the progress of the work by checking regularly and promoting fresh lines of attack . . . The pupil cannot be allowed to flounder, otherwise the educational value of the work will decline. The amount of guidance must be left to the

discretion of the teacher and it is realised that the weaker pupils will need considerably more help.

This help is best given by discussion and work should not be marked in the conventional way, corrected and rewritten so that it becomes virtually that of the teacher and not that of the pupil.

## The Assessment

English Boards vary in the proportion of the final marks awarded to the project as against those given to the final examination; and some Boards only make the project an optional feature.

The East Midlands Board only awards 20% but adds to this another 10% for a teacher's assessment of "oral response and historical knowledge revealed throughout the course." In the West Midlands area the project is worth 25%, but it has to be done by all candidates, whilst in the area of the Northern Board it is compulsory and rates as 40% of the final examination.

Another difference of opinion arises over the importance of the oral examination and, in most cases, this is one method whereby the outside moderator samples and checks upon the standard. Some regulations require the classroom teacher to conduct an oral for its own sake. Of course, under Mode 3 regulations (the system whereby the school sets its own examination upon its own syllabus) greater emphasis could be placed upon project work of varying kinds.

Marking is in the hands of the teacher subject to moderation by a representative of the Board, usually an experienced teacher himself assessing the standard of a group of schools with which he will work over the whole two years of the examination course. In other cases moderation can be a group process.

Discussion of the skills which should be revealed in a project is the area most likely to lead to violent disagreement between teachers depending upon their conversion or otherwise to the "aims and objectives" approach. In my experience, teachers have great difficulty in deciding how to apportion precise marks based upon definitions whilst, on the other hand, they agree quite quickly upon an order of merit if "folders" are simply sorted into five grading groups, redivided if necessary and marks are awarded in this way, automatically ensuring a spread.

The East Midlands Board awards its 20 marks as follows:

| | |
|---|---|
| 1. Historical content and relevance of matter | 8 marks |
| 2. Originality of work, evidence of reading and research | 8 marks |
| 3. Presentation (including use of illustration) | 4 marks |

(One might ask what happens to the 4 marks if the project consists of typescript without illustrations—for many CSE girl candidates do type.)

Another Board suggests an alternative mark-range to be used in whole or in part:

0–5 Inadequate in most respects, *i.e.* length, accuracy, presentation.

6–10 Poorly thought out and presented although adequate in length.

11–15 Conscientious in preparation and presentation, but little evidence of wide reading or historical insight.

16–20 Good clear presentation, sound factual content. Enterprise in selection of visual and diagrammatic material if appropriate.

20–25 Outstanding in form and content, showing evidence of wide reading and imaginative understanding of the subject.

The West Midlands Board gives the following guidance:

It is suggested that the teacher should not attempt to break down the qualities to be assessed into a detailed marking scheme as the work will vary so much in type but should mark by impression and take into consideration the following factors of which the first three will be generally considered essential to any historical study:

i. Detail of historical content.

ii. Thoughtful use of the available material in reaching conclusions.

iii. Arrangement of work including a table of contents and acknowledgement of sources used.

iv. Evidence of variety of source.

v. Evidence of visits and fieldwork.

vi. Aptness of illustrations in relation to the text.

vii. Aptness of models submitted as illustrative of the text.

Readers should remember that the C.S.E. examination excludes the top twenty per cent of the ability range and is designed essentially for the average pupil.

The task of the moderator, who may sometimes work alone but may sometimes be engaged in a group process, in itself a valuable experience for teachers, is to assess the overall standard of the projects from one school in relation to those over a wider area but never to disturb the rank order of the individual pupils as decided by the staff of the school.

The project may not necessarily be the work of one individual. Group work may be the most effective method if full advantage is to be made of local history. For local history can hardly be examined by any other way than by a project. In a national examination any attempt to set local questions can often lead to the examinee knowing more than the examiner. And yet its value is unquestionable.

If one may quote from the excellent pamphlet published by Moray House, *Teaching Local History* by I. Ferguson and E. J. Simpson:

Whatever the locality and whatever the approach, the study of local history is an indispensable part of an historical education—indeed of any kind of education. It provides an excellent complement to the

purposeful study of contemporary and world history. As W. G. Hoskins has written: "While world histories sweep ecumenical horizons with powerful telescopes, the local historian utilises an equally valuable instrument—the microscope."

But even these authors imply that local history can only be included in a history syllabus well below or above the normal examination stage. However a group working upon local resources in the way these authors describe can indeed be examined by the project providing one places one's faith in the professional integrity of the teacher and allows him to disentangle the contribution of the individual pupils for assessment purposes.

**Further Developments**

In England, the seminal influence of the Certificate of Secondary Education, probably the greatest single contribution to in-service training in the past 25 years, is beginning to be felt in studies taking place on the feasibility of a joint 16 plus examination for the majority of the age range. Despite temporary setbacks due to rearguard action by the independent "O" level Boards, the 16 plus examination must come as an inevitable corollary of comprehensive education. The project must then be accepted as an integral part of any examination for all ability levels.

The project has been accepted by the teachers and administrators engaged in the feasibility study prepared for History by the Southern Regional Examinations Board (C.S.E.) and the Oxford Delegacy of Local Examinations. In so doing they have mounted both a careful justification of the concept but also some well aimed warnings as to the sloppy nature of some project work if the teacher involved has not sufficiently considered his methodology. Teachers who wish to include the project in their examinations should carefully consider the Panel's suggestions:

Two of the major problems that have been encountered, both of which have direct implications for assessment, are:

(a) the intensity of treatment which should be given to the chosen topic or, in other words, the degree of generality at which the topic should be chosen and treated;

(b) the difficulty of ensuring that marks given for projects are widely spread. Too often the project fails to make its intended contribution to the assessment as a whole because of the bunching of marks at the top end of the scale employed.

Certainly the first of these is of considerable importance and brings one back to the skill of the class teacher. The second can be avoided by impression marking into groups in preference to the use of detailed marking schemes. But sloppiness is best avoided by definition of the skills the project aims to test.

The project can test a range of skills both simple and complex and can thus provide an excellent vehicle for students at all levels to show their mastery of them. Great care needs to be taken in defining these skills and in the creation of criteria for subsequent assessment based upon

them. It is also worth considering whether all projects need to be finished or whether one would ask students instead to indicate the kind of questions which they would need to ask and answer if they were tackling a particular subject, the kind of evidence they would expect to find and the difficulties they might expect to encounter.

The project might then become a rather different sort of exercise culminating in an oral session.

And so in England the debate continues as the C.S.E. experience moves both into the "O" level field and also into the Sixth Form where the Certificate of Extended Education is already being taken by thousands of candidates even whilst the Schools Council through its Examinations Committees prevaricates and proliferates schemes for the reform of the sixth form examination system.

However anyone engaged upon reconsidering aspects of the examining system in Scotland can hardly ignore the project both because of its regular use as a teaching tool in the classroom and more pertinently in the library and in the field. A careful look at the C.S.E. examination in England could hardly fail to be fruitful and one would suggest that its inclusion into the normal examination could help to avoid the sad disillusionment with History as a subject by the school leaver as is so often the case at present.

## References


*Special Studies on History.* West Midlands Examination Board, Memorandum No. 4, Norfolk House, Birmingham, 1971.

*Alternative History—Ordinary and Higher Grades.* Scottish Certificate of Education Examination Board, Edinburgh, 1969.

*Teaching Local History.* Ferguson, Ian S. *and* Simpson, Eric J., Moray House Publications, No. 9, Oliver & Boyd, 1969.

*16+ Study in History.* Interim Report, Oxford/SREB, Southampton, 1973.

# Some Aspects of the Nature of Curriculum Evaluation

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It would be difficult in an article of this length either to touch on the variety of views which exist on curriculum evaluation, or to explore in depth any one of those views. It would also be theoretically impractical, and practically impossible to suggest to those who become involved in curriculum evaluation any one best way of proceeding in a particular situation. The purpose of this brief article is more to highlight some of the aspects of curriculum evaluation which have a bearing on a variety of evaluation contexts.

Having said that, the point must be conceded immediately that there is a wide variety of styles of evaluation, each of which will be more or less useful for a particular purpose. These styles may differ not only in kind (*i.e.* in what they attempt to do), but also in degree (*i.e.* in the extent to which they attempt to do it). Examples of styles of curriculum evaluation which differ in kind, and which are commonly contrasted in the current literature are the "psychometric approach" and the "anthropological approach." The former leans heavily on the psychological and astrological traditions of identifying intended outcomes and measuring how successfully these have been achieved. The psychometric approach is typified by the writings and work of Tyler[1] in the 1940s, and by many disciples since that time (perhaps including most workers in the field of programmed instruction). The "anthropological approach" to curriculum evaluation is of more recent vintage. It dwells on the principle that in evaluation there are so many variables in the learning environment that an attempt must be made to analyse this environment to detect the "significant" aspects which are likely to affect the success of a curriculum project. This success may be described in terms of implementation, amount of learning, or in some other way. An attempt to outline this approach to, or style of, curriculum evaluation is given by Parlett and Hamilton in their discourse on "Illuminative Evaluation."[2] It is possible to identify differences in the degrees to which each of these stereotypes of curriculum evaluation rely on measurement and on points of view, and many theorists and workers have tried different "mixes." However, it is not the intention here to provide a "Who's Who" or even an obituary of such pioneers. Nonetheless it is important to recognise that the evolution of the art of evaluation seems to be blurring the distinction between the stereotyped approaches. This is perhaps partly because of the decreasing influence, or the increased incredibility, of the lunatic fringes, and partly because of the increasing democratisation of the process of evaluation.

For many workers in the field of curriculum development the trend is still to give increased credibility to the anthropological approaches to

evaluation. This shift from the psychometric paradigm has been the result of pressures from a number of sources. Such sources have included the philosophical slogan that curriculum evaluation is essentially the process of collecting data which will help decision-makers make more informed (rational?) decisions. Another source has been the theoretical, and somewhat morbid viewpoint, that there can be no "rigour" without "mortis"—a sounding of the death knell on the formulation and measurement of the pre-ordinate objectives as the one way to evaluate a curriculum. It would be cynical to suggest that another reason for the acceptance of an alternative approach to evaluation has been the inability of decision-makers to understand the implications of psychometric information, hence their rejection of it. No doubt, too, the anthropological approach to evaluation has acquired currency because of the relatively unstructured framework in which the studies are conducted, and in the method of reporting the evaluation. Evaluators seem happy to engage in the dialogue allowed by this model, presumably because such dialogue offers them an opportunity to become involved with a surrogate peer group which any Freudian will admit has been missing from their "milieu" for some time This trend in the perception and practice of evaluation has been marked by a rash of "theories," "models," "paradigms," and other generalisations. Many of these are little more than solutions for which there are no problems; most offer useful perspectives on the task of evaluation; but none offer the complete acceptable framework for all evaluation studies. The reason for such models being partial is that, like most models in educational theory, they do not take adequate account of the particular context in which the study is taking place.

While from a theoretical viewpoint it seems eminently desirable to suggest that an evaluation activity should marry the relevant or desirable elements of both the psychometric and the anthropological styles, the broad issue of "balance" in the methodology of curriculum evaluation is not quite so easily resolved. Only when a clear statement of the purpose of an evaluation study is made, can an attempt be made to attain a satisfactory evaluation style. Until the early 1970s in Scotland, curriculum evaluation, if it could be recognised as "a happening" at all, was carried out mainly by members of departments of Education or Psychology in universities or colleges of education. The background of such studies has been "academic," and, until recently, evaluation procedures have been based more on "action research" than on the more descriptive or analytical nature of current evaluation practice.

In Scotland there is not yet a noticeable move to transfer responsibility for evaluation from academic institutions to local authorities and schools. Nonetheless there is a growing awareness at the practical level—one is tempted to say at the level of the real decision-maker—of the value of such studies. This realisation is perhaps inevitable at a time when the curriculum is being regarded more and more as a legitimate vehicle for implementing social policy. It could be argued that only when evaluation contributes to more responsible action does it become "good evaluation." The move towards such a situation will depend on both "decision-makers"

and evaluators." Halcyon days are coming for the "Evaluator Kings!" (Apologies to Plato, *et al.*).

In the academic world, ten years ago, it would have verged on bad taste to discuss the influence of the political arena in judging the success or failure of an innovation. To those involved in evaluation studies this is now an area of concern, and one which has evidently emerged as one for legitimate study. The problems which arise as a result of such a development are ethical as well as political.

Some of the political issues which arise in evaluation studies occur from a redrawing of the boundaries of responsibility and power in the educational scene, and in particular the changing access across such boundaries. It is difficult to describe the place of the evaluator in this cartographic exercise because of the necessity for each individual to come to terms with his own context in accordance with his various perceptions of that context. This may appear anomalous at a time when teachers are being asked to exercise more professionalism in the development of their own courses, and simultaneously are being made accountable for their pupils' progress. The exercise of personal initiative and power within the constraints of such responsibilities can be difficult, and the evaluation of any course or innovation must take account of all the forces which operate within the classroom even although they may derive from outwith it. These forces of freedom and accountability which seem to operate in different directions, are likely to cause tension in the conduct of evaluation studies. This tension may be identified at a number of different levels. For example, at the curriculum design stage the style of evaluation may be influenced by the attitudes of the designers to such variables as the aspects of the overall strategy for curriculum implementation or management, or pupil motivation or learning. Tension may be illustrated again in the perceived dichotomy which has already been referred to between the psychometric and anthropological approaches to evaluation. At a practical level the tension is recognisable in the changing kind of reporting of evaluation studies. The telephone directory scale of research reports which have been valuable at least in insulating and soundproofing the walls of ivory towers, has given way to a more comprehensible and effective style of reporting. This newer style is characterised more by its variety and its ability to communicate than by its dimensions. It is reporting by discussion and debate, and at times by the written word. To coin the phrase—the medium for reporting represents its message.

To those who are involved directly in evaluation, or who see themselves as "decision-makers," or other clients of an evaluation process, the issues which have been raised have obvious ethical implications. Is the evaluator a servant of decision-makers or of those who commissioned the evaluation study? Should he be independent of the vested interests of the people for whom he is carrying out the study? Should the techniques he employs be only those understandable by the clients of the study, or should he have the freedom to produce the kind of information he thinks most valuable, whether or not this can be understood by his clients? Since an evaluator must be selective in the kind of information

he collects and submits to his clients, should this be designed to highlight flaws or limitations in the curriculum, or should it avoid, or not consciously always seek problems? Should the evaluator purposely furnish information to affect decisions, or should he be purely descriptive or analytical irrespective of implied future decisions? Should the evaluator be free to make any decisions himself? In this variety of factors and issues it is likely to be difficult to find a formula which would reconcile the wide variety of views and interests which may be expressed. Yet it is important for the evaluator to find his own solutions, make his position known, and work within this context.

To analyse the broad national context of curriculum evaluation in Scotland in any significant detail would take too long. A number of observations on this context are, however, pertinent. Perhaps the most obvious paradox is in the perceptions of "the clients" of the evaluation process. To be effective the evaluator must be seen to influence action and, in effect, that means teachers. In fact, there is at best a one-way communication pattern from teacher to evaluator, and then to "the politicians" of education. There is some justification for suggesting that if evaluation is to perform a useful function then this pattern of communication ought to be reversed, or, more obviously, be transformed into a two-way process. Whether such a changed pattern would be successful in helping teachers become more effective is another question, the answer to which seems to depend largely on the style of the evaluation, its credibility with the individual teacher, the amount and type of personal contact between evaluator and teacher, the degree to which evaluation results confirm or contradict previously held views by the teacher, and so on. The influence of curriculum evaluation in the Scottish system is likely to be the most obvious at the level of national policy-making in curriculum development if it is going to be influential at all. In effect, this means that the Inspectorate, the Scottish Certificate of Education Examination Board, Curriculum Development Centres, and perhaps local authorities, are likely to be the main users of evaluation information. Part of the problem of seeing the value of evaluation in the future for individual teachers is not that it is irrelevant, but that it is not irrelevant (or different) enough from what they think they are doing, or ought to be doing, at present. Evaluation, if it is perceived at all by teachers, is perceived to be associated with research or it is what happens anyway in the process of teaching.

It might be claimed that all that evaluation can provide is a base level of generalised information. Teachers operate in *particular* situations, and their interest is rightly in these situations. Evaluators have too often attempted to remove that particular situation to fit a general hypothesis or model. They therefore operate at a level which is different and inappropriate for the teacher. To understand the actual and possible contributions of all the participants in the curriculum development process a clear view of the role of each person in the process is required.

To those involved in curriculum development it is a salutary thought that developments in the curriculum are perhaps not dramatic enough to have had an impact. Indeed if we are to believe that we are going through

a period of curricular metamorphosis, and this is no doubt why curriculum evaluation is with us, there is little need for any formalisation of methodologies in curriculum development or evaluation.

By now it must seem obvious that one of the most important contextual variables for the evaluator is the curriculum development. Such a realisation probably contributes to the psychotic nature of evaluators since curriculum development is wrenched between the means and ends of education; between the aims of a development and the aims of education; between the motives of the developer and those of policy-makers; between the values of institutions and the demands of society; among others. Curriculum development might be said not to possess an obvious unity because of the various activities going on under its name. Since curriculum evaluation is always a secondary activity to the primary one of development can it claim to be in a healthier condition?

Since in the future we will be faced with knowledge which has decayed at an exponential rate, we will be left with dead curricula. To avoid the prospect of living with their own skeletons, evaluators will no doubt continuously rejuvenate their craft to make it appropriate in catering for the prospect of curricula which are likely to be increasingly information-poor but educationally-rich.

## References


[1] Tyler, R. W. *Basic Principles of Curriculum and Instruction.* Chicago, University of Chicago Press, 1949.

[2] Parlett, M. *and* Hamilton, D. *Evaluation as Illumination: a new approach to the study of Innovatory Programs.* Centre for Research in The Educational Sciences, Edinburgh, 1972.

# Reflections on European Studies

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It is not the purpose of this essay to supply statistical details of European Studies in schools and colleges, or to list new courses proposed or set going since British entry into the EEC became increasingly certain. I have, however, tried in this period to keep myself generally informed about developments of this kind which have been numerous, ranging from proposals submitted to the regional boards conducting Certificate of Secondary Education examinations for pupils of 16, to the degree courses for which the Council for National Academic Awards accepts responsibility.

Faced with the task of reviewing a development which has become something of a mushroom-growth in the past few years, one is struck by the question-begging and confused thinking that pervades many approaches to European Studies. The small band of committed enthusiasts for choosing Europe as a focal point in historical, cultural and social studies has been joined by a growing number who see this development as a possible answer to some difficult educational problems. Amongst these must be mentioned the question of what to teach about France and Germany to those without much aptitude (or perhaps opportunity) for learning French and German; what to do to extend or revivify general studies for the 16 to 18 plus group; what kind of diplomas or general degrees to develop in colleges of higher education which are not universities. For all these motives, there is now a proliferation of proposals for work in European Studies.

An examination of a fairly large sample of proposals, or of schemes already in practice, or indeed of the work of committed centres or associations does leave one—at any rate, it leaves me—worried, and anxious to promote a dialogue about what it is that we are aiming to achieve. I have to take it that European Studies are a form of area study, and that, in one way or another, they *should* provide for integrated or combined study.

The first thing that must be noted is vagueness or confusion about the area itself. What is this Europe that is to be studied? Most schemes that I have seen are in fact concerned with aspects of Western Europe, and yet people seem extraordinarily reluctant to say so, for example, in the titles themselves. Confusion, after all, can be very elementary. "On January 1st 1973, Britain joined Europe:" "We're in," as one newspaper shouted. For many years to come, however, many of our schools, colleges and universities will be teaching what are apparently two separate and distinct affairs, called "British" and "European" history, from some date to some other date. A very considerable discussion can be opened up about the area itself that is to be the object of the area-study; one proposal for a non-vocational degree was concerned with "European and Russian studies." I do not wish to labour this point, but it is abundantly clear

to me that there is a lot of work yet to be done if these confusions are to be dissipated.

If the area question is vague equally so is the matter of educational aim: why, precisely, does one in any case wish to develop European Studies? One preliminary proposal I saw recently said: "To make people into good Europeans." This statement was dropped after discussion, but it does indicate the nature of the problem. Another theme put forward was "to enable a long-distance lorry driver to understand something of the countries he would be working in." Other schemes seem to have, as an implicit aim, the compilation, real or metaphorical, of a handbook of essential basic information about Europe—whatever Europe is, European civics, so to speak, instead of local civics. This kind of aim is usually an aim to be found in schools. In higher education, aspirations tend to be grander—but no less confused: or else no aim is stated at all, presumably because it is felt to be self-evident.

I am quite certain that aims must be stated, objectives delineated. Only when this is done can one decide which disciplines will help you to get there. The grouping of disciplines has to take place in accordance with the objectives and so there will be variable groupings. It is unwise to assume that a particular arrangement should be a permanency. Central to this is a clear mind about those for whom these "European Studies" are intended; from this will come the necessary thinking about methodology, resources and assessment. One must also remember that, whilst adults may decide it to be extremely important that pupils or students should "know about Europe"—or to use another phrase, "develop a sense of Europe"—those at the receiving end may disagree. Dictated or copied notes on the structure of EEC will be just as boring as dictated notes on how local government works. We have always been greatly concerned with what people ought to know, but in fact no limit can be set to what ought to be known. Students themselve may decide that European Studies are no more than extended parochialism, and that the whole world and its problems should be our theme for investigation. If there are strong curriculum pressure groups for European Studies, so also do they exist for World Studies, for "one world," for "international understanding," for African or Latin American or North American Studies. All face the same problem of defining their aims and deciding on the means necessary to achieve them.

The case for European Studies is not helped by the hidden motives occasionally to be found. These deserve some examination. What, for instance, is the place of what we call modern languages? One point of view maintains that they have no special role, especially if one keeps in mind that usually it is French and German that are in fact involved. It is not feasible to talk in terms of teaching French history in French, or talking about German institutions in German, but it is arguable that, for those who cannot actually do French or German, there is considerable educational value in learning about the customs, newspapers, railways, wines and cheeses of these areas. Another point of view, however, has

certainly been maintaining that European Studies *infers* a working knowledge of a European language other than English; and quite a number of schemes in this field have indeed been "masterminded" by the modern languages staff in schools. This raises the whole question of which tail wags what dog: who is taking over whom? Time and again, in looking at syllabuses and schemes, one realises that they have been drafted by the modern languages staff, or by the geographers, or by the historians and that a place has been found, one way or another, to bring in the classicists and others. This is a method guaranteed to build up resistance and opposition. It cannot be stated too often, or too emphatically, that any scheme of studies should be evolved by *equal partners*. This seems a very simple principle to enunciate until one sees how rarely it is operated.

What in fact are the objectives of European Studies if they are to be taken seriously and not as a grandiose name for more elementary exercises? Presumably they are to identify and study certain patterns of belief, principles for action, certain achievements in culture and technology that originated in and were developed in an area for convenience called Europe. It is difficult in an article such as this to gauge how much time should be given to examining "the idea of Europe." As an area it has had changeable frontiers; as a proliferation of ideas and achievements, it is possible to locate the places of origin and to indicate the complex patterns of development. Christianity is not of European origin but it has been for a long time the dynamic of European society. Archbishop Ramsey of Canterbury, writing in a special supplement of *The Times* on January 2nd 1973, said, "Europe was created by the impact of Christianity upon the declining Greco-Roman civilisation and the races which entered its territories. Europe both as a fact and as a concept was formed of nations which drew from Christianity their ideals for life and their conviction that man's existence here is the prelude to the hereafter culminating in a final judgement."

If this is an acceptable statement, it must be remembered that Marxism is also European, and that so is Humanism and Agnosticism. Europe has been indisputably the greatest power house of ideas in human history. Politics is European, and so is the system of musical notation. Industrialism and urbanisation are European. Nationalism is European; so is fascism; so is trade unionism—and so on. It is possible to compile this kind of list, from which an essentially thematic syllabus can be constructed. There are criteria to be satisfied, based on an incorporation of all the following cultural areas or influences involved:

(a) the Judaic—and the Islamic
(b) the Graeco-Byzantine, developing into the Slavonic
(c) the Roman-Carolingian
(d) the Celtic
(e) the Scandinavian-Anglo Saxon.

Perhaps the most important of all areas of influence, however, is the modern technological revolution that has transformed the world. In the writer's experience, few schemes of European Studies have grasped this, let alone explored and developed it.

Professor Douglas Johnson of University College, London, in an article in *New Society* (December 28th 1972), analysed the cultural elements in European life and reached sceptical conclusions about the validity of most of them. He went on to write, however, that "there is one characteristic that forces itself on our attention. That is technical progress. If historians, in their relentless search for origins, come to deny beginnings, no-one can refuse to accept that European technical achievements have no parallel in the past or elsewhere. . . what characterises European history is technical knowledge."

It is the identification of Europe with the Roman-Carolingian influence that is at the centre of many problems in European Studies. Sir Robert Birley recently recalled a speech by de Gaulle in 1952 that finished with the cry: "Back to Charlemagne!" and he pointed out that the frontiers of the Six were substantially those of the Carolingian Empire. It has been understandable that EEC has become synonymous for Europe, so that we have now "joined Europe," but can any scheme of European Studies that does not give proper attention to other areas and influences such as the Scandinavian-Anglo Saxon world really deserve the name? *How much* can be studied is a different matter, and at what depth, but can one *really* study nothing about Imperial or Soviet Russia, modern Scandinavia, Celtic separatism or the problems and achievements of European Jewry, to make a random sample?

No-one is sensibly going to propose a long slog through the affairs of all these areas or an analysis of all these problems, so it becomes essential to see whether a thematic approach would not permit exploration of many facets and situations in accordance with the age and abilities of those involved. In practice this will mean at the least an alliance of history and geography, social sciences, and religious education in schools—or divinity, philosophy and anthropology in higher education. Some of the central, unavoidable themes will be:

nationalism and stereotypes; industrialisation and urbanisation; the centrality of politics; the spiritual and cultural achievement.

The last of these raises the matter of literature in translation as a more urgent question than that of the place of modern languages.

"The European spiritual and cultural achievement" is a daunting assignment but in one way or another it has to be tackled; in which case the teachers of art, music, handicraft-technology and drama are going to be involved. In practical terms all this amounts inescapably to team teaching, to lead-lectures evolving into working groups, seminars, discussion groups; different disciplines will have their opportunities to set the stage and start things going, at different times. Obviously there must be a range from the fairly simple to the sophisticated, but I cannot see how European Studies can do less than what has been suggested so far. There are identifiable European achievements and European problems, European in origin and nature, even though they have spread to and influenced every other part of the world. Nationalism is European, so is fascism; pollution, immigration, "guest workers" and so on, are not.

One can, of course, study pollution in Europe, but it is not a European "achievement." I would not bother to make this kind of point were it not for the fact that I have seen such themes as main elements in schemes purporting to be concerned entirely with European Studies.

Our educational institutions have every right to propose or carry out a wide variety of curriculum development, but I have indicated what I would regard as the necessary criteria for European Studies. Less comprehensive or thoroughgoing schemes should be more accurately and modestly named—for example, French Studies: or Britain and EEC: or urban studies and so on. European Studies is clearly not a new *subject*. It is an area study, whether pursued very simply or at an advanced level, and it will absorb some of the time hitherto allocated to its constituent parts. As an historian, I can see that a good programme in European Studies could provide a more balanced study of fundamental European characteristics than is to be found in much existing teaching of British and European history; and I am assured that geographers and the others involved do agree with me. Nevertheless, in a school, for example, I would not wish to see European Studies *replacing* the separate disciplines: people need to have some training in them before (and after, of course, at specialist level) continuing this training *within* European Studies. An integrated study is the bringing together of those skills and disciplines necessary to understand a given situation or problem. It is a most exacting exercise; it is not an easy way out nor is it a happy answer to the problem of what to do with the less able. Its advocates must be quite certain that they can achieve through it what *good* separate discipline teaching cannot achieve.

The charge of "extended parochialism" is rather difficult to rebut. One answer is that, if European Studies of a genuine nature are extremely difficult to devise, to staff and to implement, then World Studies are vastly more difficult. Another is that, if time were to allow it, one area study should be paralleled by another: by African Studies, for example. Indeed, many schemes of World Studies do become simply two or three area studies: one has to be bold, brave and extremely intelligent to draw up and carry out an unremitting full frontal attack on the world, nothing but and nothing less than the world. For a school, or any institution of further or higher education, to commit itself to European Studies should mean that opportunities are opened up for drastic curricular re-thinking, for new alignments and groupings, for experimental explorations. Once a decision is reached in regard to which teachers are to be involved, none are central and none are peripheral: they are to be equal partners.

No major innovation can be embarked upon without a willingness to provide the necessary teaching resources. A considerable re-cataloguing and re-classifying of those already held will soon be seen to be essential, and a storage and retrieval system will have to be established.

Most educational institutions will feel—for better or for worse—that schemes of European Studies have to be connected to examination or assessment systems. The number of these is increasing all the time.

One examination development that should not be ignored is the International Baccalaureate, which is surely bound to grow in importance as students plan to move around more easily and frequently; and in any case it offers extremely interesting syllabuses.

Professor Trevor Roper wrote: "the new rulers of the world, whoever and wherever they may be, will inherit a position that has been built up by Europe, and by Europe alone. It is European techniques, European examples, European ideas which have shaken the non-European world out of its past—out of barbarism in Africa, out of far older, slower, more majestic civilisations in Asia; and the history of the world, for the last five centuries, in so far as it has significance, has been European history." Many may think that this is too dogmatic, but it provides a starting point for considering what the case for European Studies is—other than that we happen to live in Europe. It also reinforces the point I have made so often in this paper, that Europe is more than Western Europe, and that all its major achievements must be kept in mind in genuinely European schemes of work.

The following publications of the Council of Europe are relevant:

*History teaching and history textbook revision.* CCC 1967.

*Introducing Europe to senior pupils.* CCC 1966.

*Civics and European education at the primary and secondary level.* CCC 1963.

*Towards a European civic education during the first phase of secondary education*, 1969.

*Education and Culture*, 3 times a year.

There are many others listed in the Council's "Education in Europe" series.

Two further publications should be mentioned:

(1) *Education in Europe: Schools Systems: a Guide.* CCC, Council of Europe, Strasbourg, 1970.

(2) *Sources of Information on European Organisations.* DES 1972.

# Physical Geography in Scottish Secondary Schools

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The place of physical geography in schools at present is rather indeterminate. It appears to have a low priority in the Alternative syllabus and it is significant that the Headteachers Association of Scotland "strenuously criticised" the Alternative Higher for its "apparent lack of physical foundations." A central place in the "old" geography was held by studies of the physical environment, and the relinquishing of this place appears to be causing great anxiety among traditionalists. However, one wonders if the loss should be mourned for the realities were surely that such studies were barren consisting as they did of either gross over-simplifications (rift valley systems, for example) or a perfunctory glance at some of the exotica to be found in selected morphoclimatic regions (*e.g.* zeugens, yardangs, etc). I would argue for a change of emphasis from the macro-scale to the micro-scale but unfortunately local environmental studies is an unhealthy child in many Scottish schools.

The SCEEB Examiner's Report on Performance at the 1973 CSYS Geography Examination once again stated that fieldwork continued to be carried out abysmally by many candidates and that methodology was suspect with the remedy being more tuition in analytical and data collection procedures in SVI. This would seem to be too late. The grounding in fieldwork methodology should be given earlier—the analytical techniques in SVI. But when and how?

Fieldwork courses are the obvious answer and courses which should begin in the middle school. All Geography teachers know the administrative and other difficulties involved in finding time for such courses but assume for the moment that five days have been available for a fieldwork course as has happened at Penicuik High School. Most geography fieldwork courses revolve round industrial/agricultural/settlement studies presumably because they are easy to organise and give quick results which can lend themselves to easy elementary analysis.

Rarely are geology and geomorphology attempted and one wonders why. Are they too difficult?" Somehow beyond the conceptual framework of middle school pupils? As an experiment, a recent field-trip was centred on geology and geomorphology. The latter is a notoriously difficult subject where it is all too easy to reach facile, deterministic conclusions. This was avoided at all costs and, in actual fact, the pupils saw that the data they collected more often than not raised more questions than it answered. There was a strong bias on allowing the pupils to practise the techniques of data collecting in relation to the physical environment. Certainly such techniques and the subjects themselves were not difficult as the interest of the pupils showed.

The party comprised 15 pupils from SIII who, with one exception, were of average and above average, intelligence. This is a pitifully low number from those taking certificate geography but it is hoped that, by working in the environs of the school in future rather than by going to a residential centre, more pupils will be able to benefit. The pupils were thoroughly briefed on the data collecting procedures and the pitfalls which are inevitably encountered, *e.g.* the problems of selecting at random a sample of pebble deposits; the problems of using Cailleux's silhouette method of pebble analysis (this qualitative method was used as the involved arithmetic of quantitative methods would surely have discouraged the pupils). It should be stated that the data collection was not merely an end in itself: rather, it was hoped it would encourage an interest in the physical environment. The data itself was later to be portrayed using a wide variety of statistical methods.

Each day the pupils were supplied with a fieldwork notebook, 1:63360 O.S. map, a base map of the area of study on an approximate 1:10560 scale, a brief description of each of the techniques they might require; a check list of activities that might be attempted; clinometers, hammers, metal files, etc. Emphatically, there were to be no "talk and chalk" sessions merely displaced from the classroom where a crocodile of pupils would halt and a teacher would expound on the landscape or whatever before him and occasionally strike terror or silence into a child by asking him "What do you think happened here, then?" When teachers did accompany pupils it was to indicate places where data collecting techniques might usefully be employed or to attempt to answer queries the pupils themselves might raise. Each evening the data was sifted, put into graphic form and the day's events discussed. Whenever the question arose, as it inevitably did, the emphasis was placed on what *might* have happened.

In the geology field, there were several distinct interests:—

1. The pupils were to try data collecting techniques in the field. These included colour—scrape—scratch tests, measuring angle of dip of strata and slope of river banks, noting evidence of strata, presence or absence of grains. A far better method, surely, of discovering a cataclysmic event such as the Highland Boundary Fault by seeing the change in the angle of dip of strata moving away from the fault system rather than a chalk line on a blackboard stretching from Stonehaven to Helensburgh? Forces had contorted rocks as if they were plastic and yet hammer blows at conglomerate barely chipped the surface—a point not lost on the pupils.

2. They would note correlations between the rock types, stream flows, gradient of immediate river bank and its land use. They moved from schists through dolerite dykes and on to Old Red Sandstone.

3. It was hoped that they would not be content merely to chip at rocks and play with clinometers, but that they would be interested enough by their discoveries to want to enquire further. Happily, this turned out to be the case. Again it should be stated that the staff tagged

along as reservoirs of knowledge/encouragement to be used if needed. Some days the pupils worked entirely on their own.

4. We hoped that the pupils would gain an impression of the immensity of geological time and space. What better way to gain an impression of the insignificance of each person's life-span compared to geological time than to examine, in an abandoned Glen Esk cemetery, a gravestone composed of Old Red Sandstone (and the nearest such deposits were 10 miles down glen), to note that the man lived in the 18th century to an age of 48 years and to know that the headstone is 400 million years old?

A field-trip with no reference to human geography would have been too arid and esoteric and reference was made continually by the pupils to the cultural landscape, *e.g.* sandstone weathers faster than schists and yet many local houses are made of sandstone—why?; would the mill wheel of an abandoned, derelict mill have been made of dolerite?; sandstone seems to weather to a good soil, etc.

As far as the geomorphology was concerned, there were two areas of interest: a recognition of glacial features studied in the classroom and, secondly, an attempt at river/coastal studies. It is a truism that no amount of visual aids can describe the grandeur of a corrie as adequately as looking down several hundred feet from a snow-flecked ridge into one. Apart from measuring slope angles and applying pebble silhouette tests to drift and odd scree deposits, no landscape measurement techniques were used. One pupil was impressed by the vagaries of the random dumping of glacial till and indicated a field where seedlings struggled through unsorted boulders whilst its neighbour was virtually boulder free. The fact that the farmer may have cleared this field at some point did not destroy what to him was a valid conclusion on the environment from the evidence before him.

River studies were attempted as it was possible to follow some virtually from source to mouth but also because within a relatively short distance were found a wide variety of river types—from mountain torrents to lowland misfits. The usual measurements—width, depth, velocity, etc.—were attempted. No attempts were made at hypotheses testing as this was felt to be beyond the pupils in SIII given the host of variables involved.

Before attempting an analysis of the success or otherwise of this venture, it might be said that past experience has shown that there is a tendency to attempt too much during a field week; a reaction perhaps to the relative rarities of such events in some schools. One advantage of this one was that the techniques, methods, aims and objectives remained virtually the same throughout; the study localities changed but the principles did not. Through repetition, the children became skilled at the techniques and more adept at recording the data.

Some results of the course were very pleasing. The pupils gained a greater insight into the world about them. As one girl succinctly said "Stones are no' just stones anymore." Some of them seemed to want to transfer their experiences into their leisure pursuits, *i.e.* hill walking might

become more than just physical exercise. They assimilated the terminology and Cailleux's silhouettes are now put to use in describing their friends body shapes, *i.e.* plump boys are now "well-rounded!" They saw that rigid conclusions were dangerous and that, in the context of something as complex as the physical environment, "might have" is more acceptable. They saw that rivers alter the landscape as surely as glaciers and that rock types affect coastlines. They discovered that life in a glen is radically different to urban life and more directly affected by the physical environment.

Everything was not an unqualified success. It was hoped that they would be able to handle a sorting test using a measuring jar, water and a measured sample of material chosen randomly from various deposits, the aim being that they should see that water borne materials were highly sorted compared to till from a cultivated field. The tests were very badly done with the main faults being in the timing. This technique will be dropped in future. The evening sessions were not as successful as hoped. On some occasions the statistical representations were beautifully done but at other times their attention span was short and they preferred the social activities to working. A choice might have to be made between cutting down the time spent on fieldwork proper thus giving more time for data analysis or maintaining the status quo and leaving a lot of information for later analysis. The latter is probably the better course. Get them into the field. Let them chip at lavas and sandstones, sort pebbles in a meander loop, measure river velocities. However, a good classroom follow-up can be pre-empted by the limited time available. After all, how long can a group of pupils be removed from the normal certificate class syllabus?

A glib answer would be to suggest that it should be made examinable but this would be to ignore the realities of both the traditional and alternative syllabi. (There is some scope in the Alternative Higher under Field Study Exercises (3) and (6) but it is limited.) It is interesting that while the commitment to physical geography appears to be declining in Scotland, the Schools Council 14–18 Project—London Consortium Syllabus, as well as including the Scottish trend towards network analysis, urban geography and so on, has Unit One devoted to physical geography. An integral part of this is a study of the drainage basin as a system with an emphasis on locally based studies—and this in an urban area! The macro-scale studies of the traditional Scottish Higher syllabus are not as important as micro-scale studies which then lead out to the wider level. By making fieldwork on physical geography examinable they will ensure its survival. But what about Scotland?

Certainly in Penicuik these studies will be continued, and, it is hoped, expanded. Residential centres need not necessarily be used. A five day period is not required. The time could be found by careful arranging of double periods to come before lunchtime or 4 p.m. An integrated studies approach with Science or even Mathematics would further increase any time allocated. Finally, the expansion of leisure activities could offer further scope for a "field-studies" approach. More pupils can and must be reached for this is the best education for concern for the environment. Out of an understanding, at however simplified a level, of the physical world comes a concern for that world. What better educational aim could there be for geography teachers?