BRITISH COUNCIL

TeachingEnglish

ELT-40

Projects in Materials Design

Milestones in ELT

Milestones in ELT

The British Council was established in 1934 and one of our main aims has always been to promote a wider knowledge of the English language. Over the years we have issued many important publications that have set the agenda for ELT professionals, often in partnership with other organisations and institutions.

As part of our 75th anniversary celebrations, we re-launched a selection of these publications online, and more have now been added in connection with our 80th anniversary. Many of the messages and ideas are just as relevant today as they were when first published. We believe they are also useful historical sources through which colleagues can see how our profession has developed over the years.

Projects in Materials Design

In this 1980 collection in the *ELT Documents* series, authors engaged in different projects share their experiences of producing, adapting and using English for specific purposes (ESP) materials. This was a time of rapid expansion in the field, with a corresponding multiplication of teaching challenges and attempts to find solutions. A range of contexts are discussed by different authors, from English for French Baccalauréat students, to ESP programmes in educational institutions in locations as varied as Hawaii, Hong Kong, Indonesia, Mexico, Saudi Arabia, Tanzania, Tunisia, the UK and Venezuela. Different chapters look at materials and course design, approaches to teaching reading, publishing projects, and the running of a language centre. Authors acknowledge the difficulty of accommodating various stakeholders, and challenges including resource-poor contexts, teacher isolation, and conflicting methodologies. At the end of the book there is an author Index to the *ELT Documents* series, 1971–1980.

ELT documents
SPECIAL

Projects in Materials Design

The British Council

ELT documents
SPECIAL

Projects in Materials Design

The British Council
ENGLISH LANGUAGE DIVISION CENTRAL INFORMATION SERVICE

ISBN 0 900229 67 5

Produced in England by The British Council, Printing and Publishing Department, London

3M/8/80

CONTENTS

INTRODUCTION

The papers collected under this title have not been assembled with the over-riding objective of searching out new discoveries. The aim has rather been to illustrate, by the variety of the projects described, the insights gained from experience. By highlighting differences in technique, style and approach to materials design, the degrees of experimentation and orginality demanded by individual teaching conditions can be observed.

The off-repeated apologia of the ELT materials designer — that commercially-published materials are inadequate and/or not available for his specific teaching task — draws validity from the breadth of the educational spectrum covered in the present-day state of the art. Recent very rapid expansion of commmercial ELT publications have not solved the recurrent problem of suiting the teaching materials to the needs of the learner. Documentation of different methods adopted for different actual cases is not easy to come by, the teacher being too pre-occupied with his present classroom and students to write about what he has done in the classroom with the students in the past.

The common factor of all contributions to this issue lies in there being a record of past experience. The writers/designers, bringing their projects under close scrutiny here, have willingly placed themselves in an evaluating role that is not always easy to adopt.

Elizabeth Smyth

COMMUNICATION IN THE TECHNICAL CLASSROOM

'You just shove this little chappie in here like that'.

Tom Hutchinson and Alan Waters University of Lancaster

Introduction

In 1977 we were considering what teaching materials to use for a group of Iranian students who were coming to the Institute for English Language Education in Lancaster, prior to commencing their studies at various technical colleges in Britain. Commercial materials in their specialisms were available, but these were aimed primarily at degree-level students, whereas our students were preparing for technical-level courses leading to OND qualifications*1*. Since further groups of such students were expected at the IELE we decided to find out whether the available ESP materials were suitable.

We got in touch with Lancaster & Morecambe College of Further Education and set up a liaison scheme which enabled us to observe and record a variety of lessons, examine syllabi and course materials and talk with staff and students about their work. In addition, we studied the information put out by the Technician Education Council (TEC), the supervisory body for technical education in Britain.

Although we had originally gone to the college because of a concern about the level of teaching, what we learnt there led us to seriously question the whole basis of current ideas and materials in ESP. Our ideas have subsequently been confirmed by discussions with the staff of Fleetwood Nautical College, Lancashire, with whom a similar liaison scheme has been established, by the study of the syllabi of a number of other technical colleges and by feedback from our former students.

The end result of this research is a set of teaching materials, examples of which are discussed in this paper. These, we feel, reflect more accurately what the prospective technical student needs as a preparation for this technical studies.

ESP: The Current Situation

Current ESP materials derive their textual input from the student's proposed course of study: 'English for Mechanical Engineering', 'English for Maritime Studies' etc. There is some divergence of opinion (Widdowson 1978) over whether the materials writer should use authentic texts or should create his own simple texts. Nevertheless the emphasis is invariably on the 'specific purpose' — on the subject area.

This approach has a high face validity: what could be more relevant to the potential mechanical engineer than texts on Mechanical Engineering? But, in practice a number of problems arise.

Input material taken unadulterated (or nearly so) from the technical course presents difficulties over content. Firstly, a text does not exist *in vacuo* but has a position within a body of knowledge. The technical teacher does not suddenly produce a text on, say, transistors; this text will form part of a lesson (usually, involving an initial demonstration), which in turn will form part of a series of lessons on the basis of radio communication. In the 'authentic' situation, therefore, much of the work of understanding the new text will be achieved by reference to other parts of the lesson and to previous work in the series. Coming to it 'cold' in the EFL classroom, the student is denied these contextual clues. Comprehension is, therefore, more difficult, and what is of greater long-term importance, he is less likely to develop the strategies that will enable him to exploit such clues.

Secondly, if language use in the classroom is in any way to simulate real communication there must be discussion of the subject matter, and this will inevitably stray beyond the actual text being studied. Yet, the EFL teacher often does not know enough about the subject matter to be able to handle this sort of situation; nor can the EFL institute generally provide the technical back-up needed to do so. Thus, the technical knowledge becomes de-contextualised; classroom work gets bogged down in matters that neither teacher nor student fully understands; time is wasted in trying to explain specific vocabulary without the visual aids and expertise that the technical college can produce. As a result, there is little hope of any lasting language assimilation.

If, on the other hand, the ESP materials writer produces his own simple texts (eg 'English in Focus' series) the content may become so insignificant that there is nothing for the students to grapple with: they already know what the text is telling them. Without new information in the content, the materials cease to hold any communicative value and become just a package of exercises in discourse analysis. (cf Coulthard, 1977).

The dilemma over content is compounded by the fact that ESP texts have tended to be of the 'academic' type. Because of the highly formalised style of such texts, the emphasis inevitably falls on the structures and conventions of scientific writing, to the detriment of overall fluency. The conventional is stressed against the communicatively acceptable.

Why ESP?

Faced with this situation we must, despite its apparent validity, question the whole concept of ESP. Does EFL work need to be subject-specific?

As far as technician education is concerned the argument for subject-specific EFL work is at once seriously undermined by the fact that the first year's work in most technician programmes is more or less the same, irrespective of the craft title of the course. It is of particular significance to the ESP course designer that this wide band of common core subjects is concentrated at the outset of the course of technical studies, at the interface with the preparatory English course. It is into this situation that the student enters immediately and which is, therefore, the prime target.

But there is a much more fundamental presupposition inherent in the concept of ESP which must be considered. The question is not whether the content of Mechanical Engineering is different from that of Telecommunications, but whether the study of Mechanical Engineering texts is the best way of preparing a student for a course in Mechanical engineering. The factor that should determine the ESP programme is not the subject itself, but the way in which that subject is received by the student. In the technical college (and here they may be a significant difference in degree from the university) this means the way in which the subject is interpreted for the students by the teacher.

Before he can start to teach a group of students the teacher must first make an analysis of what the students already know (cf Schegloff 1971). On the principle of proceeding from the known to the unknown the teacher will take the result of his analysis as the basis on which he can build the new structure of knowledge. He will use what the students already know to explain, exemplify and contextualise the new information that he has to convey.

If the student does not possess the knowledge that the teacher assumes he has, he will find it very difficult to understand and remember the new information that is given on the basis of that assumption. To take a very clear example from one of the lessons observed at the college, the teacher, when describing a distance, defined it as 'about the distance between the wickets in a cricket pitch'. The assumption here is that the student is familiar both with the terms involved and the distance referred to: the illustration will only make sense if he has this knowledge.

If we are to prepare the overseas student adequately for technical instruction what we need to give him is the essence of the knowledge that the teachers assume he already has. One assumption that the teacher will not make, is that the student is familiar with samples of the material he will have to deal with on the technical course. The entrance requirements for all TEC programmes[2] are very similar and bear no relationship to the craft titles of the individual course. Teachers cannot therefore assume any prior knowledge of the specific subject.

The ESP materials writer should look at the work the students do at the technical college, not in order to obtain samples of input materials, but to gain an insight into the teaching strategies that are employed ie to find out what the teachers assume the students already know and how this knowledge is used to interpret the new information of the specific subject.

In the next section we shall report on what we discovered about this pre-requisite knowledge from our observations at Lancaster and Morecambe College of Further Education.

Teacher Strategies

Most of the information the student will receive at the technical college will come from the teachers. Written sources are used, of course, but they form a relatively minor part of the actual input compared to what is normal on a university course. It is important then to give the students the ability to cope with the technical material as it is presented by the teacher.

For the purposes of analysis we can consider four aspects of teacher strategies: the mode of presentation and three areas of pre-supposed knowledge:- linguistic, factual and what we might call graphic ie familiarity with visual forms of presentation. The relationship between these aspects and the new information is extremely complex, but for practical purposes we can look at each aspect individually:

1 The Mode of Presentation

The main form of presentation in technician level education is audio-visual — the Practical Demonstration (Hutchinson, 1978). the teacher does not just give a lecture **about** a machine, he **uses** the actual machine or a model of it as an integral part of the delivery: when describing a process, he carries out the process, explaining each step as he proceeds; to teach a scientific law he uses models, apparatus, charts, diagrams etc. the presentation revolves around a visual display.

The importance for the discourse of the presence of a visual display can be easily appreciated. Language ceases in effect to be the primary element in the communication: it takes on an interpretive role — explaining, highlighting or contextualising what is visually observable. It is only meaningful when related to the visual. The normal roles are reversed: instead of a picture illustrating a more or less self-sufficient text; in a practical demonstration the verbal text illustrates the visual display.

This change in roles has two significant effects. Firstly, the visual display and the actions of the teacher relating to it provide the structure for the

discourse, determining through the inherent logic of the process or apparatus itself both when and how the different elements will be presented. For example, in explaining how a pump operates the teacher needs only to show by means of a model or diagrams the cycle of events and comment on each step of the process: the visual display provides the structure.

Secondly, the visual display carries a large proportion of the meaning load. Because the speaker can rely on the visual to provide the specific meaning of what he is saying, the language of the practical demonstration lacks the precision of reference and the rigorously formalised structures normally associated with technical discourse:-

a There is extensive use of reference, usually accompanied by appropriate gestures or actions eg 'You just put this in here like that', or 'You do this as you can see by just twiddling these little screws here'. It is not uncommon to hear very colloquial pro-forms, such as 'This chappy here', 'the whatsit' or 'this little lot'. Verbally unmarked shifts of reference between the text and visual display are frequent eg:

'... it is convenient to use one part of the circuit as a reference potential and this[1] is termed the earth. This[2] is normally chosen in some point like this[3]. This[4] is the zero or reference potential or earth of the circuit'.

(excerpt from data in Hutchinson, 1978).

As will be noted 'this' can refer anaphorically to the text (1 and 2), to the visual display (3) or to a combination of the two (4). Only the teacher's use of gesture marks the distinction.

b Apart from the predictably wide use of reference, there is also a similar lack of precision in the kind of vocabulary used; a great variety of synonyms is noticeable. Instead of the standard technical term, 'locate', as in 'locate cutter in sleeve', we find a number of variations: 'put', 'push', 'shove', 'stick', 'slot'. In a demonstration using a 'dial test indicator', the teacher referred variously to 'the DTI', 'the dial', 'the indicator', 'the instrument', 'the meter', and even 'the clock'.

c Looseness and variety of form can also be seen in the grammatical structure. In written discourse instructions are normally given in the imperative or the passive form, eg 'The drill is inserted' or 'insert the drill'. But in spoken discourse it is quite normal for the teacher to use not only these forms, but a whole range of structures with different subjects and tenses; and these can be varied at will even within the same text. The example quoted could be represented by: 'You insert the drill', 'We

insert the drill', 'Just insert the drill', 'We can now insert the drill', I am inserting the drill', 'Inserting the drill', 'I have now inserted the drill'. This variety has no effect on the function, which derives from the whole context of the lesson and the mode of presentation. Any of these examples can function as an instruction, because it will be clear from what the teacher is doing that the object of the demonstration is to give a set of instructions. The structures used are of little importance.

With a visual display as the focus of a demonstration there is no need for the teacher to strive for self-sufficiency in the verbal text. Vocabulary and form can be varied, because a gesture, an action, or simply the visual presence of the referent will make the meaning precise. The total effect is for the language of technical instruction to move away from the specific terms and structures that characterise written technical discourse towards a more conversational mode, in which non-verbal clues are of paramount important.

The following two texts show the difference clearly: text (a) is an excerpt from the transcript of a demonstration in using a lathe for centre-drilling a component; text (b) is a set of instructions for the same process taken from a workshop manual:-

a

Now I have to change to the final size drill I require, which is three-quarters of an inch diameter, and this is called a morse-taper sleeve.

A slower speed for a larger drill.

Nice even feed should give a reasonable finish to the hole.

Applying coolant periodically. This is mainly for lubrication rather than cooling.

Almost to depth now.
Right. Withdrawing the drill.

That's fine.

b

1 Select required drill.
2 Mount drill in tailstock. Use taper sleeves as necessary.
3 Set speed and start machine spindle.
4 Position tailstock to workpiece.
5 Apply firm even pressure to tailstock handwheel to feed drill into workpiece.
6 Apply coolant frequently
7 Drill hole to depth.
8 Withdraw drill.
9 Stop machine.

If ESP materials work only from written texts the visual-dependent character of technical instruction is lost and the student has little experience of the terms, structures and multi-media presentation strategies

used by teachers. At the same time the use solely of written texts and their rigorously conventional style obliges the student to learn and practise specific vocabulary and discourse patterns, for which he will have a very limited need, while denying him the opportunity to develop the strategies he will require in the major part of his studies.

2 Linguistic Competence

Before discussing this aspect of the students' needs it is necessary to make a clear definition of the term 'technical'. When we refer to Technical English do we mean 'the English specific to a particular area of knowledge' or 'the English associated with science and technology'? The two are not necessarily the same. Let us look first at the question of vocabulary.

a Every area of knowledge — be it Nuclear Physics or Needlework — has its own specific terms known only to students of that discipline. On the other hand many technological or science terms are in common currency. Take for example the words 'ignition', 'piston', 'fuse', 'condensation', 'pollen', 'meander'; few native speakers would not know what they mean. In fact, simply because we live in a society based on technology and scientific-awareness, the average native speaker has available to him a considerable range of 'technical' vocabulary.

Which, if either, of these two kinds of technical term does the foreign student require?

We have seen that in the practical demonstration language lacks the precision normally associated with technical discourse. But this is not solely because of the presence of the visual.

In fact, teachers seem to avoid specific technical terms in favour of more general vocabulary, or, if a specific term is used, a check is made to ensure that the students know what it means. This check can take the form of a question, a para-phrase or a simple statement of the name eg 'Now copper is a ...

. . . is very ductile. What do we mean by ductile?

It'll stretch.

We can stretch it. We can change its shape. Yes.

'It's out of true, in simple terms it will wobble about'.

'And this instrument I'm using now is called a micrometer'.

The student does not need the specific vocabulary of his subject area prior to starting his course. He nees the ability to recognise the 'glossing'

techniques whereby teachers' introduce specific terms and the ability to ask questions when an explanation is not given. But the basic resource of both these strategies is a fund of the general vocabulary terms in which the explanation will be expressed.

If, for example, a student had asked in the quote above: 'What does 'out of true' mean? he would probably have received the answer: 'It means it will wobble about'.

With regard to scientific or technological terms the position is quite different. Teachers expect students to be familiar with the language of what we might call 'popular technology'. This is difficult to define precisely, but an approximate indication would be the linguistic competence required to understand TV documentaries (eg Horizon), the information and instructions for the consumer that accompany electrical goods, leaflets, eg on Energy Saving, issued by government departments.

In the observed sessions teachers made free use of terms within the following areas: building (bricks and mortar, pedestal, column, gutter, spire, bench), trades (joiner, bricklayer, surveyor), car mechanics (crankshaft, bonnet, clutch, flywheel, brakes, hose), parts of the body (heart, kidney, biceps, vocal chords). None of these was directly associated with the topic of the lesson. They were all used as examples or illustrations.

When we say that student needs Technical English then, we should be quite clear that, as far as the technician is concerned, what we mean is not the specific vocabulary of his own subject, but the general language of the technologically-aware consumer society. For the materials writer the point of interest here is that the language students need is found not in academic textbooks but in the everyday media of Western society.

Before leaving the subject of vocabulary it is worthwhile making a general point about reference to other areas of knowledge in Technical English. We should not lose sight of the fact that the language of modern technology is a development of Anglo-American culture. It is not an artificial, cultureless code, but an adaptation of the existing resources of the English language and the culture this reflects. Terms are freely transferred from one area of technology to another and also borrowed from non-technological areas. Take, for example, a description of a hovercraft: it is said to ride on a **cushion** of air, which is enclosed by a rubber **skirt**; or we have one of the most recent pieces of linguistic borrowing in the silicon **chip**.

So it is not simply a case of teachers making active reference to other areas of knowledge, Technical English by its very nature makes such references.

What implications does this have for the student?

Firstly, references to other areas of knowledge are an important aid to comprehension. Things already familiar to the student can be used to contextualise, exemplify or illustrate a new idea.

Secondly, the association of ideas makes new information easier to retain, since the human memory operates by the association of one idea with another

This last factor puts the foreign student at a particular disadvantage. If, for example, the students are learning the names of parts of a lathe, they will meet the three terms 'headstock', 'tailstock' and 'saddle'. Even without knowing what they are the native speaker could make a pretty good guess and when confronted with the actual lathe would have no difficulty in relating the terms to it. The headstock and the tailstock are obviously at different ends of the machine; the headstock should be the end where the work is done. '-Stock' indicates a heavy piece of machinery which can be pushed against. The saddle would be between the tailstock and the headstock and go across the lathe.

The native speaker simply has to widen the application of known concepts. The foreign student, however, is in a very different situation. If he were unfamiliar with the words 'tail', 'stock' and 'saddle', he would be faced not only with three new words, but also three new concepts unrelated to the rest of his knowledge. He is therefore denied the memory association which makes the assimilation of the terms so easy for the native speaker.

To sum up, then, it is not, desirable to restrict the input for the foreign student to the subject area of his particular discipline. A large number of terms have common currency in both technical and non-technical situations; references are made from one technical field to another, and even with specifically technical terms a knowledge of general vocabulary is an important aid to comprehension and memory.

b Structure: As with vocabulary, the kind of discourse structure that teachers expect students to be familiar with is that found in the audio-visual demonstration and that of the simple written texts students would

meet at school, in magazines and in consumer-oriented technological information. They neither expect nor exploit an ability to analyse 'academic' texts; firstly because the flexible entrance requirements mean that not all students will be familiar with this text-type, and secondly, because it is not representative of the kind of work done at the technical college.

Although it is something of a side issue to the main theme of this paper, it is of importance for the production of ESP materials to note that with regard to the kind of discourse students could produce, teachers expressed most concern about overall coherence — the ability to produce a description or report that proceeded in a logical fashion from introduction to conclusion. In describing a piece of equipment students (both native speakers and foreign students) had difficulties in determining the order in which the elements should be introduced; in reports they failed to say what they were trying to do or what they observed; in explaining a process they ignored the logic of the process itself and put down the steps in an apparently haphazard order.

This macro-level was of most concern to teachers, because this level best reflects whether the student has really grasped the concepts involved (cf Swales 1976). The students, in effect, fail to impose a coherent structure on the information they receive and produce.

ESP materials should concentrate on developing in the student this ability to structure information: in simple terms, to get the essential bits of information in the right order. Without this skill both comprehension and production will suffer.

This is a very important area in which much work still needs to be done. It will, hopefully, be the subject of a future paper.

3 Knowledge of the World

We have noted above that teachers refer across areas of technical knowledge to illustrate their new information. This use of reference, of course, entails not simply knowing the term, but also the concept it embodies. References to other areas of technical knowledge might be expected, since there is a great deal of common ground between various technical fields. However, many areas of reference are not technical at all, but cultural. British history, social institutions, current problems, geography, religion etc, are all used for comparison or contrast, to illustrate and contextualise new information.

It is a common strategy for teachers to put scientific knowledge into a

historical perspective eg the introduction to a lesson on 'levers' that we saw went as follows:

> 'I suppose the first person to discover the lever was some stone-age man who leant on an old tree trunk and found he could shift a boulder with it'.

In the observed lessons there were references *inter alia* to King Solomon's temple, Greek Legends, Edward the Confessor, Henry VIII, the (Second World) War, Faraday, Newton, Brunel and the Industrial Revolution.

Cultural references are frequent, too, eg:

> '.... about the distance between the wickets on a cricket patch'.
>
> 'What would have happened if some vandal had come along and sawn it in half?'
>
> 'They might have been building a mud hut'.
>
> '.... a jemmy, like you see burglars using in cartoons'.

References were also made to such specifically British institutions as Parliament, the church, towns and regions in the UK, TV programmes etc.

This contextualisation of technical knowledge is clearly based on the presupposition not simply of a shared language but also of a common culture and education. They cannot be dismissed as mere trimmings — non-essential decoration on the cultureless technical cake. They form part of the strategies teachers employ to make the technical information more meaningful and easier to remember. If the foreign student does not possess the knowledge that is referred to he is being denied an important aid to comprehension and to memory.

The point for the ESP materials writer to note is that, as with the actual language of oral technical instruction, the knowledge of the world that teachers call upon is not specific to the subject under study.

4 Graphic Competence

Of major importance for the technical student is the ability to comprehend and produce the standard modes of graphic representation: charts, diagrams, graphs, perspective drawing, plans, maps, flow-charts etc. These are as much a part of technical communication as the language itself, but it must be remembered that these modes of presentation are also the products of Western culture. Teachers can assume that the student is familiar with them, because they are so widely employed in Western

society. Students from societies without these traditions, however, must be given specific training in their use, and this training should be an essential element in the ESP programme.

Conclusion

A pre-sessional EFL course should aim to give students the means to assimilate the flow of new information in their technical course. This requires looking closely at the work which the students will be expected to cope with, not, however, as currently happens, in order to gather texts for EFL materials, but rather to discover what the teacher assumes the students already know: their linguistic knowledge, their knowledge of the world and the strategies that native speakers can bring to bear on the communicative input. The ability to cope with a course in Electrical Engineering derives not from having studied texts on Electrical Engineering, but on having the pre-supposed knowledge into which the teacher keys the new information. This pre-supposed knowledge does not include familiarity with the content or vocabulary of the specific course of study.

In short, we need to make a distinction between the **actual** knowledge received from the technical course and the knowledge **potential** required to cope with it. It is the potential that is the proper concern of ESP work.

Pedagogic Implications

By looking not just at the technical course, but at the basic knowledge and strategies required to fulfil such a course, a number of points arise which cause considerable doubt on current ESP materials. For the technician these imply:

1 The differentiation in trade qualifications is not reflected in the content of the courses. The entrance requirements for all technician courses are similar, the first year's work covers the same ground, and more importantly the teaching methods are the same irrespective of the subject. There is then no need for discrete courses in English for each subject.

2 Communication in technical education is predominantly oral and visual-related. The precise vocabulary and structures of 'academic' texts are largely irrelevant to this. Students need instead to develop a fluency in handling visual-related discourse, in particular learning how to structure information logically, how to use their existing vocabulary resources, rather than expecting to always have the specific terms and how to exploit the visual clues of the presentation. The stress, therefore, should be on group work — discussion, simulations, problem-solving tasks and

presentations to the group or class (cf Buckley, Samuda and Bruton 1978).

3 Source material should be taken from all the different media to which the native speaker student will have been exposed to by virtue of both his education and his living within a Western society. Some very fruitful sources are:

TV documentaries (including schools programmes)

Popular science books (eg 'The Penguin Book of the Physical World')

Children's science books (eg Ladybirds)

Do-it-yourself books, leaflets and advertisements

Information issued by the nationalised industries and large manufacturers of consumer goods.

School science courses (eg the Nuffield Science Project).

4 The textual content of the materials should cover a wide range of topics. Our own research has shown that the following are rich sources of reference:

The basic functions of a car (**very** frequently used for example and analogy).

The applications of technology in the home (electricity, heating systems, basic construction, insulation, refrigerators etc).

Technology in society (energy resources, transport, materials, bridges).

Simple science (human biology, lenses, air pressure, acids and bases, heat).

Basic geography (earthquakes, the planets, the weather).

Mathematics.

Many of these topics might seem hopelessly remote from the student's course of study, but they represent aspects of science and technology that the average native speaker with an interest in technical matters would have at least a nodding acquaintance with. Furthermore, they offer distinct practical advantages: firstly, source material is readily available in the consumer oriented media. This offers not only a greater variety of texts, but also makes project work much easier; secondly, since the topics are non-specific, the EFL teacher should be able to handle them easily, and in group work every member should be able to make a useful contribution.

5 Equal weight should be given to graphic forms of presentation both in input material and in what the students produce themselves.

Illustrative Materials

The materials in this section are taken from a pre-sessional EFL course, which we have called simply Technical English. The course consists of 14 units each divided into 4 or 5 sections and providing 8-10 teaching hours. It is followed by a shorter 10 unit series called Workshop English, which focusses more closely on teacher strategies *per se.* Workshop English is the subject of an earlier paper — Hutchinson, 1978.

Although the materials are called Technical English, this does not exclude non-technical aspects of a topic. For example, the unit on Metals includes a section on the Discovery of Metals, which has a clear historical slant. The main theme of the materials is technology, but we have taken as broad an interpretation of this as possible, with the emphasis on general knowledge and the everyday applications of science and technology.

Each unit is topic-based, working on the principle that the purpose of a text is to give information not to represent a particular text type. This kind of organisation facilitates more complex work, since a body of knowledge about the topic is built up through the unit.

This does not, as might be suspected, make the language work haphazard. The topics impose their own structure in this respect; units on light and sound lend themselves to theoretical descriptions, pumps and engines provide practice in describing sequence.

Most of the input, for practical reasons, is from written sources (the ratio of written to video material is about 3:1). The emphasis, however, is not on the close analysis of the texts, but on extracting information from them for use in discussion and simulation work.

The materials are sequenced in terms of the difficulties raised by their topics; there is a progression from simpler to more complex both within each Unit, and throughout the course as a whole. The criteria for determining relative ease or difficulty of topic have largely been intuitive, although certain sequences, such as 'Sound and Wave Motion' preceding 'Light', have obvious scientific justification.

The final task in each Unit is a student presentation which requires mastery of a communicative macro-function, such as describing a process, reporting an experiment, formulating a policy, recommending a solution, and so on; the Unit topic is the prime determiner of the communicative

focus. Information, skills and strategies required for the completion of this task are built up by a series of linked steps as the students proceed through each Section and the Unit (Sexton: 78).

Unit: Meteorology, Section A: Water and the Atmosphere

This first example shows how consumer information can be exploited as stimulus material. The initial input to the section is a text on 'humidity'. To generate discussion of the ideas in the passage within a familiar context, the students are then required to perform a group-work task on condensation in the home. They are divided into groups of three and each member of the group is given one of the information sheets below, which were made up from a leaflet on double-glazing obtained from a Do-It-Yourself shop.

Without showing their sheets to each other, their task is to prepare two lists, one of the causes of condensation, and another of its cured in relation to a particular part of the house, eg the bedroom. Each group works on a different part of the house to maintain a communicative element in the final presentation. Finally, each group presents its findings to the others, illustrating the report with blackboard sketches as appropriate. Discussion is therefore generated at two levels, both within the group and in the class as a whole.

The same technique can be applied to more complex tasks as the students become more familiar with it (see below, page 29).

Unit: Materials, Section B: Synthetic Fibres

The Unit on Materials focusses in terms of language function on the ability to preresent a process both verbally and graphically. The interpretation of written and graphic information describing a sequence of events is a convention of many recent ESP courses. In the materials which follow, however, this traditional input has been given a different emphasis. Students are required not simply to transfer information from one medium to another but also to consider the advantages and limitations of each format and to present information using both verbal and graphic in an integrated whole.

In the first section of the Unit students are introduced to the concept of the pictorial flow chart in the context of the processing of natural fibres. In the section included here the interpretation of what the symbols represent and the relationship between the different stages in the sequence becomes more complex.

In Steps 1 to 3 the students must interpret a flow chart using the information of the input text. Step 4 provides further practice in decoding a wider range of information in the form of pictorial symbols and invites the students to consider the value of such symbols. Finally, in Step 5 the crutch of the written clues is removed altogether and the meaning has to be obtained solely by decoding an inter-related sequence of visual symbols. In terms of presentation in Steps 3 and 5 the students do not simply convert the visual information into verbal; they expand the visual by numbering the stages of the sequence, by captioning each stage and finally by producing a verbal description of the stages and the relationships between them. The end result is an integrated combination of all these levels of communication.

In the last section of the Unit on Materials the students divide into groups of three or four. Ten information sheets on the manufacture of eg rubber are distributed among the members of one of the groups. (Each group deals with a different material).

Relevant points from the information sheets are noted and discussed within the group. Their task is to produce from this work a clear and informative flow chart illustrating the ingredients and processes involved in rubber manufacture. They must then use the chart in order to explain to the class the process of manufacturing rubber.

In this way the skills practised earlier in the Unit of integrating the verbal and graphic modes are given a communicative application. In addition the students' previous experience in handling simpler projects of the kind described in the first set of sample materials is capitalised upon and extended.

The input materials for this Unit are taken from school science texts and from the information distributed by large manufacturers of widely used materials, eg in the case of rubber by Dunlop Limited.

Unit: **Meteorology**

Section A: **Water and the Atmosphere**

How to reduce condensation . . . .

The three factors governing condensation are:

1 Moisture content of the air.
2 Inside room temperature.
3 Outside temperatures.

The first two factors are normally controllable and condensation can be considerably reduced by preventative measures.

MOISTURE IN THE AIR

This is produced by normal living activities such as washing, cooking, bathing, etc. and can be controlled by the use of extractor fans, cowlings and ventilation at appropriate places.

INSIDE ROOM TEMPERATURE

This can also be controlled, by replacing single glazing with double-glazing to reduce the cold surface areas and by increasing the air temperature to enable it to hold more moisture without condensing.

OUTSIDE TEMPERATURE

This cannot be controlled, but it should be countered when it fails, by a corresponding increase of indoor temperature.

PRACTICAL MEASURES:

Heating. Wherever practicable, fix radiators under windows.

Curtains. To allow free passage of warm air to reach glass surface, position curtains 6" to 8" away from windows.

Ventilation. Open at least one window in each room for some part of day to permit air changes.

Wall Vents. Ensure that wall vents are fitted where open fires are not provided or existing flues blocked off.

Wall Coverings. Where possible, avoid glazed or non-absorbent wall coatings as these can attract condensation in the same way as glass.

Doors. When kitchens and bathrooms are in use, keep doors shut to prevent steam penetrating to other living rooms.

Section A: **Water and the Atmosphere**

Condensation on windows and its damaging effect on paintwork, curtains, wall coverings and window fittings is a constantly recurring problem in all types of building.

Its increasing incidence in today's buildings is the direct result of changes in modern living conditions, with the accent on warmer and more comfortable rooms.

In many homes, traditional open fires have been replaced by sophisticated heating systems; leaky doors and window frames fitted with draught excluders, partly covered floors have given way to fitted carpets, while ceiling heights have *been lowered and loft joists filled with insulating material.*

These modern aids to home comfort have created warmer rooms, but in many *cases with less ventilation and few, if any air changes.*

As a result, the moisture produced by normal living activities is no longer able to *escape up the chimney or through door jambs and window joints.*

In certain circumstances, all these factors combine to create ideal conditions for *condensation to form.*

The problem is:- ***how to combat these conditions and reduce condensation.***

Double-glazing is a means towards this end and its effectiveness will be all the greater if ordinary precautions are taken.

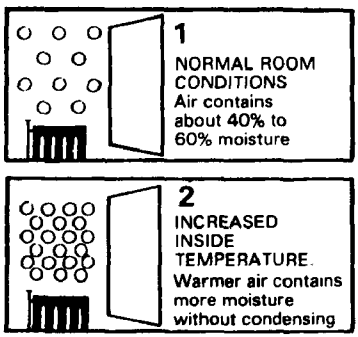
What is Condensation?

Condensation is moisture-laden air converted into water. The atmosphere in which we live always contains moisture which is generally invisible. A typical example of this is the steam, seen near the spout of a kettle, which quickly becomes invisible. It has in fact, been absorbed into the atmosphere.

The warmer the air is, the more moisture it can hold, but there is a limit to this condition. When this is reached and the warm air makes contact with a cold non-absorbent surface, it is chilled and sheds its surplus moisture in the form of water droplets on the cold surface.

As windows are usually the coldest surface in a room, this is where the condensation occurs.

How Condensation forms:



Unit: **Meteorology**

Section A: **Water and the Atmosphere**

Where does the moisture come from?

BREATHING: Two adults sleeping in an unventilated room for 8 hours produce 1½ pints of water vapour.

COOKING: Steam can be seen near saucepans and kettles, then seems to disappear. It has been absorbed into the atmosphere. The cooker itself may be a source of water vapour, for instance, an average gas cooker could produce approximately 1/5th gallon of moisture in one hour.

BATHING AND LAUNDRY: Often the major sources of atmospheric moisture in the home.

HEATERS: A flueless gas hall heater can produce up to 2/3 pint of water vapour in an hour. Paraffin heaters produce NINE PINTS of water vapour for every EIGHT PINTS of fuel burned.

NEW PROPERTY: The bricks, timber, concrete and other materials in an average 3-bedroomed house absorb about 1,500 gallons of water during construction. Much of this is dissipated into the indoor atmosphere.

Further helpful suggestions

Fit swing doors, or door-closers in room where moisture is generated.

Have heating systems which can be programmed to provide heating when and where it is most needed.

The colder it is outside, the more neat is needed inside. In the 'old days' we used to put more coal on the fire. Today we should boost our heating to compensate.

Condensation will be reduced, if the indoor temperature is increased to meet outside changes.

PROVIED THERE IS ADEQUATE VENTILATION IN THE HOUSE.

STUDENT WORKSHEET

UNIT: MATERIALS

Section B: Synthetic Fibres

Step 1: Read the following text. Use the diagram below to help you understand it.

Man-made fibres were first produced on a commercial scale in 1889 by Count Hilaire Chardonnet. Chardonnet's 'silk' was made by the action of nitric acid on cellulose, but the product nitrocellulose, was dangerously flammable.

In 1905 Courtaulds started producing viscose rayons, which were made by dissolving the cellulose obtained from wood pulp in strong caustic soda (sodium hydroxide) solution. Threads were formed by forcing the solution through a spinneret (a metal plate with tiny holes in it) which was in a setting bath of dilute sulphuric acid. The threads were wound out of the setting bath onto a reel, washed, dried on a heated reel and finally wound on to a bobbin.

These early fibres were made by reconstituting a natural fibre forming material — cellulose. The first truly synthetic fibres were produced in the 1930s. Polyvinyl chloride (PVC) was made in Germany and Nylon in the United States.

The pioneering work in synthetic fibres was carried out in the Du Pont laboratories, where a research programme was launched in 1927, headed by W H Carothers. By 1934 Carothers and his team of scientists had produced the first practical synthetic fibre. This was called Nylon. When it was patented in 1937 — that is, when the makers were granted the sole right to produce it — they claimed that it was stronger than any natural silk or rayon. It hit the headlines in 1939, when nylon stockings were on display for the first time at the New York World Fair. It had taken eleven years and had cost 27 million dollars to develop the first truly synthetic fibre.

The starting materials for the production of synthetic fibres are obtained from coal or oil. They are small molecules which will join together, end to end, in a chemical reaction to form a much longer molecule, the polymer.

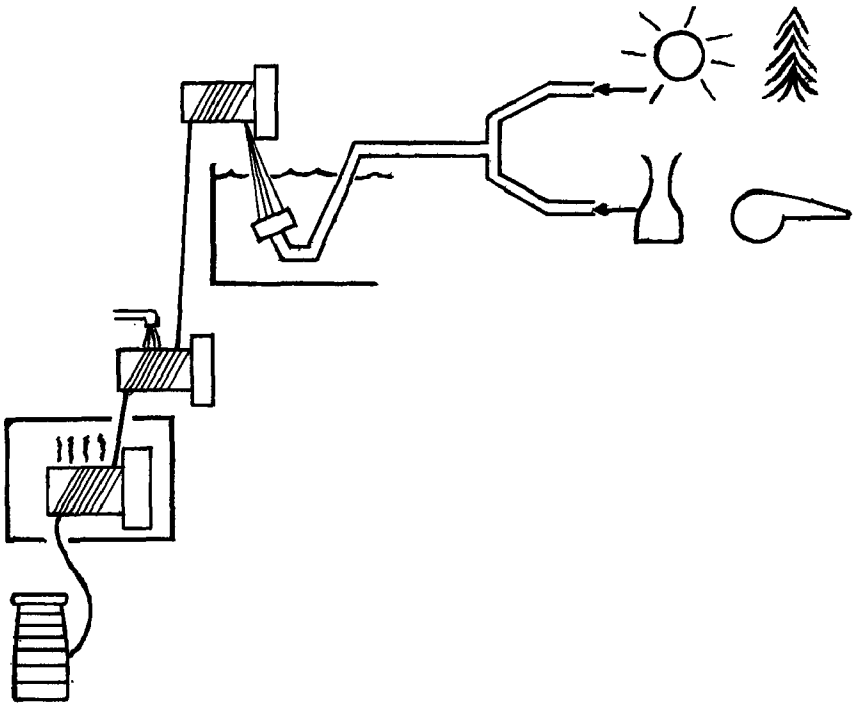
Very large numbers of molecules can react together in this way, forming a chain many thousands of atoms long.

Step 2: Matching. Join the matching halves of the sentences to make true statements.

Nitrocellulose	is a long chain of small molecules.
Cellulose	is set in sulphuric acid.
A spinneret	is obtained from wood pulp.
Rayon	was the first man-made fibre produced.
PVC & Nylon	are the raw materials for making synthetic fibres.
W H Carothers	is a metal plate with holes in it.
Coal and oil	were the first real synthetic fibres.
A polymer	led the team that discovered nylon.

Step 3: Look at the diagram below. It shows the stages in the manufacture of rayon.

(a) Label : the main parts of the apparatus
the materials used
each stage of the process



(b) Describe what happens at each stage:

. . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .

Step 4: (a) In the flow charts you have seen and produced, you will notice that symbols are used to represent the stages of the process. Why do you think symbols are used in this way?

. . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .

continued. . . . . .

(b) Look at the symbols below. Match the names with the symbols:

washing	air stream	mixing
petroleum	steam	rollers
heating	a grid	factory
shredding	a roll	

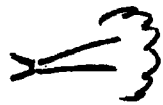
.....

.....

.....

.....

.....



.....

.....

.....

.....

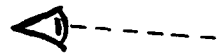
.....

.....

continued.....

(c) Here are some more symbols. What do you think they might represent? Write your answers next to the symbols.


.....


.....


.....


.....


.....


.....


.....

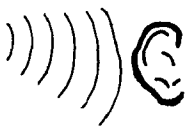

.....


.....


.....

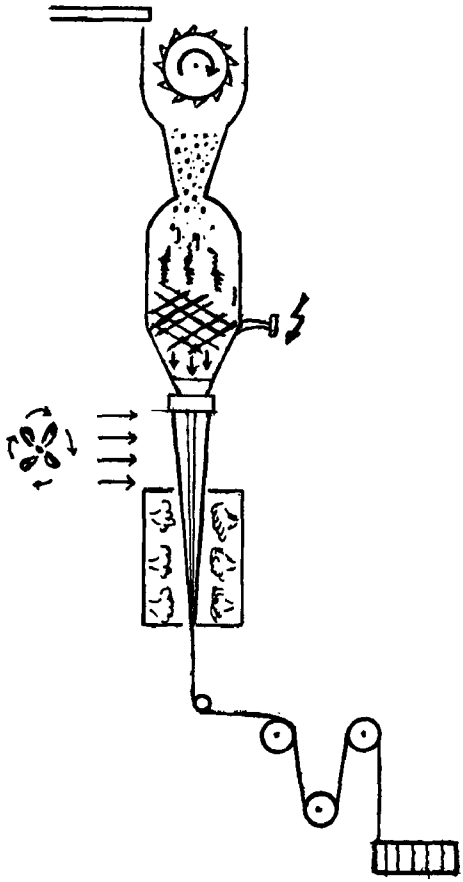

.....


.....


.....

continued.....

Step 5: (a) Look at the following diagram. It shows the process for making nylon fibres from sheet nylon.



(b) Label each section to say what is happening at each part of the process.

continued. . . . . .

(c) Using the flow chart, describe how nylon fibres are made. You will find it helpful to number each stage and then describe what happens at each stage.

Unit: Pumps, Section E: Pump Mechanisms

Input material need not be complex: the simplest of stimuli can evoke considerable use of the students' power of verbal and visual exploration and interpretation.

The pump and its subsidiary component, the valve, can be used to illustrate with very simple materials two important aspects of technical communication: firstly, the ability to describe a mechanism and how it works, and secondly, the need to consider the suitability of a piece of technology for a purpose. Technology does not exist for its own sake, but to serve a purpose. Thus, considering the relationship between mechanism and use gives insight into the mainspring of technological development — viz. the manipulation of materials to fulfil a human need.

In the Unit on Pumps, the students study aspects of structuring information about the operation and function of valves and pump mechanisms. In the find Section, illustrated here, they are asked to apply this knowledge to the solution of a realistic problem.

From a diagram of a particular type of pump[1] the students must produce a verbal description of its form and then extrapolate from this evidence to consider its function and use. In this way students encounter issues central to technological development. At the same time they receive further practice in the mutual use of verbal and visual representational modes.

---

[1] For reasons of space, only one diagram is reproduced here.

STUDENT WORKSHEET

Unit: Pumps

Section E: Group Work — Pump Mechanisms

Work in groups of 3 or 4.

Step 1: Each member of the group has a picture of a certain type of pump. Study your picture carefully.

Step 2: *In your group,* discuss:-

what components the pump consists of

How it works

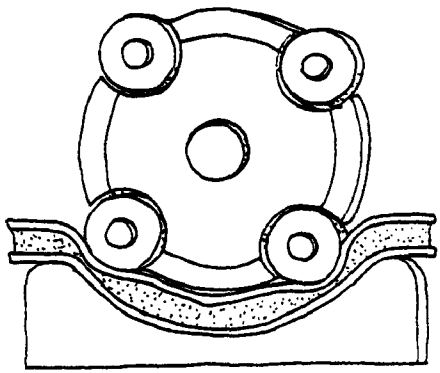
What advantages and disadvantages it has

What sort of jobs it might be used for.

Step 3: Draw a large-scale diagram of the pump. Label it and use arrows to show the flow of the fluid and the direction of the moving parts.

Step 4: Prepare a report, describing the pump. Consider all the points you discussed in Step 2 and put this information in your report.

Step 5: Using the diagram you have prepared, present your report to the class.



These samples have given particular emphasis to one aspect of the **Technical English** materials: viz. the variety of input data available and some of the ways in which it can be exploited. Many other areas require a good deal of further explanation:- the approaches used in teaching the structuring of information, practising interpretation and production of drawings and diagrams, 'study skills', the establishment of communicative networks — the list is not exhaustive. It is hoped that these will be the subjects of future papers in the area of preparing overseas students for technician education.

Notes:

1 The system of technical qualifications is at present being rationalised so itis difficult to give any precise definitions. Basically however the OND (Ordinary National Diploma) is a semi-practical/semi-academic qualification which would normally be taken by students who had completed their secondary education at age 16 with either CSE or GCE O-level certificates.

2 In the section on Admission Requirements, the TEC Policy Statement of June, 1974 (p 9), states:

> 'The Council will expect colleges to operate a flexible policy on entry to TEC programmes whereby students can be admitted at different ages and levels of attainment'.

At the **Level 1** point of entry to TEC programmes the normal requirement is Grade II/III CSEs in Mathematics, English and one other, preferably a Science subject. The CSE qualification is the basic level of school leaving certificate. It has a distinct non-academic character: the final grade is determined not only by an examination but also by project and course work. The examination is not essay based, as the GCE is, but uses instead multiple choice, one sentence answers, short paragraphs on a particular subject, interpretation of a picture etc. Grade 1 CSE is taken as approximately equivalent to a pass at GCE O- evel.

3 It should be noted that although the sample materials included conform to the standard book format required for this paper, in many others audio-visual aids are used integrally, and much of the printed matter is in non-book format (eg charts, leaflets, maps etc).

SELECT BIBLIOGRAPHY

Buckley, P, Samuda V and Bruton, A (1978)
Sensitising the Learner to Group Work — A Method in: Practical papers in English Language Education, Vol 1. Institute for English Language Education, University of Lancaster.

Coulthard, M (1977)
An Introduction to Discourse Analysis. Longman, London.

Daniels, M (1978)
Communication Studies for Student Technicians. Language Skills in Further Education and Training No 3, Bolton College of Education (Technical).

Hutchinson, T (1978)
The Practical Demonstration in: PPELE (op.cit).

Schegloff, E A (1971)
Notes on a Conversational Practice: Formulating Place in: Language & Social Context ed Gigliolo, Penguin.

Sexton, M (1978)
Materials Production Workshops for Future Teachers of English in: Konstanzer Mittteilungen No 1.

Swales J (1976)
Preparation and Marking of a Botany Essay and Some Possible Implications for EST in: ESPMENA Bulletin No 6.

Widdowson, H (1978)
Teaching English as Communication Oxford University Press.

MAKING SENSE: reconciling ideas and constraints in materials production

Alan Maley, The British Council, Paris, and Francçoise Grellet, Lycée Expérimentale de Sèvres

This article attempts to describe the approach and the materials developed for the last three years of a secondary school English course for France. **Making Sense**, Level 1 published in 1978 (Hachette). Level 2 to appear in early 1979.

We start by a discussion of the design problems and the principles to which they gave rise. We then examine the nature of the target audience and the constraints we were faced with. The materials are then described in more detail both from the point of view of organisation and of content.

Design Problems

We wished to offer a set of materials which would overcome students' apathy and promote a motivation to communicate in English. Basically we opted for an approach which can be roughly described as 'creative'. That is that it would lead the student outwards from the textbook and not constrain him within its limits. The activities are therefore most often open-ended and are intended to produce 'divergent' rather than 'convergent' reactions.

What we did not want to produce was yet another collection of texts. In other words, the problem was to break a long-standing tradition by which English is studied purely and simply through the detailed analysis of written (or 'oralized written') texts.

Instead, we tried to offer a range of varied activities (including written texts, of course) in which there would be a number of options open to the teacher. In brief, a cookery book rather than a recipe. This implied that the so-called four skills had to be integrated.

A further problem was to find a way of loosening the stranglehold of a purely structural/grammatical approach and to incorporate the more useful insights from the so-called 'notional/functional' approach, yet without falling into the strait-jacket of yet another orthodoxy.

All of this in the context of a group of learners without precisely definable objectives (see below, target audience.)

Whether or not we succeeded in solving these design problems is a matter for personal judgement.

Principles

Throughout we tried to keep the following principles in view. The materials should be:

1 Stimulate and develop high student motivation, both through their intrinsic, thematic, interest and through the techniques applied.

2 Prepare the learners for encounters with 'authentic' English.

3 Offer learners at different levels of attainment appropriate work on identical text material.

4 Allow the teacher flexibility in choosing materials for the particular group he is working with.

5 Make the learner responsible for as much of his own learning as possible.

6 Integrate the language skills.

7 Focus on the essential categories of communicative function without losing sight of grammatical points enshrined in the *'programme de base'.*

8 Never be meaningless.

Target Audience

The course was designed for **French** students in the last three years of the secondary school (classes de seconde, première, terminale), that is to say students aged from 15 to 18. We had to bear in mind that on entry students tend to be very mixed in ability, social background, etc and that they have considerable problems in adjusting to the new situation. For example, students from different schools are brought together into a class where the type of work is often quite different from what they are accustomed to.

We had also to consider the fact that the five years of English they had previously undergone was of a very unintensive kind (three to four hours per week) and that this rhythm would continue or diminish (see below, constraints).

These students learn English because they have to learn a language and English is the most popular choice. There is however no rigorously defined set of objectives or syllabus (see below, constraints).

Constraints

The major constraints are educational ones. The 'Baccalauréat' which is the terminal exam and the passport to higher education rests basically on the study of a number of texts which have to be commented on and in part translated. Naturally enough, this tends to have a negative backwash effect on the procedures of many teachers and on the motivations of many students.

This examination is part of a highly structured system which tends towards an academic rather than a creative type of learning. (It is perhaps not fully realized in the Anglo-Saxon world quite how the Cartesian analytical mode dominates the French educational system. And this in spite of strong contemporary counter-currents.) It is very difficult to run contrary to this tradition even if the constraints are not formally stated. The centralizing tendencies of this system are supported by a very strong system of school inspection. Unlike England where inspectors have only advisory powers, in France the teachers' career and emoluments depend to some extent on the result of an inspection. Paradoxically, although the modern language inspectors (regional and national) tend to encourage experimentation and diversity, the teachers — not unnaturally in view of the above — are inclined to a conformity which they imagine is required of them.

There are also the well-known material difficulties, in particular size of classes (30 to 35 students at this level), limited number of hours, etc.

We also had to bear in mind that at least for the moment it is the individual student or his family who buys the books and that schools have limited funds to buy non-book materials.

In addition to these institutional difficulties, there were editorial constraints. However well-intentioned, publishers are disinclined to incur the displeasure of what they imagine to be their prospective public or market. They are also partly constrained by purely economic considerations. This tends to make them prefer a uniformity of format, a set number of pages per unit, etc. It makes them disinclined to accept non-book material (which is difficult to produce, difficult to market and uncertain in profit). We should hasten to add that in our case the publisher did everything possible to meet our no doubt excessive demands.

Layout of the Materials

Neither was it possible to base these materials upon a precise specification of needs/objectives. Language learning in the secondary school situation (not only in France) is notoriously nebulous as to its terminal objectives. It

was not possible therefore to make a detailed needs analysis leading to a 'communicative' syllabus. The decisions were arrived at in a very ad hoc and subjective manner. At the level of structures we were able to base our decisions on an analysis of typical errors made in the previous years of learning. At the level of functions/notions [1] we took *The Threshold Level* [2] of Van Ek as our starting point and modified it where it seemed necessary.

It seemed to be both logical and practicable in Level 1 to attempt to cover all four skills (although there is a large amount of reading texts in particular and there is a tendency to favour oral production). In Level 2 there was a conscious attempt to integrate skills in problem-solving activities and to develop the reading skills systematically.

As will be apparent, the approach was a compromise between structurally, thematically and functionally/notionally based material, between formal and creative modes. In the first five units of Level 1 an attempt was made to revise the grammatical material supposedly acquired in the previous five years. There was equally an attempt to include in these units the functions/notions necessary for a basic level of communicative competence, eg:

Unit 1: Socializing

Unit 2: Describing, asking about personal characteristics

Unit 3: Asking for information, confirmation, repetition, correcting, narrating, reporting

Unit 4: Inquiring about or expressing intellectual and emotional attitudes

Unit 5: Suggesting, advising, proposing, warning, threatening.

Considerable care was given to the layout of the student's book (inevitably the centre-piece of the course). In the case of Level 1 this was as follows:

At the top of the first page, there is a table which sets out the contents of the unit in functional and thematic terms. The rest of the first two pages (Warming Up) consists of documents linked to listening comprehension. For the next three double pages the major functions of the unit are developed through texts and graphics. (In each double page: a starter, a text or document to exemplify functional exponents and a reading text). The next two pages *(Its All Yours)* are for independent work and are divided into four sections: something for you to try, something for you to

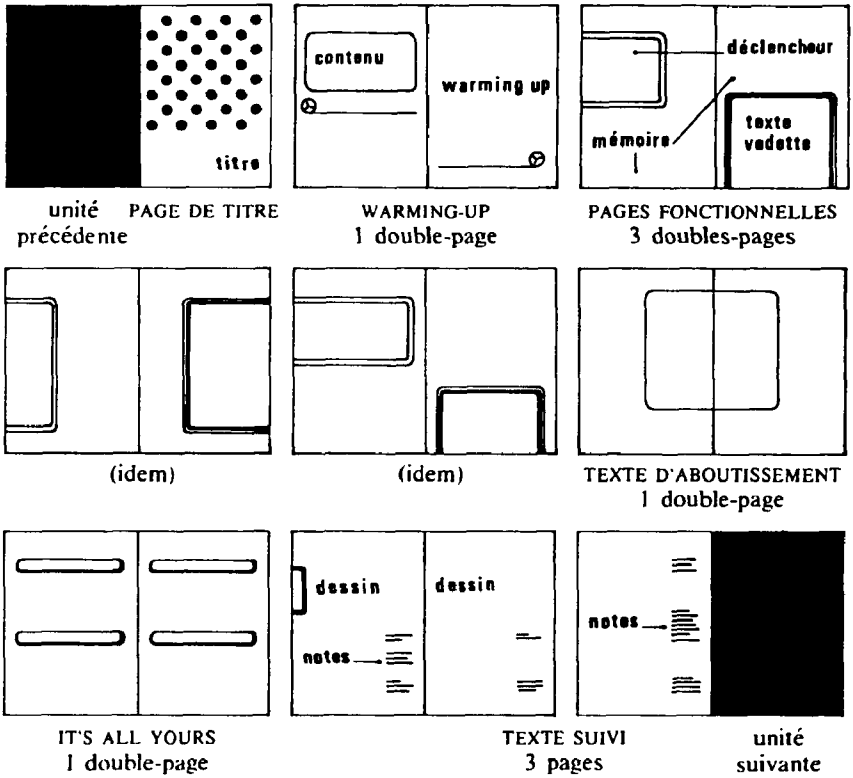
---

[1] There seems to be a regrettable lack of clarity in the definitions of these terms. We therefore use them as one.

[2] The Threshold Level by J A van Ek, Council of Europe 1975

remember, something for you to think about, something for you to laugh at. A long text or short story appears on the last three pages of each unit.

Here are, for example, one double page and one page from *It's All Yours*.



unité précédente
PAGE DE TITRE
WARMING-UP
1 double-page
PAGES FONCTIONNELLES
3 doubles-pages
(idem)
(idem)
TEXTE D'ABOUTISSEMENT
1 double-page
IT'S ALL YOURS
1 double-page
TEXTE SUIVI
3 pages
unité suivante

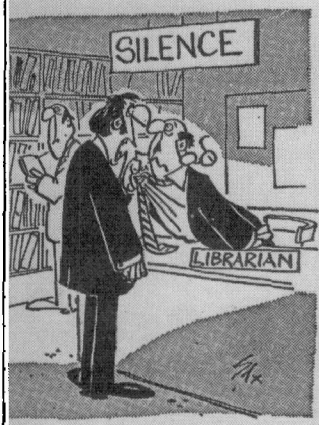
U5 You're kindly requested...

10

An Invitation to
a party
at 34 Albany Mansions
Grove Park
on Saturday 9th February
at 8 o'clock
Hope to see you
R.S.V.P
Steve and Penny
Albright

11

Your kind invitation
to
a party on Saturday, 9th February
is accepted with much pleasure
by
Margaret Pearson



"I want a book on controlling human emotions!" 13

Weekend Book of Jokes, Associated Newspapers Ltd., London.

Are things getting you down? 14

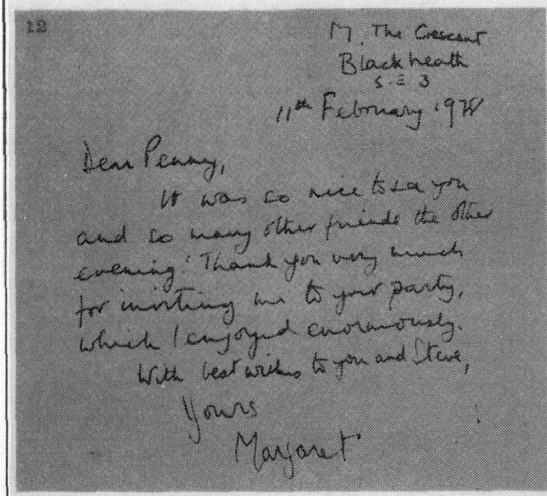
Here is some advice given by a psychologist to people who are finding life difficult. Do you agree with his suggestions?

- Do you lose your temper over little things?
  Then, you should find things to laugh at.
- Do you do the same thing every day?
  Try to go to work a different way.
- Do you try to please other people all the time?
  Well, don't. You must learn to please yourself sometimes.
- Can you admit that you've made a wrong decision?
  Be realistic. Remember that other ways of doing things can be right, too.
- Do you think other people are not doing their best?
  Remember that other people can be working just as hard as you.
- Can you manage your own affairs?
  Don't make other people do things for you all the time.
- Do you feel other people dislike you?
  Be friendly first. Don't accuse people of feelings they probably haven't got. Learn to face the truth!

This page appears in ***Making Sense*** Level 1 Reprinted here by kind permission of Hachette, 79 Boulevard St Germain, Paris 6.

This is the way to do it

12



17, The Crescent
Blackheath
S.E 3
11th February '78

Dear Penny,

It was so nice to see you and so many other friends the other evening. Thank you very much for inviting me to your party, which I enjoyed enormously.

With best wishes to you and Steve,

Yours
Margaret

TEN WAYS TO GET THINGS DONE 15

You don't always have to give orders to get people to do things. In fact it might be better not to use orders. For instance, suppose you want somebody to go to the cinema with you. What can you say?

1 *Let's go to the cinema tonight.*
2 *How about going to the cinema?*
3 *I want to go to the cinema tonight, come along.*
4 *Do you fancy going to the cinema this evening?*
5 *There's a very good film on at the Odeon. Shall we go?*
6 *We mustn't miss the latest Paul Newman film. Why don't we go this evening?*
7 *If you haven't seen the film at the Roy, you ought to come with me this evening.*
8 *I'm sure you'd like to see Paul Newman. His new film is on this week. I wonder if you'd like to come with me.*
9 *I hate going to the cinema on my own. Wouldn't you like to come with me?*
10 *If you're free this evening, we could go to the cinema.*

The Index at the Savoy 16

The Savoy Hotel in London has more than 500 bedrooms. It keeps an index with information about their clients. There are over 120 000 cards in the index. For the most part the cards are filled with things like home address, business address, and what rooms the client has stayed in. But, in some cases there are additional notes because some clients need special attention.

Mrs. So and So doesn't like green bed covers. Count Whoever must have his bed against a wall with a telephone next to it. Several guests from the Middle East ask that their bed be turned to face Mecca. Someone must have guava jelly every morning with breakfast. Yet someone else demands that cucumber sandwiches and English pork sausages be waiting in his room the moment he gets there. The more eccentric the request the better the Savoy seems to like it. For example one American guest refuses to live by European time. He keeps his watch set for Los Angeles, which is eight hours earlier. "He's on stomach time," they say at the Savoy. "As long as he stays here though, dinner is served him somewhere around 3 a.m. local time."

Of course the index is confidential and not open to anyone outside the Savoy. The management was more than willing to make a list of such eccentricities as "no pink flowers in Mrs. X's room because she threw them out the window the last time," and "Countess Y says she can't sleep unless she has a room with blue curtains." But it would tie no names to any of the requests.

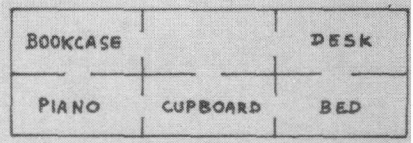
✲ *International Herald Tribune.*

This page appears in *Making Sense* Level 1 Reprinted here by kind permission of Hachette, 79 Boulevard St Germain, Paris 6.

ll yours It's all yours It's all yours

Something for you to think about

6 Here is the JONES' house. Mrs. JONES wants to move the bed into the room where the desk is now, and the desk into the room where the bed is. Each room is only big enough for one piece of furniture. What is the best way of making the change—with as little work as possible?

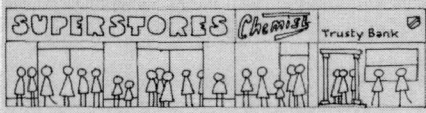


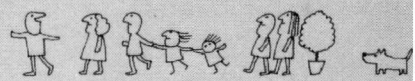
7 In the town of LEXFORD the supermarket, the bank and the chemist's are open together on just one day of each week.

(a) Each of them is open four days a week.
(b) All three are closed on Sunday.
(c) None of them is ever open on three consecutive days.

(d) On six consecutive days:
- the chemist's was closed on the first day;
- the supermarket was closed on the second day;
- the bank was closed on the third day;
- the supermarket was closed on the fourth day;
- the chemist's was closed on the fifth day;
- the bank was closed on the sixth day;

On which of the seven days of the week are all three places open together?





Something for you to laugh at

8

SCUTINEER: The job of a scrutineer is to check all advertisements before insertion in the newspaper for spelling, accuracy and legibility. Applicants must be able to work fast and accurately.

Apply to:
THE PERSONNEL OFFICER
ECHO AND POST LTD
MARK ROAD, HEMEL HEMPSTEAD HERTFORDSHIRE

9

COMPUTERS IN PRINITING INDUSTRY

We are now offering a number of rare opportunities for experienced computer men capable of taking full advantage of exceptional career prospects.

Dataweek

10

BLOTTING PAPER WILL NOT BE PROVIDED UNTIL THE PUBLIC STOPS TAKING IT AWAY.

Notice in a village post-office.

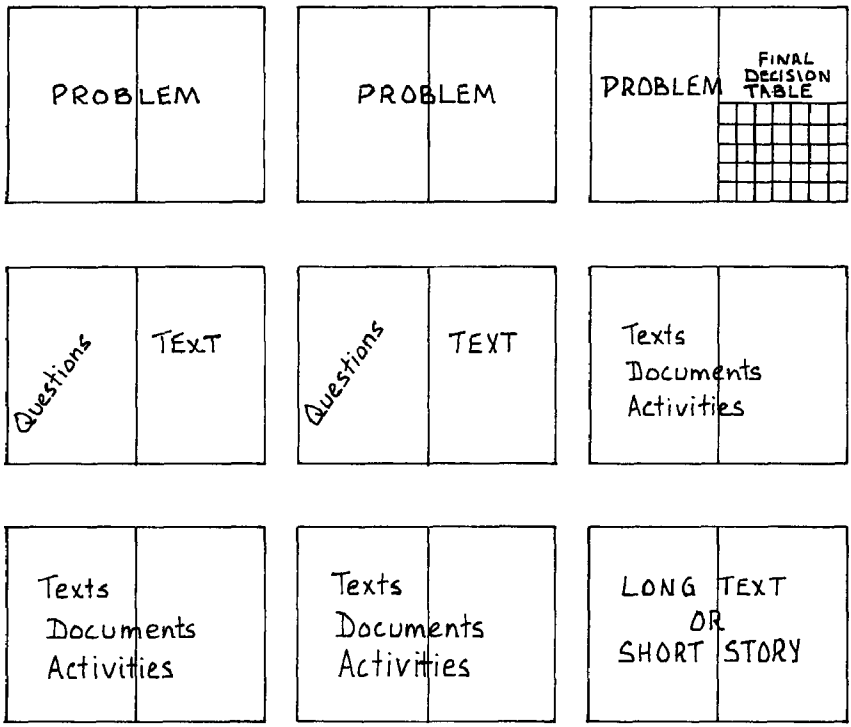
6 The most economical way is:
Desk, bed, cupboard, desk, bookcase, piano, desk, cupboard, bed, bookcase, cupboard, desk, piano, cupboard, bookcase, bed, desk

7 Friday.
You can work this out by asking yourself which is the first of the six consecutive days mentioned. It cannot be Sunday because. In fact it can only be Saturday. You can then use the information given in (a), (b) and (d) to show which places are open on which days:

	Sun.	Mon.	Tues.	Weds.	Thurs.	Fri.	Sat.
Bank	Cl.	Cl.	Op.	Op.	Cl.	Op.	Op.
Chemist's	Cl.	Op.	Op.	Cl.	Op.	Cl.	Cl.
Supermarket	Cl.	Op.	Cl.	Op.	Cl.	Op.	Op.

This page appears in *Making Sense* Level 1. Reprinted here by kind permission of Hachette, 79 Boulevard St Germain, Paris 6.

In the case of Level 2 the layout was as follows:



The first six pages of each unit consist of a problem which the student can solve after reading a number of texts, documents and listening to recordings (= reading to get information).

On the next two double pages there are two texts with a series of questions at two levels to help the reading comprehension (= acquiring a reading technique).

The next three double pages consist of various texts, documents and activities around the theme of the unit.

A long text or short story appears on the last two or four pages of the unit. (reading for pleasure).

Make Up Your Mind

You work for the Ministry of Defense in Chicago and you suddenly learn that World War III will break out in a matter of days or hours. You have been preparing for this over the past twenty years. You knew that if a war broke out, thousands of bombs would destroy the whole world. So your government has been building thousands and thousands of fall-out shelters all over the country. Five people can live in one of these places for a period of one month (the war should not last more) and they will find their protection against bombs and radiation.

You are in charge of these fall-out shelters and give as many instructions as you can for people to prepare to go and live in them since the war is imminent. But you realize that in spite of the large number of shelters, there still aren't enough of them .... Somebody responsible for the shelters in a small town outside Chicago comes to you with his problem: eight people remain for the last shelter. He thinks **you** ought to decide who to choose. The shelter cannot contain more than five persons without endangering their lives. On the following pages you will find a description of these eight persons.

WHOM WOULD YOU DECIDE TO PUT IN THE SHELTER?

Don't forget that:

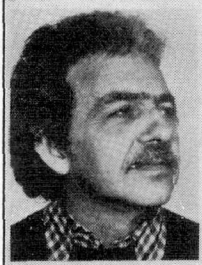
you must make up your mind **quickly**

if the enemy use the latest nuclear device there's a strong possibility that most — if not all — shelters all over the country or the world will be destroyed. Except, perhaps, this one outside Chicago which happens to be built far deeper underground. Remember that the five persons you choose might be the only ones left in the world after the war, **and in that case they would be responsible for starting the human race all over again.**

The eight persons are:

— a doctor
— a black militant
— a research chemist
— his wife (they do **not** want to be separated)
— a painter
— a mechanic
— a student in literature
— a clergyman

The Painter



An exhibition of the works of G. Adams

G. Adams: A Retrospective

1938: Born in North Dale, Ill.
1961: Graduates from the New York Institute of Arts
1968: First exhibition in Kansas City
1969: Exhibition of paintings in Minneapolis
1973: Moves to New Hale and joins the Chicago group.
1978: Exhibition in Washington, D.C.

NEW HALE PAINTER IN CHICAGO

An exhibition of the paintings of George ADAMS opened yesterday in Chicago. The painter who has been living in New Hale for seven years is one of the best examples of the Chicago school of painters. His works reveal the influence of Kandinski in their composition and sensitivity to color. Let us hope this exhibition will help make his works better known. Mr. ADAMS is very active in the community where he organizes the New Hale Art Center. It is thanks to his dynamic work that our youth club was able to give two concerts this year and present a photography exhibition. (from *The New Hale Sun*)

Here is one of Mr. ADAMS' paintings, now shown in Chicago.

The Mechanic

DEWLITT CARS, INC.
R. Fenton,
Gnl Manager.

June 23rd, 19..

Dear Mr. Collins,

I am very glad to answer your inquiry of June 18th about the qualifications of Mr. Roman GOLKA as a mechanic.

Mr. GOLKA has been working with us for the past seven years. It is only the removal of our firm to Columbus, Ohio, that has led him to leave us.

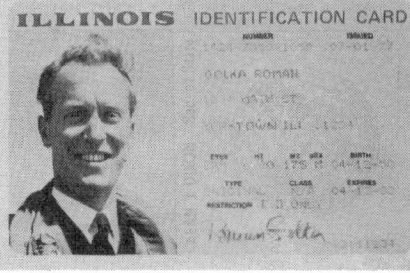
Throughout his period of employment his work was extremely satisfactory. Mr. GOLKA is an expert mechanic, and he is quick, efficient and very reliable. His only difficulty so far has been the English language which he still doesn't master very well, Polish being his native language. But he has always proved industrious, responsible and careful in following instructions.

Added to these attributes, his pleasant personality and willingness to co-operate make him unusually successful in working with others.

Yours very truly,

R. Deans

Robert Deans



This page appears in *Making Sense* Level 2. Reprinted here by kind permission of Hachette, 79 Boulevard St Germain, Paris 6.

Love Thy Neighbour

5 Ways to Kill a Man

There are many cumbersome ways to kill a man.
You can make him carry a plank of wood
to the top of a hill and nail him to it. To do this
properly you require a crowd of people
wearing sandals, a cock that crows, a cloak
to dissect, a sponge, some vinegar and one
man to hammer the nails home.

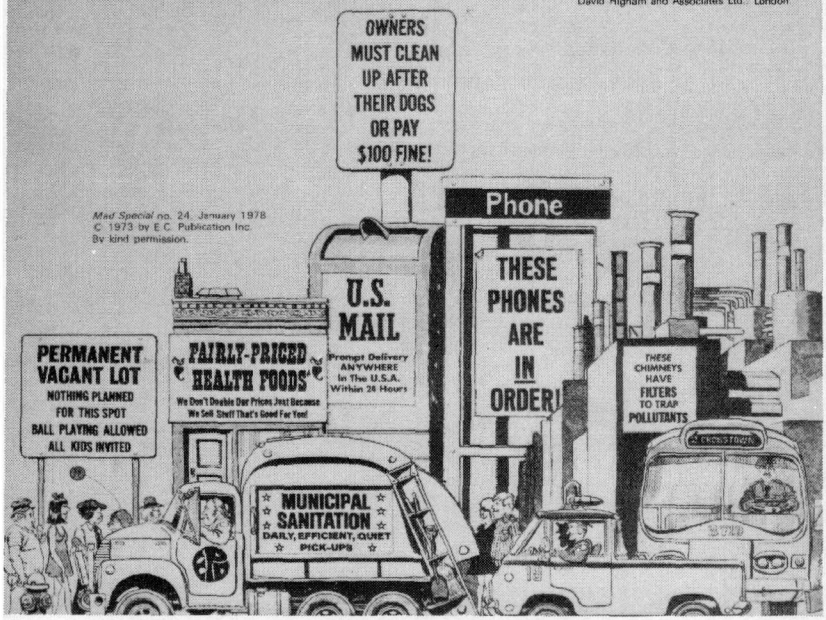
Or you can take a length of steel,
shaped and chased in a traditional way,
and attempt to pierce the metal cage he wears.
But for this you need white horses,
English trees, men with bows and arrows,
at least two flags, a prince and a
castle to hold your banquet in.

Dispensing with nobility, you may, if the wind
allows, blow gas at him. But then you need
a mile of mud sliced through with ditches,
not to mention black boots, bomb craters,
more mud, a plague of rats, a dozen songs
and some round hats made of steel.

In an age of aeroplanes, you may fly
miles above your victim and dispose of him by
pressing one small switch. All you then
require is an ocean to separate you, two
systems of government, a nation's scientists,
several factories, a psychopath and
land that no one needs for several years.

These are, as I began, cumbersome ways
to kill a man. Simpler, direct, and much more neat
is to see that he is living somewhere in the middle
of the twentieth century, and leave him there.

Edwin BROOKS. *Songs at the Battery Hen*,
David Higham and Associates Ltd., London



Mad Special no. 24, January 1978
© 1973 by E.C. Publication Inc.
By kind permission.

This page appears in *Making Sense* Level 2. Reprinted here by kind permission of Hachette, 79 Boulevard St Germain, Paris 6.

One In The Crowd

Hotel Room 12th Floor

This morning I watched from here
a helicopter skirting like a damaged insect
the Empire State Building, that
jumbo size dentist's drill, and landing
on the roof of the PanAm skyscraper.
But now midnight has come in
from foreign places. Its uncivilised darkness
is shot at by a million lit windows, all
ups and acrosses.

But midnight is not
so easily defeated. I lie in bed, between
a radio and a television set, and hear
the wildest of warwhoops continually ululating through
the glittering canyons and gulches—
police cars and ambulances racing
to the broken bones, the harsh screaming
from coldwater flats, the blood
glazed on sidewalks.

The frontier is never
somewhere else. And no stockades
can keep the midnight out.

Norman MAC CAIG, *Rings on a Tree*,
Chatto and Windus Ltd.

The Man in the Bowler Hat

I am the unnoticed, the unnoticeable man:
The man who sat on your right in the morning train:
The man you looked through like a windowpane:
The man who was the colour of the carriage, the colour
of the mounting
Morning pipe smoke.

I am the man too busy with a living to live,
Too hurried and worried to see and smell and touch:
The man who is patient too long and obeys too much
And wishes too softly and seldom.

I am the man they call the nation's backbone,
Who am boneless—playable catgut, pliable clay:
The Man they label Little lest one day
I dare to grow.

I am the rails on which the moment passes,
The megaphone for many words and voices:
I am graph, diagram,
Composite face.

I am the led, the easily-fed,
The tool, the not-quite-fool,
The would-be-safe-and-sound,
The uncomplaining, bound,
The dust fine-ground,
Stone-for-a-statue waveworn pebble-round.

This page appears in *Making Sense* Level 2. Reprinted here by kind permission of Hachette, 79 Boulevard St Germain, Paris 6.

Description of the Materials
Level 1
For the Student:

- the student's book, as described above.
- a workbook and screening test. There are two series of tests designed to establish the level of the students at the beginning and then again in the middle of the student's book. They are an optional element intended to serve as grammatical revision as and when necessary. These exercises are designed for autonomous work.

Screening Test:

NAME **DATE** **SECTION** **Screening Test**

1/1 Reading comprehension

Read the text carefully

THE HIDDEN CLUE

It was snowing so heavily one evening that Peter and Lucy wondered whether to go out or not. They went to the house of some friends every Thursday to play cards. But this Thursday, it was such a cold night that they decided to stay in. Peter rang their friends: 'I'm so sorry we can't come tonight, but really we don't feel like going out in this weather.'
— 'Oh dear! Try and come.' said Tom. 'We've invited four other people round, if you and Lucy don't come, there'll only be six of us. It'll be such a nuisance if two of us have to sit there all evening without playing.'
Peter turned to Lucy and explained. 'All right, dear,' she said, 'we'd better go.'
Half an hour after they'd left, a car drew up outside their house. A man got out and went round the back. He was wearing gloves and rubber shoes. He went through the whole house. He put everything valuable that he could find into a large bag that he was carrying. He put the bag into the back of the car; he looked at his footprints. The ones he had made earlier had already disappeared. It was still snowing so heavily that the ones he had just made would soon be covered. He got into his car and tried to turn round: it was so narrow that he had to back into the bank of earth at the side of the road.
Peter and Lucy came back at eleven o'clock. It had stopped snowing. They went inside 'Good Heavens!' shouted Peter. 'We've been burgled. What fools we were to go out on a night like this!'
They phoned the police, who came round immediately. They didn't find any clues then, but when they went back very early the next morning, they did find something. They arrested the thief that afternoon.

(Reprinted by permission of BBC Modern English Publications Ltd, 33 Shaftesbury Avenue, London W1)

Now read the following statements and choose the right one. Put a cross in the box corresponding to the statement you choose.

0 **a** It was a very cold evening.
b It was a bright evening.
c It was a warm evening.
d It was a pleasant evening.

The right statement is **a** so you put a cross in box **a**.

	a	b	c	d
0	×			
1				
2				
3				
4				
5				

1 Peter and Lucy had decided to stay in because

a there were enougn people
b they had not been invited
c they did not know if their friends were at home.
d they didn't want to go out in such a bad weather.

2 Peter and Lucy finally decided to go to their friends' because

a it was Thursday
b it was snowing.
c they didn't want to disappoint them.
d they wanted to play cards.

1/2 Grammar

Choose the best element to fill in the blank. Put a cross in the box corresponding to your choice.

0 I have asked ... to write more often.

a him **b** to him to **c** to him **d** him to

The right answer is **a**, you put a cross in box **a**.

	a	b	c	d
0	×			
0			×	
1				
2				
3				
4				

0 How often ... tennis?

a he plays **b** is he playing
c does he play **d** he's playing

The right answer is **c**, you put a cross in box **c**.

1 I ... a letter from him yesterday.

a have had **b** had **c** would have **d** had had

2 He asked me if ... to go to a concert with him.

a I've liked **b** I'll like **c** I'd like **d** I'd liked

3 This house belongs to my uncle and aunt: it is...

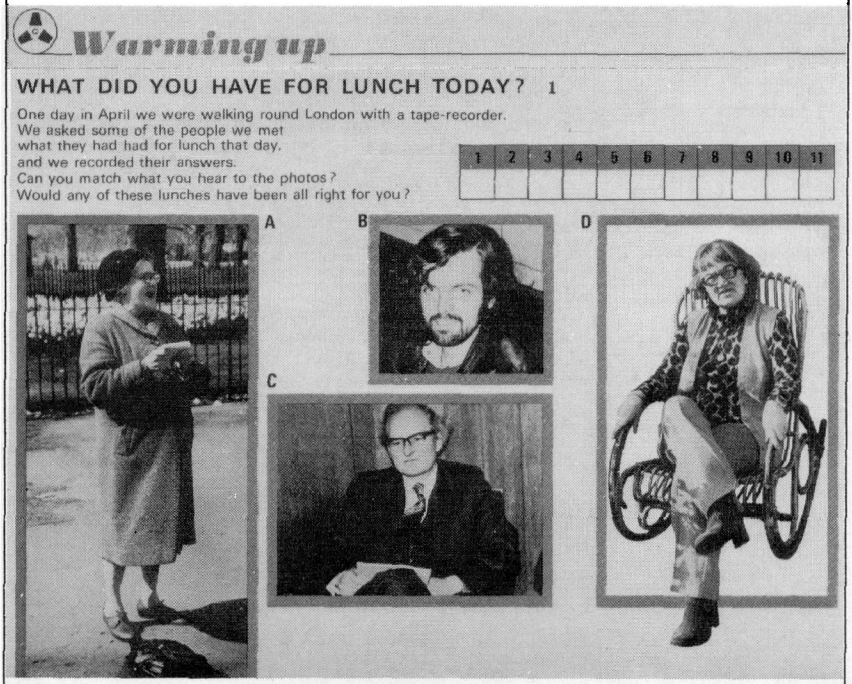
a theirs **b** to them **c** of them **d** their

4 He kept ... hat on ... head.

a a; the **b** the; the **c** his; the **d** his; his

For class use: — Four tapes. These contain:

1 Listening comprehension material linked to the first two pages of each unit (warming up) eg in unit four, people talk about what they had for lunch. Students are invited to match pictures with the speakers.



2 Recordings of some of the texts: eg in Unit 3, Tony Hancock's sketch on Threatening Letters.

3 Five sound sequences: these are sounds arranged in an order which the student is invited to interpret as a story.

Sequence 1
Hubbub of conversation at a party / noise of glasses, etc / loud crash / deadly silence / embarrassed coughs / gradual restarting of conversations / dance band in the background / sudden silence (no explanation) / hysterical laughter.

Possible use with Unit 1. Also with Units 4, 7 and 8.

This page appears in *Making Sense* Level 1. Reprinted here by kind permission of Hachette, 79 Boulevard St Germain, Paris 6.

— A set of rôle-play cards. **Choose a Card.**. These consist of eight situations for exploitation in pairs and four situations with four characters. On one side of the card is printed the information needed to play the rôle, on the other some of the language which might be useful.

Side 1

A. *Useful language*

Requesting	I wonder if you'd mind ... Do you think you could ... me ...? I'de be grateful if you could ... I'm afraid I'll have to ask you to ...
Expressing disapproval/anger	What do you mean, you've ... it? Why can't you take care of ...? How could you be so ...? Why the hell can't you be more ...?
Accepting apologies	Well all right. In that case I suppose... All right then. But make sure ... Well I suppose it wasn't really your fault.

B *Useful language*

Expressing regret	I'm afraid something terrible has ... There's been a slight ... I'm afraid.
Apologizing/making excuses	I'm terribly sorry but it wasn't ... I really am sorry but I didn't ... on purpose.
Proposing	Look. I'll ... for you. I promise I'll ... Don't worry. I'll ask ... if ...

Side 2

A You lent B a valuable object some weeks ago. You need this object urgently for something you will be doing to-morrow. You ask him to return it to you.

B A lent you a valuable object some weeks ago. You are usually very careful with things but unfortunately something has happened to the object and it is now damaged. Try to explain that it was not your fault. What can you do to make up for what has happened?

(The slide packs and rôle-play cards are available separately and can be used independently from the rest of the material if necessary).

Reprinted here by kind permission of
Hachette, 79 Boulevard St Germain, Paris 6

For the teacher: a teacher's book which contains:
a detailed explanation of how to use the student's book and the workbook/screening test.
methodological guidance, for example, how to use the book with mixed ability classes or very weak classes, how to develop reading skills, etc. These two parts are in French.
detailed teaching notes for each text or document in this student's book:

8 **It's my own invention** ◘

- The text should be read at home in advance.
- Make sure that certain words, expressions or ideas have been fully understood:
  - by referring to the illustration and pointing out the armour, the queer-shaped little box, the bee-hive, etc:
  - by asking questions:
  - by paraphrasing the text: 'It's as well to be provided for everything.' or 'I want to be ready to face any kind of emergency.'
- One group can make a list of the things the White Knight is carrying: another a list of the situations he might encounter. This leads to a matching game between the two groups. Eg

  'He's got a bee-hive.' group 1 — 'in case he meets some bees.' group 2

- *What do you think of Alice and the White Knight* (common sense, imagination, etc)?
- Exercises 7, 8, 9 and 10.
- Ask the students to discuss what the inventions might be in slides 20 and 54.

- detailed notes on how to use the slides, rôle-play cards and sound sequences.

Here is an example from the section relating to the slides:

Example: Slide no.1

As we have already stated, more than one of these techniques can be applied to any given slide. Here is an example of what might be done with slide no. 1. (Needless to say, the teacher should not take each slide and work relentlessly through each of the techniques that could be applied to it!)

Technique 1 (For grammatical revision)
The following patterns could be practised:
— present perfect with "just" *(he's just seen a. . .");*
— present continuous *(he's looking at. . .);*
— passive *(he's been surprised by. . .);*
— expressions of varying degrees of probability *(he may/might/must/could have seen. . .)*
— future of intention *(he's going to. . .)*

Technique 5 (Picture-Linking)
You could link slide no. 1 to slides 17, 4, 6 and 15.
Groups are given 15 minutes to prepare their version of the story. One member of each group can then go to the next group (see p.32 above).
Either he has to guess the story from the order in which the pictures are arranged (he can ask the group questions to help him).
or he can ask them to tell him their story and try to find weak points in it. The group has to justify its version.

Technique (Finding the words)
Whichever of these activities is being pursued (finding a slogan, caption, headline or title), work will be done in groups and there will be comparision of results.
Some possible versions for this slide would be:
(slogan) An advertisement for pocket calculators: *Look! No hands!* An advertisement for pocket tissues *Bless you! / Damn it! / Forgot my double strength DRAIN X* / etc.
(headline) PLANE CRASH NEAR ANDOVER / MARTIANS LAND AT CREWE / STRIPPERS SHOCK BRITISH RAIL.
(title) *Strangers on a Train / Murder on the Orient-Express / A Calculated Risk.*

Each slide is also tabulated so as to allow ready reference to the functions and grammar which it lends itself to practising.

The last two parts are in English.

Reprinted here by kind permission of
Hachette, 79 Boulevard St Germain, Paris 6

— Four packs of 18 slides each, *Slide into Talk*. The main purpose of the slides is to promote spontaneous conversation between students. They can be used for grammatical revision as well, however. There are detailed instructions for the use of each slide, including cross-referencing between slides.

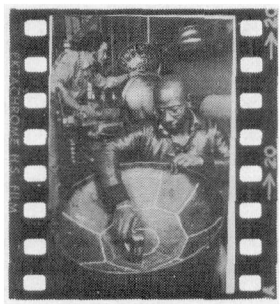
SLIDE 5

Techniques to be used: 1, 2, 3, 4, 5, 7a and 8.

• In technique 1 (For grammatical revision), the grammatical patterns for practice would include: present continuous *(He's hammering the..., he's looking at..., he's examining...)*; degrees of certainty *(he may / could might / must be making...)*; expressions of purpose *(It's for ...ing, it's used for ...ing)*.
• Technique 5 (Picture linking), you could link this picture with pictures 9, 20 and 42.

Doing Things With Words

• Suppose that the man at the back wanted the man at the front to help him do something. What could he say? (e.g. *Could you just. I'd like you to... if you can spare a minute. Can you... for me? Do you think you could...?)*
• Suppose the man at the front was explaining to you how to make... What might he say? (e.g. *First you need a ..., then you... After that you have to ... it with... You must be careful (not) to... Done't forget to...)*



Level 2

There will be the following components:

For the student: a student's book, as described above, p

For class use: 4 tapes containing the recording of the listening comprehension exercises and of some of the texts in the student's book.

For the teacher: a teacher's book.

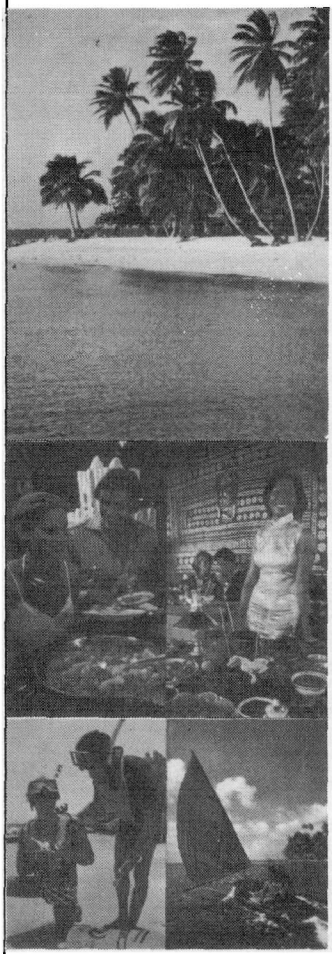
Exercises for Grammatical structure and notional categories:

— a student's workbook

— a teacher's book, including rôle-play situations

— a set of slides.

This material will be available separately from the rest.



You've decided to go to Jamaica for your holidays. You are very busy and are really looking forward to a week off. On the day you are leaving, you have a lot of things to do, and you have written them down on a piece of paper. What would you say to yourself when getting up that day, considering that you must:

- Phone station about train to airport.
- Take sun-tan lotion
- buy shirt
- pack binoculars.
- buy films
- have camera checked
- phone Alison.
- buy ticket

Use the verbs "to remember" or "to forget".

About a month after you come back from your holidays in Jamaica, you get some of the photographs you took during that week. Beginning your sentences with:

I'll never forget . . .
I remember . . .
I'll always remember . . .

Imagine what you would tell some friends about your holidays (some of the pictures are on this page!)

Look at this cartoon and complete following sentences:

She hates .....
He enjoys .....
She'd like to stop .....
to start .....
She's looking forward to .....
.....
He's not used to .....
He doesn't mind .....
He prefers .....
It's no good .....

"By Golly, this is the life, eh?"

NOTIONS [*ADVICE*] *Read the following Advice column and underline all the expressions used to ask for advice or to give advice.*

Trouble in store

When my children's baby-sitter got married, I picked out a gift at the store and asked them to send it to her directly. That was two months ago, and I haven't heard from her since. At this point, should I telephone and ask her if she ever received it (she now lives in another town)?

The simplest and most tactful way of handling the situation, I think, is to ask the store to write inquiring if the gift has indeed been received. Since packages *are* occasionally lost — or stolen — en route, you will be giving your baby-sitter a face-saving option and at the same time learning whether or not to pay the store. Perhaps it will also remind your erstwhile baby-sitter to say "thank-you".

How can I tell?

I'm 15 and about a month ago, I came to like a boy who lives just up the road from me. He's the same age as me and goes to the same school, so I see him quite often, but not in any of the lessons as we are in different groups. I like him very much, but I don't know if he likes me. Is there any way I can tell?

Don't rush him, but start off by smiling at him and saying 'hello'. Don't be too pushy or obvious, but try to make sure that you bump into him occasionally, which will give him a chance to say 'hello' back. Make the conversation light and chatty and he'll get the message that you like the look of him without you having to force the issue. It may take time, and you may find that he isn't interested in a relationship with you, but you won't feel too crushed if you haven't pushed too hard.

He drinks too much

My husband has never made any friends. He never had a pal when we were courting and we've been married for 25 years. Our children are grown-up and married. Every time we go out with anyone, he drinks too much. First he insults me, then them. I'm in my early 40s with a job I enjoy. What should I do — leave?

Presumably you feel you'd be better off without him. You have a job, get on well with people, the kids are off your hands and married — what's to stop you? If you have decided that's what you want, then nothing will stand in your way.

He's not the same

I was very much in love when I married my husband a year ago but it's turned out that he isn't the man I thought he was. He's really not interested in me or my life but only in himself, and he's always busy with his own hobbies.

Try to accept the situation and learn to live with it. You should cultivate a new interest or hobby, and not rely on your husband for companionship all the time. Make your own friends, then enjoy discussing what you do with your husband and hearing about *his* life.

Reprinted here by kind permission of
Hachette, 79 Boulevard St Germain, Paris 6

Conclusion:

It is fair to ask how far this material differs from what is otherwise available. To begin with, it is far more complex in its organisation. The teacher has a creative organisational task in recombining the several elements to suit his particular group of students. His freedom of choice is paralleled by the greater involvement and independence of the student. The student is brought into a personal interaction with the materials, for example in the 'It's All Yours' section, and the listening comprehension section of Level 1; and especially in the problem-solving activities and reading materials in Level 2. In other words, **Making Sense** has attempted to break away from a purely text-based approach and to prepare students for truly communicative activities.

THE EDUCATIONAL ENVIRONMENT AND ITS RELEVANCE TO ESP PROGRAMME DESIGN

John Swales, University of Aston in Birmingham

The seventies have seen a dramatic increase in ESP activity. The number of people in full-time ESP employment has probably increased fifty-fold and the regular appearance of advertisements outlining new ESP enterprises and requesting staff applications would suggest that the rate of increase has yet to level off. Naturally enough this quantitative expansion has been accompanied by a series of other developments. Ten years ago, ESP consisted almost entirely of EST, practitioners were few, scattered and professionally rather isolated, and communications about the subject tended to be personal and uncertain. In contrast, ESP today has become sufficiently well-established to qualify (along with teacher-training) as one of the areas designated for support under the new British Council/ODM Key English Language Teaching Scheme, several periodicals with a predominantly ESP orientation have been launched, conference and seminar papers are becoming more easily available, and collections of articles have started to appear. Other notable developments have been the consolidation of two new major ESP textbook series (those conventionally known as 'Focus' and 'Nucleus') and the fact that research into matters relating to the improvement of ESP teaching and learning is becoming quite common even at PhD level. In effect, then, the hesitant first-generation immigrants working under poor conditions and with little to rely on but their traditional ELT books are giving way to a second generation that is more articulate, more self-confident and better supported, and with good grasp of the potentialities of new technologies and of new planning and managerial procedures.

And yet, despite this substantial progress, advance has been uneven; indeed I would like to claim that, as new skills and insights have been acquired, certain old sensitivities have become lost. The fact that at first sight ESP has so often seemed to be exactly the right answer has meant that a number of recent ESP programmes have been mounted with something of the brashness characteristic of the doctor who always knows what is best for his patients. It is not unknown, for instance, to hear of institutions being given an 'injection' of ESP courses in order to improve the linguistic and educational health of the student body. However, I have yet to be convinced of the general efficiency — and certainly the cost-effectiveness — of an approach that relies heavily on curriculum design models, experience from other educational settings, pre-planning and preparatory materials writing, rather than one that attempts a maturing and organic response to the actual educational environment in which the programme is to operate. ESP at a distance is a contradiction in terms. Thus in the rest of this paper I would like to explore this sense of disquiet

at certain contemporary trends by stressing the inherent fragility of most ESP programmes. As much of the illustrative material is taken from the University of Khartoum, this paper is also something of a look-back at the first five years' work of the English Language Servicing Unit.

ESP programmes in educational institutions in the Third World (as indeed in the UK) are liable to fracture for three main sorts of reason: uncertain status, poor communications with other departments, and insufficient contact with the students' **real** world. The first of these has been relatively well documented, the third less so. Difficulties and disappointments in these areas tend to produce programmes that have high **internal** validity (quality materials, efficient intra-departmental efficiency, adequate **personal** relationships with students, hard-working staff, etc) but low **external** validity (isolation from the rest of the institution, failure to appreciate student study behaviour, poor student perception of the wider benefits of the English Course, insufficient out-of-class study, etc).

The causes of difficulties in these areas are not hard to find; indeed some are obvious because they are almost inescapable. A number are listed below:-

1 The Service Department is likely to be of low status because it offers no degrees, its work being either pre-sessional or with first or second year students.

2 Partly as a result of 1 it is likely to be inadequately represented in the hierarchy of committees and boards in the institution, this in turn leading to a risky reliance on the personal relationships created by the leader of the team with those in authority. There is also the problem of where the Service Department 'belongs'; it is not unknown for every faculty on campus to remonstrate that the department belongs somewhere else!

3 The relationship between a Service Unit and a parent English Department can be very uneasy, and an effective working spirit of cooperation difficult to create and maintain — an unease quickly exacerbated by shortages of staff and competition for good graduates, etc.

4 The individual status of the ESP instructor tends to be low because he rarely teaches up to degree level, is a plain mister (or Ms.) and in appearance and behaviour he seems less mature than colleagues in other departments. He probably shares an office, deals with small classes and adopts a varied 'school-type' teaching style. (These reflections of low status are presumably one of the reasons why it is so difficult to attract non-native speakers into the ESP field in many developing countries. The undoubtedly greater opportunities for relevant research and career

advancement that ESP offers in comparison to English literature and (probably) linguistics are outweighed by images of gangs of slaves busily trying to prop up tottering educational empires).

5 The possibility of dissociation from the educational environment may be further strengthened by certain design features of the ESP package. The expatriate employees may be recruited by methods and criteria different from those normally adopted in the institution, with the result that they are employed on different terms of service and so tend to have typical duties and loyalties. Inevitably, too, newcomers will have little understanding of local cultural attitudes or expectancies.

6 The programme may have been planned to a varying degree of detail and inflexibility in an environment quite different to that in which it is supposed to function, thus importing contemporary western pedagogical approaches that may be inopportune and counter-productive. There is 'educational shock' just as much as 'cultural shock', and it is unreasonable to expect students to switch suddenly from minimal to massive classroom participation, to accept as a *fait accompli* that the exam questions may cover other materials than that which has been taught, or to move smoothly from competitive to cooperative peer-work.

Of course, some of these isolating tendencies are unavoidable situational constraints; and in such situations the usual and laudable recourse is to establish contacts with other departments. There have been a number of splendid successes here (some are described in a recent ETIC Occasional Paper), but also many withering failures. Different attitudes to educational responsibilities, especially over the question of 'spoon-feeding', unrealistic initial expectations, administrative tangles, and lack of forward planning in the institution itself, can lead to disenchantment with the integrated approach. The ESP programme withdraws into itself, sometimes to the solipsistic ultimate of employing its **own** subject specialists! As I have already mentioned, the result may well be a programme of quality, methodologically exciting, well administered and popular with students, but it is also very likely to be firmly detached from its educational setting. Internal validity increases at the expense of external validity.

This conclusion may seem extreme but I do not believe it to be so if one accepts that an ESP programme is to be judged by what the students do outside of their ESP classes — after all, relatively effective use of class-time is neither very difficult to achieve nor a satisfactory primary objective. In order to achieve a satisfactory level of transference from the English class to other situations it is necessary to have some understanding of students' study habits. But this is easier said than done. A number of authors have

drawn a distinction between the system as it is intended to work and as it actually works. In an interesting paper based on experience in South India, Graves[2] discusses the distinction as follows:

> The formal order of any institution is the official view of its function, objectives and authority. The informal order is the same institution as perceived and operated by its members. The informal order is highly structured and orderly even though it is often a negative image of the formal order, especially where the stated objectives of the formal order are strongly at odds with the private and social objectives of the members.

Graves goes on to point out that only when the existence of an informal order or 'practical system' is acknowledged does it become possible to explain how results that should depend on a high degree of language competence can be achieved with nothing like that degree of competence[3]. He illustrates how one aspect of the South India Practical System operates like this:—

> How does a student turn in a correct assignment when it is linguistically beyond him to do so? According to the students themselves the better students must assist them and the written form of the assignment is usually so stereotyped that the record of a similar assignment from the previous year is guide enough. If this fails, the assignment can be completed by a private tutor and then distributed to the rest of the class. In some cases this assistance is rendered by the person who set the assignment. These observations are not made in any spirit of ridicule, but to show how it is possible to overcome language handicaps by non-linguistic means. It follows that where effective remedial action is not taken a student is forced deeper into these practices.

A similar pattern of parallel systems was found by Don Douglas[4] in *From School to University* —, the final report of the Study Habits Research Project carried out at the University of Khartoum 1975-77. In the course of his investigation, for instance, Douglas discovered that many preliminary year students were taking only 'token' notes in their lectures. Although they copied what they could of what they saw on the board and transcribed a small amount of what they heard, their main objective was to gain access to the notes of one of the best students as soon after the lecture had finished as possible. The fact that all the better students readily acquiesced emphasises the strength of the conventions governing the 'practical system'. Similarly, at the University of Kuwait[5], many students set up tape-recorders and microphones on the lecturer's desk, take only token notes in class and later transcribe the recorded lecture.

The price to be paid for failing to get into this practical system is nicely (or nastily) shown by my own attempts over a three-year period to run a new course in Field Report Writing for third-year Geology students at Khartoum. Officially, the report of the annual two-week field trip was worth a whole paper, with 50% assigned for the written material and 50% for a geological map. On this basis I did my homework by reading Field Report Manuals and previous reports, getting to know the members of the Department, and preparing units with such titles as 'Location Descriptions', 'Topographical Features' and 'Citation of Previous Work'. The course was a solid failure. Although innovations of this sort can bring (as they did) martyred cries from the class that they have been picked on unfairly for this extra imposition, the extent of the calamity was somewhat unnerving. In the second year I simplified the material and offered a 'ghosting' service for regular attenders, but still had very few. It was only towards the end of the year that I discovered that it had become recent 'unofficial' practice in the Department to base their assessment 90% on the geological map. Therefore, the students were devoting much of their spare time to their maps and offering token reports mostly copied from recognised exemplars. Discussion with the Department led to the following changes:-

1 A new area for the field report would be chosen; the English instructor would help devise better methods of recording verbal data in the field and would be invited to join the field trip.

2 The 50-50 rule would be re-introduced.

3 The specifications for the report would be drastically reduced.

4 The English instructor would oversee the drafts of the report, the final draft being approved, assessed and signed by him before being passed to the Geology supervisor.

5 Attempts would be made by all concerned to wean the students away from their beloved maps (map-drawing being the 'practical systems' reponse to an 'impossible' language task).

The Course was well-attended, the previous two years' materials were finally found relevant, and the joint-supervision system worked well in most cases. A practicable 'formal order' had been put into operation.

Although ELSU in Khartoum suffered from some of the fragilities mentioned under the six earlier points, it did have reasonable representation, up to Senate. In addition, the more senior members of the

Unit served on a number of committees, the support arrangements through the Inter-University Council were enlightened and quite the reverse of patronizing, expatriate staff stayed on average for 3 to 4 years, and programmes were continuously revised in the light of teaching experience. Nevertheless, we failed to achieve external validity. Although we convinced everybody else, we failed to convince the students that we were a serious department. The most striking instances of this occurred at examination time. Our largest teaching commitment was to 750 students doing a preliminary year in Biological Sciences. On evenings before Science exams one could visit the Library and find 150-200 students revising their notes; on the evenings before the English exam one would be fortunate to find 15-20. I now believe that we had failed to live up to the students' expectations of hard work in two important respects. First, our consistently small classes and informal teaching methods had prevented us from becoming academically respectable in our students' eyes; and secondly, our functional materials had deprived the students of an opportunity to utilize their rote-learning skills.

We could have catered, at least in part, for the first weakness by occasionally following the practice of 'respectable' Science Departments. For instance, if the major Science courses were conducted in part through large formal lectures, then we could have made use of the large lecture hall, if only once a term, in order to show that we too had important and academically serious things to teach.

The rote-learning question is more important and more controversial. Douglas describes the situation as follows:-

> Sudan has followed what has become a pattern in national development in that the rapid growth of secondary education after Independence has meant a shortage of qualified teaching staff and of materials. These features, in turn, have led to large classes, a reliance on didactic teaching materials, examination-orientated syllabuses. The response of the pupils has been a natural tendency to rote-learning as a strategy most likely to produce success in such an environment .... in a situation where teaching is a race to get through the syllabus so that the pupils have been exposed to the material covered in the examination, the teachers provide only the essential material to begin with. This approach to material, known as 'spotting', is believed to carry over into the University programme. Any reduction in what is offered by the lecturer for students to record is not only a waste of time but foolish — one is sure to leave out something that will be in the examination. The general shortage of textbooks, linked with the growth in numbers of school

pupils and large classes, means, of course, that pupils may have access to the text only once or twice in the term, and certainly only one short time during preparation for the examination. In such a situation the most efficacious response is to laboriously copy out the text material as available and/or commit it to memory.

Whatever the official view, there is little doubt that the school situation described in the last sentence of the quotation was largely replicated in the Preliminary Year at the University, especially in the larger faculties, and equally little doubt that students' practice hardly altered when they crossed the presumed divide into tertiary education; indeed it is possible that then study habits became even more traditional because of the problematic transition from Arabic to English medium. However, we were slow to recognise these realities and preferred to uphold the official view that rote-learning was to be strongly discouraged. On the few occasions in which we did allow a memorization element in our courses the results were dramatic. For two years we required the first year Law students to 'know' Arnold Spencer's[6] handbook on 'Verb-noun Combinations in Legal English'. The copies were extremely well-thumbed by exam-time and knowledge of the contents impressive. Oddly, we were rather ashamed of having succeeded in making the students work so hard in this way and the requirement was gradually phased out.

Dual-teaching for a Departmental objective, such as in Geology,[7] offers one arduous route towards the 'pick-up' of ESP objectives elsewhere in the curriculum. Another, which has been developed principally by James Crofts, involves a very careful consideration of course content. He writes:-

> If the materials writer does not succeed in avoiding both the Scylla of excessive familiarity and the Charybdis of unforeseen ignorance, the student may not be able to use the subject matter in the intended way to learn the intended linguistic and rhetorical points .... when students are very familiar with a topic they will be bored with any treatment of it as something not familiar, and they will tend to draw on their existing knowledge rather than on the information or point of view presented in the ESP materials. When they do not have already the knowledge that is assumed to be known in the particular treatment of a topic given in the ESP materials, they will be unable to cope with the topic in the intended way without the help of the ESP teacher or some other source of information[8].

As failures of both kinds are all too common, whether with published or 'in-house' materials, or whether with authentic or adapted texts, this

problem is a very serious one for the course designer determined to create appropriate and effective materials for his particular educational environment. Of the various approaches adopted, the one chosen by James Crofts in his 'Writing Course for Second Year History Students' is particularly worthy of comment. Rather than taking content from the history syllabus itself, he endeavoured to ascertain areas for ESP exploitation that could have well been included, but in fact were not. These might be either straightforward gaps in the syllabus or relevant background information such as historical geography, or the economic conditions related to particular historical events. After an uncertain experimental period, it became clear that the value of the ESP work to their specialist work was becoming obvious to the students, as was the value of the English used to teach the material.

In this paper I have attempted to see what lessons for programme-design I have learnt from five years recently spent in a relatively advantageous EAP situation in the Third World. As so often happens in real life, the conclusions are elementary, indeed trite. Any success is hard-won, and of uncertain duration; small groups of ordinary individuals have almost no chance of radically transforming the situation they find themselves in; stated policies and objectives are not necessarily reflected in actual practices. However, the major lesson has been that it is important for a course-designer to know not only what his students can do and need to do but also to know what they would be willing to do or could be persuaded to do within the confines of their particular educational environment.

Earlier I suggested that, as new ESP techniques have been developed, old educational sensitivities have been lost. To my mind this is well illustrated by John Munby's recent book. The major part of the book offers a more comprehensive and more sophisticated set of techniques and parameters for analysing learner's needs than have been available up until now, supported by interesting discussion of many of the factors that he believes need to be taken into account. However, in the Epilogue he claims that other variables 'which are constraints upon the implementation of the syllabus specification' should not be considered 'until after the output from the operational instrument has been obtained'. He lists five such constraints:-

1	Socio-political	(eg status of English)
2	Logistical	(eg number of trained teachers; money)
3	Administrative	(eg timetable)
4	Psychopedagogic	(eg learner's motivation and expectations)
5	Methodological	(eg selection, adaptation and production of suitable materials)

Few people, I imagine, would object to the relevance and scope of these five constraints and not many more would want to claim that the choice of methodology might not in general be most usefully seen as subsequent to a syllabus specification (**in general** is added advisedly because the tenor of this paper has been to emphasize the risks attached to pursuing global strategies indifferent to local conditions).

However, the procedure suggested by Munby for handling the first four constraints is rather more controversial. Although these constraints are not to be considered until the needs-determined syllabus has been specified, there can be no doubt that the syllabus designer in the due process of his investigations cannot fail to develop some appreciation of where the constraining areas (and their approximate severity) are likely to be when they are directly confronted in the implementation stage. Given this, there would seem to be only two rather rare situations in which the Munby procedure could be justified. One is where the ESP project carries sufficient 'muscle' to have a realistic chance of getting the syllabus-specification imposed with relatively little modification on the situation for which it has been constructed. If this is not possible — and I would contend it rarely is — then the operation of the 'instrument' reduces itself to an academic exercise. After all, there is no more point in designing a syllabus requiring 1000 class hours, knowing that the maximum possible allocation will be 200, than in drawing up plans for a private residence of twenty-five rooms in the knowledge that there is only finance for a town-house of five. The second situation is one in which the constraints are so weak that it is possible to work realistically on the basis of specifying a syllabus that will fully realize a learner's goals (most typically in one-to-one courses with few limits on time or money), but it is precisely to this unusual type of situation that the Epilogue does not apply. Most ESP work takes place within established institutional settings or within budgeted training programmes, and here it is surely pragmatic to acknowledge and take some account of the socio-political, logistic, administrative and psycho-pedagogic variables concurrently with and not subsequently to the identification of learners' needs.

In the preceding paragraph I have intimated that the Munby model, unless used with fine discrimination, has the serious disadvantage of offering a poor return on investment of time, energy and mental effort. It can also be argued that there is a positive advantage in **not** following a procedure that relies on a deliberate separation of an ideal programme and the awkward intrusions of reality. This is because many people have found that study of the potential constraints listed in the Epilogue is itself often so useful in determining the general shape of the syllabus and the outline typology of learners' activities; to know that only fifty more hours have been made available, or to know that half the staff will be part-timers, or to know that

the students will always have a two-hour practical before their English classes, can concentrate the mind as wonderfully as does, according to Dr Johnson, the thought of imminent execution.

I can therefore suppose that using Munby will produce the paradoxical result of encouraging sensitive awareness of the individual learner but discouraging a parallel awareness of the background situation. On the one hand the Munby model inflates the role of the ESP Course-designer to that of an entrepeneurial and independent educational innovator, while on the other it limits by calculated procrastination a proper understanding of the educational processes which the ESP programme is designed to support. This supposition is made not so much from in theoretical objections to the strategies discussed by Munby for designing a communicative syllabus but rather because I have come to believe — and have tried to show — that knowledge of how the educational environment in which the ESP programme is to operate **really** works is one of the Course-designer's or Project-manager's first priorities.

Notes and References

1 I would like to thank Phil Skeldon (until recently Head of the Scientific English Section, ELSU, University of Khartoum) for valuable comments on a draft of this paper. Any absurdities which remain are, of course, my own.

2 G F Graves *'Communication and Language'*, ETIC Archives 954 OX ONX 1975.

3 But as Skeldon has observed, the acquisition of a degree via the 'practical system' leads to severe problems for the graduate employee when faced with the real world of work, especially in the private sector, and hence to employers' complaints about 'falling standards' in the universities.

4 Don Douglas *From School to University,* Khartoum University Press, 1977.

5 David Blackie (personal communication).

6 Arnold Spencer **Noun-Verb Expressions in Legal English,** Khartoum University Press, 1975.

7 A roughly comparable scheme has been described in ESPMENA 6, under the title *'Preparation and Marking of a Botany Essay and Some Possible Implications for EST'.*

8 J N Crofts *'Subjects and Objects in ESP Teaching Materials'*, a paper presented to the Second Regional ESP Conference held at Isfahan in November 1977.

9 John Munby *Communicative Syllabus Design,* Cambridge University Press, 1978.

WAR STORIES AND ROMANCES: Exchanging Experience in ELT

Roger Bowers, ELCD, The British Council

So much valuable and interesting work is being conducted in many areas of English language teaching, and the teaching of 'communicative English' in particular, that it may seem churlish for this paper to strike a restraining, perhaps even admonitory, note. The wide variety of activity and experiment is apparent not only from this volume but from preceding documents in this series; from papers presented to such seminars as those in Bogota (1977) and Mexico (1979); from reports in the professional journals; from general observation and discussion (eg the British Council's Lisbon Conference on the Direct Teaching of English: March 1979); and of course from the continuing flow of commercially published course and source materials (eg Altman ed., 1979).

Such indeed is the flow of information about 'work in progress' in classrooms and lecture halls around the world that one can sympathise with one journal editor's reaction (though not the tone of it) when offered a description of part of an ESP project in Algeria recently: we have, he said, 'had quite enough of this sort of stuff over the past few years'. It is undoubtedly true that not only editors but also readers of journals can find it exercising and on occasion fruitless to wade through a series of anecdotes about English teaching through different approaches with different resources in unrelated and possibly esoteric contexts: war stories and romances, tales of experience and of the unexpected, echoes in the background of 'I did it my way'.

Yet, if we do not rely upon reports of actual experience and experiment, it is difficult to establish the current 'state of the art' in language teaching, and more difficult to suggest where it is or should be going. While empirical studies may not have that power to enthuse and to provoke innovation which well-articulated and sensitive theoretical insights may from time to time display (see for discussion Wilkins 1972, chap 8), they do have more than a reactionary role to play: they serve not only as a check against what might be the more optimistic claims of a particular approach or course, whether implicitly or explicitly made, but also to indicate possible new approaches or course components, by making available to a wider consumer public the ideas of individuals or teams working within the same general field.

Anecdotes, then, as reports of comparable experiences in teaching and learning — the successful and the unsuccessful — are a valuable and necessary part of the literature of the profession. But they are valuable only in so far as they are comparable within the field of language teaching as a whole, relatable to the particular learning contexts which are the concern of the individual reader, and capable of being evaluated as

accurate and comprehensive statements of pedagogic activities and the pedagogic results of those activities.

These criteria of comparability, relevance and validity/reliability are as important to the overall assessment of the value of observational studies as they are to the overall assessment of language testing devices. Only here we are assessing not the use of a limited range of techniques for evaluating what is the relatively well-charted area of individual linguistic competence, but the combined use of a wide range of techniques and materials and environments and skills for the stimulation of pedagogic processes as well as the fulfilment of linguistic goals — an area much broader and less well mapped than linguistic competence pure and (?) simple.

A rapid survey of available reports and studies throws up certain obvious constants and variables, the former allowing a degree of immediate comparability and a recognition of certain features which typify the current 'fashions' (no derogatory force is intended) in ELT. Without having read the papers which are being contributed to this volume, I have no doubt that along with a number of new insights they will reflect the profession's existing preoccupations — with purposive language use rather than the rote learning of linguistic usage; with the selection of areas of language use relevant to a given body of learners rather than with the general specification of and production of materials for English as a whole; with intermediate and advanced learners rather than with the beginner (perhaps because the previous preoccupations are more comfortably pursued with non-beginners?); and with active, learner-centred methods rather than with more directly teacher-centred strategies. These are (as will be emphasised later) very loose characterisations of current attitudes. They are possible at all because descriptions are available of work in progress and of materials being produced and used in a wide range of contexts. They are accurate only to the extent that I have read widely enough, and interpreted correctly, the descriptive literature available.

It is of course important that such generalisations, if accurate, should be made. They enable the individual teacher or materials producer to 'place' himself with regard to general developments, confirming his own attitudes or suggesting ways in which he might profit from a broader awareness of current practice. They make it possible to identify those areas where current practice is and is not in tune with particular theoretical arguments from linguistics, education, sociology, psychology etc. They make it possible to offer realistic general prescriptions for the next wave of innovation and experiment by means of which the profession will progress.

There are, however, difficulties in establishing such generalisations from work reports, inconsistencies which appear and gaps which are apparent

because alongside the constant features there are many variables. I firmly believe that a batch of authentic educational studies in which the heterogeneity of the natural learning context has been preserved and the actualities of teaching and learning reported is likely, in the long run, to be of greater value than a batch of experimental studies where the variables have been controlled but reliability and focus attained at the cost of immediate relevance to authentic contexts. Nevertheless, the variation which is apparent in project reports — and the relevant information which is often, it must be said, omitted — does make comparison, evaluation and transfer to new contexts of use a difficult process. What sort of questions should we be able to ask, and answer with some confidence, when we read project reports?

We want to ask how project 'B' compares with project 'A', in its approach and content and also in the results it achieves.

We want to ask, of project 'C', exactly what elements it comprises, and which of these can be reproduced in a new teaching/learning environment significantly different from that for which project C was designed.

We want to recognise what elements of planning and implementation have not been covered in a project report, recognising that in projects concerning materials design (for example) the important area of classroom implementation and effect frequently requires further study and description.

We want to ask how the project in question achieved its agreed objectives, and how those objectives related to the objectives of other projects. Further specification of 'areas of fulfilment' may be valuable, to avoid the qualified approval encapsulated by the 'On the whole the project was successful' which the natural pride and circumspect modesty of project workers may result in if refined evaluation measures have not been employed.

We want to ask what evaluation measures are regularly used, and how comparable they are when the contexts of learning and the ends sought differ so widely and in so many respects.

We want to ask, against the background of the same disparities, what general fashions are in fact discernible, in terms more specific than those employed in the section above.

In attempting to answer such questions, in order to evaluate the work of others in the field, and indeed to describe comprehensively and objectively our own work, we come up against the problem that there is no agreed

metalanguage for many of the activities and even objectives which comprise a part of what we may call the current communicative approach to language teaching and learning.

For earlier approaches (perhaps simply because they are earlier, ie established and not still evolving) a metalanguage with generally agreed meanings is available. It is possible, therefore, to ask a trained teacher the following questions and get a fairly reliable response: Do you use the direct method? Do you use pattern practice? What do you think of the grammar-translation method? What sequence do you suggest for the introduction of the tenses? What stages do your lessons involve?

Ask a similarly trained teacher the following questions, however, and a good deal of negotiation of meanings would be necessary before any kind of answer could be given: Do you use the communicative approach? Do you use role-play? What do you think of information transfer exercises? What sequence (if any) do you suggest for the introduction of notions? What stages do your lessons involve?

I am not suggesting for a moment that, for example, because it was at one time possible for many teachers to use the same terminology to describe the stages of their lessons — perhaps in terms of adherence to or departure from the 'Herbartian' steps of preparation/presentation/induction/generalization/application — therefore their lessons were in some sense better. No value judgement on 'methodologies' is intended. Nor would I argue that teachers currently are not able to offer an analysis of the structure of their lessons. But notions of lesson structure have changed considerably in many learning contexts, and we are perhaps less aware of the value for descriptive purposes and for the training of new teachers of defining in greater detail what is meant by such terms as **presentation; controlled and free role-play; simulation; group problem-solving** etc in terms of which more overtly interactional approaches tend to be described. Some measure of agreement on the meaning of general terms such as these (and more directly linguistic terms such as ***notion, function, concept*** etc) and a wider recognition of the need to qualify the use of such terms in order to specify exactly what is referred to would make it easier to establish correspondences between project descriptions and extract from inevitably incomplete summaries a fuller picture of precisely what a particular approach involved or a given coursebook comprised.

Having, as football managers are wont to add, said that, it is difficult to see quite where one would best start in constructing a generally applicable methodological metalanguage. One possibility would be to attempt, in abstract terms, a statement of the main parameters by which approaches and particular learning strategies, both ideal and as realised in given

materials and projects, might be expected to vary. Education would offer such parameters as **teacher-centred** versus **learner-centred, sequential** versus **holistic, cognitive** perhaps versus **behaviourist**. Language would offer such parameters as **formal** versus **functional; spoken** versus **written** (in process and in goal); **'general'** versus **'specific'**. Other parameters might define the psychological and physical environments within which teaching is conducted or materials made use of.

Alternatively, as I indicate in the sections which follow, it may be possible to approach the task empirically. What, first, are the different components which make up given project approaches? Can categories of ELT activity be established? Can these categories be presented in a systematic way which indicates their inter-relationships, the parameters according to which their distinctive characteristics can be places? Is it possible to describe new projects in terms of these parameters, and if necessary to reconstruct the overall framework as changes in methodology make the basic parameters no longer valid?

The framework presented in Diagram 1 arises from the consideration of such questions and the identification (stimulated by Bligh 1976, though I depart very considerably from his specifications and techniques) of the following range of method components for current language teaching:

individual (self-access study)
teacher presentation
supervised individual seatwork
media-supported self-access study
question/answer
group and class drills/exercises
class discussion/conversation
teacher/student conversation
student/student conversation
problem-centred group activity
communication games
controlled simulation and role-play
free dramatisation and role-play
interpersonal groups, with and without the teacher

In considering the above (no doubt inexhaustive) list of possible LT classroom behaviour patterns, each of which could be defined in great detail and sub-categories established, certain general distinguishing features become apparent.

What is the role of **text** — print and non-print teaching materials — with relation to that of **context** — the interpersonal resources of the real or contrived learning environment?

What is the role of the **teacher**, extending from very loose involvement with the learning process to complete control over it?

What is the **status** of the language being employed, extending from fully purposive **use** of the target langauge to fully contrived **mention** or citation of it?

What kind of **interaction** is generated, from fully genuine interpersonal contact to fully artificial joint activity?

What kinds of linguistic and cognitive **tasks** are involved, and in what proportions and sequences?

It is impossible, in establishing such parameters out of a study of current techniques and materials, not to identify features which to some extent at least typify current language teaching and which may appear to make some degree of judgement regarding less current methods. In fact, however, judgement is a separate exercise following upon that of description and comparison. Thus, in Diagram 1, the use of the term 'genuine' for one end of the 'interaction' spectrum is no more a value judgement than the use of let us say 'text' at one end of another major spectrum. That is to say, it is as legitimate to say that genuine interaction should, or should not, form a major part of the learning process in a given teaching/learning situation as it is to say that there should or should not be a heavy reliance on text.

Diagram 1 indicates, then, that the methodological components which were listed fairly randomly above can be more effectively placed within a grid, the primary axes of which are **direct/indirect teacher involvement** and **genuine/non-genuine interaction.** The two top boxes suggest that additional horizontal axes might be established of **text/context** and of **mention and correctness/use and communication,** these largely correlating with the 'interaction' parameter.

As an example, therefore, we might take three extremes within the grid and two intermediate components:

Individual self-access study: this involves only indirect teacher involvement (in organising the activity, providing the materials); high reliance on text or other media support (given the absence of teacher as controller and presenter); high probability that the focus will be on mention and correctness (these being open to presentation, practice and subsequent evaluation on the basis of individual text-based work); and no genuine interaction (since there is no-one to interact with).

Teacher presentation: this involves, by definition, direct and central teacher involvement; no genuine interaction (since uninterrupted

presentation allows no scope for student initiation of interactions); a high reliance on text or other media (either through direct use of it, eg reading to the whole class, or because the teacher is likely to be employing monologue originally written to be read); and high emphasis on mention and correctness (since the students' role is that of recognition and interpretation of meaning, not reaction and communication).

Interpersonal group without teacher as member: teacher involvement here is by definition indirect; there is a high reliance on the context, ie personal resources of the learning environment, rather than on text; use and communication by definition outweigh mention and correctness; and the interaction is genuine.

Communication games: teacher involvement here is fairly indirect but more important than in the interpersonal groups (in terms of structuring the group exchange and perhaps participating at crucial points); context is likely to be the major contributor to the communication, but the role of text will, given teacher structuring, be more important than in the interpersonal groups (eg a work card, a problem definition); use and communication may be more important than mention and correctness but structuring of the communication allows for some focussing on form as well as function; and the interaction, though genuine in that language is used for a particular purpose, is less than fully genuine in that the communication task is specified for a given group rather than freely generated by it.

Class and group drills and exercises: teacher involvement is fairly direct, but not totally central to the exchanges which may after initiation (and particularly in groups) proceed without the need for teacher intervention; there is a fairly high reliance on text, again particularly as a surrogate for personal teacher involvement; focus will generally be on mention and correctness rather than use and communication, that is, on responses which are predictable and objectively evaluated; and interaction will thus be in general non-genuine.

These examples will serve both to indicate how the components elsewhere on the grid can be characterised and to show how general and in need of refinement the specification of components and parameters at present is. But it is in the areas where dissatisfaction arises that relevant questions also arise.

Is the **text/context** cline, for example, a valid one? Is the **type** of text not relevant?

Is it true that student/student conversation and teacher/student conversation achieve the same '**genuineness**' of interaction? What then is

the difference between teacher/student conversation and teacher/student question and answer?

Are **use** and **correctness** conversely related?

Are the major **axes** the right ones to have chosen, or is another grid possible?

These are all questions on which further discussion would prove valuable, using the evidence from actual teaching/materials projects.

There are in addition important features which are not built into the grid offered, but which would need to be superimposed either as a separate interlocking grid or through some kind of checklist of accompanying factors. Three areas in particular would need to be covered. The first is that listed above as 'kinds of linguistic and cognitive task'. Sub-specification of this area, paralleling the sub-specification of formal usage methods listed in Mackey (1965), might involve such tasks as:

form-to-function correlations
function-to-form correlations
topic-restricted transfer and transcode
authentic text study
structured simulation and role-play
problem-solving and thinking
communication games
project and syndicate work
reacting
free dramatisation and role-play
learner-generated programmes of language improvement

In some cases, these 'tasks' correlate closely with components of Diagram 1; in others a range of methodological contexts for a given task is possible. The possibility certainly exists of building up an inventory of cognitive/linguistic tasks which would cross-cut the inventory of method options (with some null cells) in order to provide a detailed network of the activities being performed for particular pedagogic ends. The second area to develop would be the relatively straightforward one of physical environment, which could be easily covered by a checklist — size of class, type of room and furniture, aids available, noise levels present and allowed etc.

The third area, less amenable to objective description but perhaps more relevant to final evaluation, would be that of the psychological environment — the pre-existing attitudes and motivations of teacher(s) and students

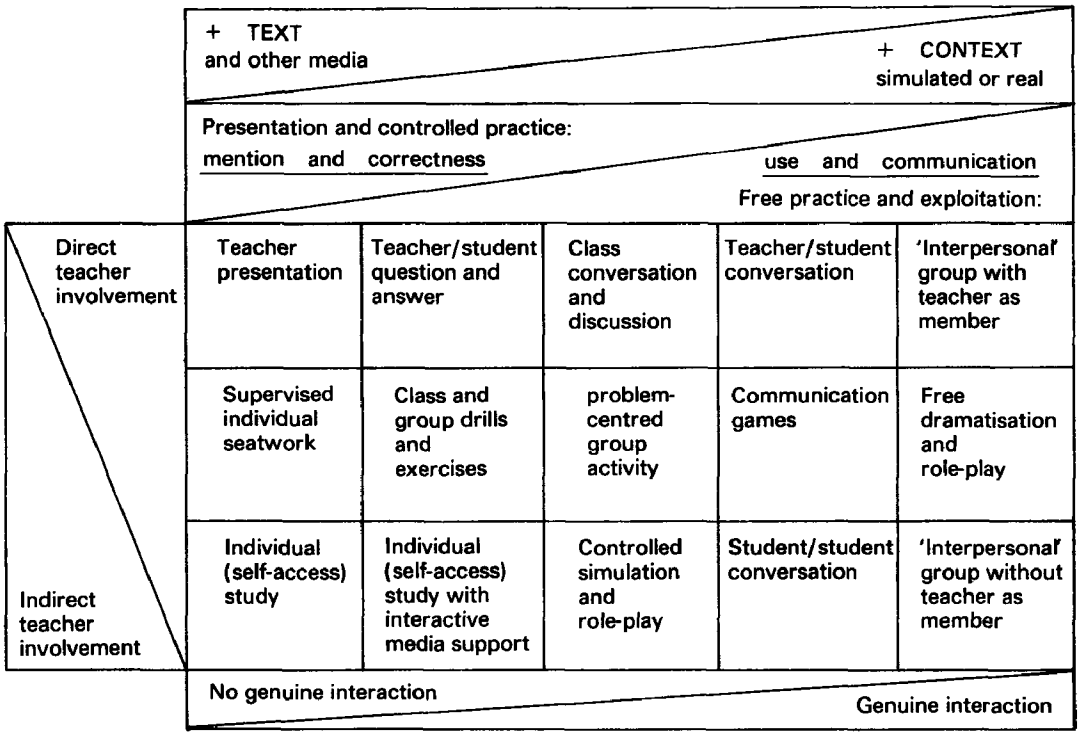
and authorities, the effect of experimenting and of observing on the performance within the project of teacher and of students etc.

These three sets of information should, it seems to me, be available for any project if the more overtly methodological comparisons between projects are to be correctly drawn.

One area remains to be resolved, and this is one which it would be inappropriate to embark on in a paper of this kind. (I hope to give this extended treatment elsewhere: see Bowers 1979b). This relates to the adequacy of the participant's report on the implementation of a teaching project. While correctly devised evaluation measures may assist in assessing the extent to which a project has achieved its given goals in terms of student learning, we do not at present have an objective means of describing learning and teaching processes in action, though many current approaches stress the importance of the process as well as the goal and may well incorporate measurement of the learning process — classroom and group activity — as an important element in overall assessment. Adequate project description must, in my view, include not only detailed statements of aims and descriptions and exemplification of materials and initial and terminal student behaviours or competences but also a comprehensive description of the teaching and learning processes generated, which in language teaching terms means a detailed description of the verbal behaviour of teacher and students. Without such information, not only is the picture gained of the achievement of a project incomplete, but a teacher elsewhere hoping to learn from the project report has inadequate information upon which to reproduce the experiment, particularly since teaching materials rarely indicate with any precision how they should be introduced and used in the classroom. It is very often the functional language of the teacher, cementing together as it were the bricks of text, which differentiates one teacher's approach from that of another. As I have already suggested, materials production project reports often fail to cover adequately this aspect of the use of materials.

I have apologised in advance for the admonitory tone of this paper. Its effect may perhaps be mitigated by an equally strong apology for the preliminary nature of the suggestions which are offered. The proposals above, exemplified in Diagram 1, are provisional and demand refinement: this paper aims to stimulate rather than to state. But some means of comparison, some set of coordinates upon which the various findings of current practical research can be placed, seems to me essential if that research is to feed into the general development on an empirical basis of the teaching of English, if future war stories are to be avoided and the path of true — authentic — education to run smooth.

Diagram 1


+ TEXT
and other media
+ CONTEXT
simulated or real
Presentation and controlled practice:
mention and correctness
use and communication
Free practice and exploitation:
Direct teacher involvement
Indirect teacher involvement
Teacher presentation
Teacher/student question and answer
Class conversation and discussion
Teacher/student conversation
'Interpersonal' group with teacher as member
Supervised individual seatwork
Class and group drills and exercises
problem-centred group activity
Communication games
Free dramatisation and role-play
Individual (self-access) study
Individual (self-access) study with interactive media support
Controlled simulation and role-play
Student/student conversation
'Interpersonal' group without teacher as member
No genuine interaction
Genuine interaction

References

BLIGH, Donald
Teaching Students. University of Exeter Teaching Services 1976

BOGOTA
English for Specific Purposes. An International Seminar. The British Council, Colombia 1977

BOWERS, Roger
The Individual Learner in the General Class. In Altman, H.B. (ed) *Foreign Language Learning. Meeting Communicative Needs.* Pergamon 1979

BOWERS, Roger
Verbal Behaviour in the Language Teaching Classroom. PhD thesis. University of Reading (1979 forthcoming)

LISBON
Lisbon DTO Conference: Preliminary Discussion Documents: Final Report. The British Council, London 1979

MEXICO
English for Specific Purposes: An International Seminar. The British Council, Mexico (forthcoming)

WILKINS, David
Linguistics in Language Teaching. Arnold 1972

SYLLABUS DESIGN FOR SPECIFIC PURPOSES

Roger Hawkey, ELCD, The British Council

This paper is concerned with the analysis of learner needs and with what happens once the needs analysis or profile exists. It will examine the theory and practice of a particular needs analysis model; present and discuss an application of this model in the field; consider the relationship between the stereotype participant taken as the starting point for a needs profile and the real-life learner on whom we must eventually focus; discuss the possible influence of a needs-analysis approach on the actual learning/teaching process; then, finally, look for a possible route from goal-oriented syllabus to pedagogical syllabus and materials development.

The model which this paper will use as its starting point is John Munby's *'Processing Model for Specifying Communicative Competence in a Foreign Language'*,[1] (a study of the relationship between communication needs and the English required for specific purposes). I choose this particular model because I have actually applied it in various purpose-specific syllabus design situations.

It is necessary at this point to give at least an outline of Munby's needs analysis instrument so that its viability can be examined more closely and its possible role in the overall process of designing programmes to meet needs can be discussed.

The Munby model is concerned with what are assumed to be two essential early steps in course design; it claims that where it is possible to identify the purposes for which the target language will be required, a valid profile of the communication needs of a particular participant or participant stereotype can be produced. Such a profile can be drawn by starting with basic, objective facts about the learner and working systematically forward through an ordered set of the variables affecting his target language communication. These variables are identified and organised as the parameter of the *'Communication needs processor'* (CNP), which is the first part of what might be called a two-part processing instrument (see Figure 1).

Thus, if you have a reasonably homogeneous group of learners and have to design an appropriate course for them, you might **begin** by looking for answers to a logically-sequenced set of questions about their target needs. Answers to the sets of questions under a particular parameter may be useful input for answers required under subsequent parameters.

---

[1] Now published as *'Communicative Syllabus Design'* (CUP 1978)

The kinds of questions asked and the headings of the parameters they belong to are, in summary, the following:

O **Participant (P)**

(Base-line data for the CNP)

Questions, on P's age, sex, nationality, L1 and target language

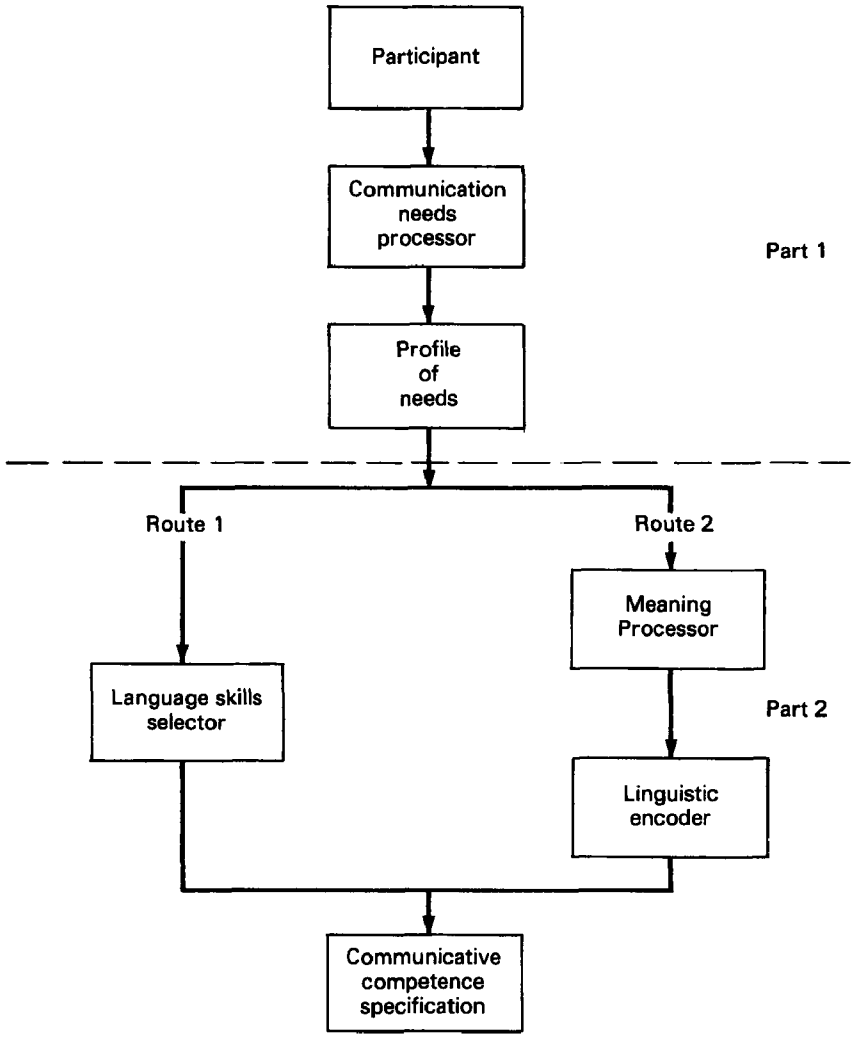


Figure 1 **Model for specifying communicative competence**

1 **Purposive Domain**

Questions on the type of ESP concerned ie EOP or EAP? Central focus of work or study; subsidiary subject areas

2 **Setting**

Questions on where English will have to be used.

Questions on when it will be used.

Questions on the psycho-social characteristics of the setting — to be selected from an inventory of characteristics provided.

3 **Interaction**

Questions on the role of the participant, the identity of those with whom he will have to communicate and his relationships with them, the latter again to be specified by selecting from inventories of possible social relationships provided by the instrument.

4 **Instrumentality**

Questions on the **medium** (spoken or written), **mode** (monologue, dialogue etc) and **channel** (tape, radio, correspondence etc) through which the learner will have to communicate in English.

5 **Dialect**

What national or regional dialects will the participant need to be able to handle?

6 **Target Level**

What values may be assigned to the defining characteristics (eg size, range, delicacy, speed, flexibility) of the communication the participant will have to cope with? How much tolerance of the participant's failure to handle communication at full target level can be expected from those with whom he is dealing?

7 **Communicative Event**

What is actually happening when the participant has to take part in various communicative activities in English? What **are** the *communicative activities that he will have to take part in? What are the* most likely topic areas or referential vocabulary categories for such activities?

8 **Communicative Key**

Questions on the manner, tenor or tone of the activities comprising an event.

Each activity can be characterised by selecting appropriate superordinate adjectives from a comprehensive 'attitudinal tone index' provided for this final parameter of the first part of the model.

This kind of needs profile thus provides the course designer with relevant information on who has to communicate in English; on what topics; where; with whom; how; at what level; for what activities; and in what tone. If this is the first step, the next is to produce a detailed syllabus specification of the language, skills, functions and forms required to handle such target communication. The second part of the model (as shown in Figure 1) is designed to do this.

As Figure 1 also indicates, there are two alternative routes from needs profile to communicative competence specification, the first via the **'language skills selector'**; the second via the **'meaning processor'** and **'linguistic encoder'**.

The **language skills selector** enables the course designer to choose specific language skills required to enable P to do what his profile of needs says he has to do. A taxonomy of **micro-skills** is provided from which to select on the basis of CNP data. A Munby language skill is a concept much more finely delimited than the traditional four skills of listening, speaking, reading and writing. Each of his micro-skills consists of:

an operational element
(eg 'understanding', 'interpreting', 'producing' or 'expressing').

plus

a communicative feature
(eg 'intonation patterns'; 'information' or 'relations between parts of a text'.

plus (if required)

an extension
(eg 'through variations of tone of nuclear shift'; or 'through lexical cohesion devices of hyponymy').

Thus, examples of micro-skills would be:

'Producing intonation patterns expressing attitudinal meaning through variation of tone or nuclear shift'.
or
'Understanding relations between parts of a text through the lexical cohesion device of hyponymy'.

The taxonomy is comprehensive, covering the following groups of micro-skills, productive and receptive:

motor perceptual skills

skills enabling meaning to be conveyed through intonation

skills enabling meaning to be ascertained through word formation or context

skills required to handle explicit and implied meaning (conceptual and functional)

textual cohesion and discourse coherence skills

summarising skills

skimming and scanning

study reference skills

oral discourse skills

expository writing skills

information transfer skills

If the course designer selects from the taxonomy the skills his learner has to master — according to the needs profile — he ends up with a certain kind of syllabus specification of the learner's target communicative competence.

The alternative route towards this end is through **the meaning processor** and **linguistic encoder.** Using the same input (ie the profile of communication needs) the course designer interprets each of his P8s communicative activities in terms of micro-functions marked for attitudinal tone. In other words, he selects from **the inventory of micro-functions** (modelled closely on David Wilkins 1976 categories [2]) functions required, productively and receptively, for each target communicative activity. Each micro-function is then marked for attitude or tone using appropriate adjectives from the sets of hyponyms in the model's attitudinal tone index.

Thus, the **communicative activity** of **'a waiter attending to customer's order'** might involve the waiter's producing the following **units of meaning:**

[2]See *'Notional Syllabuses'* D Wilkins, OUP 1976

UNITS OF MEANING:

MICRO-FUNCTION + ATTITUDINAL TONE MARKINGS

suggest	[+personal], [+deferential] [+encouraging]
advise	[+personal], [+deferential]
predict	[+cautionary], [+deferential]
describe	[+discriminating], [+patient]
affirm	[+lively], [+pliant]
question	[+helpful], [+efficient]
confirm	[+efficient]
explain	[+concerned], [+apologetic]
define	[+discriminating]

The same activity might involve **receptive** handling of a customer's units of meaning including:

want	[+fastidious]
intend	[+ semi-formal], [+ sure]
approve	[+ discerning]
command	[+peremptory]
request	[+formal]
decline	[+acknowledging] etc.

Such units of meaning are ready for the next step, that of **linguistic encoding**. This produces one or more language realisations for each unit.

eg suggest [+personal], [+deferential], [+encouraging]

'May I suggest the crab?'

approve [+discerning]

'Yes, I'll have that'.

'That sounds interesting'.

The course designer choosing this route for a particular activity ends up with a syllabus specification in terms of **functions** + **tones** + **actual language** representing what is termed the 'essence' of target communicative competence.

The choice of route is not, of course, arbitrary. Course designers using the Munby instrument will find that it is the type of participant and more particularly, the type of activity he has to perform in English that really decides. The syllabus for a learner whose priority is reading and interpreting specialist area English text required for his studies, for example, is probably more appropriately specified in terms of **micro-skills**. A learner who is to be trained for a job involving mainly talking/listening activities (like our waiter above) seems more likely to require a **micro-function** based target syllabus.

Thus then, the essence of the model — but not, of course, the whole picture. It should be instructive at this stage to show an example of the instrument applied. This will make it easier to discuss certain points concerning its validity and practicability.

The background to the needs profile that follows was a request from the Polytechnic of Ciudad, Guyana, Venezuela for help with syllabus design for students of mechanics, metallurgy and electrical engineering. The profile itself follows an orthodox Munby path. Footnote numbers indicate points of theory and practice relevant to the present discussion, especially the question of the relationship between a stereotype participant and a learner as a real human being. For convenience the notes concerned appear on the right hand side of the page, while the profile appears on the left.

COMMUNICATION NEEDS PROFILE

0.0 **Participant**(B)

0.1 **IDENTITY**

0.1.1 Age : minimum 18; maximum 40s; mean 22-25.

0.1.2 Sex : male and female; considerable majority male.

0.1.3 Nationality : Venezuelan.

0.1.4 Place of residence : Guayana.

0.2 **LANGUAGE**

0.2.1 Mother tongue : Spanish.

0.2.2 Target language : English.

POINTS OF PRINCIPLE AND PROCEDURE

(B) **Participant**

Munby uses the word 'Participant' rather than 'Learner' 'because it 'is a suitably unmarked term of our input.' *(Communicative Syllabus Design,* p. 52.) This reflects the essentially **sociolinguistic** character of the Munby approach and his view that 'implementational constraints' including, among others, the psycho-pedagogic ('eg learner's motivation and expectations : traditional style of learning etc.' (ibid p. 217)) and the methodological **'belong to the next stage in course design and should not take place until after the output from our operational instrument has been obtained.'**

This is a significant and perhaps controversial point that will be discussed further in the context of the relationship between participant/stereotype and actual learner. It is also relevant to the whole question of goal- and process-oriented syllabuses.

CASE STUDY

IUP Ciudad Guayana

ENGLISH LANGUAGE COMMUNICATION NEEDS PROFILE OF STUDENTS ENTERING THE POLYTECHNIC.(A)

POINTS OF PRINCIPLE AND PROCEDURE.

(A) **Data Collection**

Munby does not atempt to specify procedures for the actual **collection** of relevant data. Clearly, the instrument as it stands is not designed to be used as a questionnaire though questionnaires could be developed to elicit some of the information required. It is probably better, however, to use a **variety** of methods of data collection, some of them used as crosschecks on others. In Venezuela for example, profile data were collected through:

- visits to all Departments of the Polytechnic;
- discussions with the **dirección**, advisers, teaching staff and students in all relevant subject areas;
- a study of syllabuses for all specialist materials accessible only in English;
- discussions with all ESP teaching staff;
- a study of existing ESP materials prepared by the English Department;
- study and discussion of other available ESP materials and papers;
- contact with employers and employees in local organisations for which the learners concerned worked or might work.

COMMUNICATION NEEDS PROFILE

0.2.3 Present level/command of target language; false beginner to elementary(C)

0.2.4 Other languages known : nil significantly.

1.0 **Purposive Domain**

1.1 **ESP Classification** : English for discipline-based educational purposes; English studied concurrently with specialist subjects.

1.2 **Educational Purpose**

1.2.1 Specific discipline : engineering.

1.2.2 Central areas of study : Basic Mechanics
Mechanics or
Metallurgy or
Electrical Engineering

1.2.3 Other areas of study : Mathematics, Chemistry, Physics, Descriptive Geometry, Technical Drawing

POINTS OF PRINCIPLE AND PROCEDURE

(C) **Command of target language**

A broad assessment of participant's current competence in English might seem to contradict Munby's assertion that 'implementational constraints' should only be taken account of **after** the objective profile and target syllabus specification have been completed. Surely the learner's current TL competence is a significant implementational factor, which is either an influence on the selection of skills/functions in the second part of his model (ie **before** 'the output from (the) operational instrument has been obtained') or irrelevant at this stage.

COMMUNICATION NEEDS PROFILE

2.0 **Setting**

2.1 **Physical Setting: Spatial**

2.1.1 Location: Guayana, Venezuela

2.1.2 Place of study: IUP Guayana, degree-awarding polytechnic university

2.1.3 Study settings where English required:

Classroom/Seminar Room
Laboratory/Workshop
Library/Private Study

2.1.4 Other places: Possibly during industrial training periods

2.1.5 Extent of use: English normally required for small-group specialist studies and local use, occasionally extending to national use.

2.2 **Physical setting: Temporal**

2.2.1 Point of time: English required in class/laboratory/workshop when set texts are in English; in library and private study periods also.

2.2.2 *Duration:* Length of time spent on specialist studies requiring English varies according to semester reached and, to some extent, according to special/subject area

2.2.3 Frequency: English infrequently required in early stages of professional training English more and more frequently required in later stages, ie from semester 4/5 onwards.

POINTS OF PRINCIPLE AND PROCEDURE

COMMUNICATION NEEDS PROFILE

2.3 **Psychosocial Setting**(D/E)

Relevant characteristics of the psychosocial environment where English is required are:

2.3.1 Thinking

2.3.2 Quasi-Professional

2.3.3 Technologically fairly sophisticated

2.3.4 Fairly demanding

2.3.5 Hurried

2.3.6 Fairly informal

3.0 **Interaction**

3.1 Position: Student

3.2 Role-set: Authors/writers of books, manuals, papers, articles in English — from the United States, Britain and non-English-speaking countries in English translations.

POINTS OF PRINCIPLE AND PROCEDURE

D/E **Psychosocial Setting**

Selections here are made from an inventory of psychosocial environments supplied by the model. Obviously such factors have an effect on the participant's target communication as do the categories concerning participant's social relationships with his role set (see parameter 3). In both these areas of the model, selection involves, as Munby himself admits, decisions 'made according to **the subjective judgement of the user of the instrument'.** This is true of course — and inevitable; it certainly makes the application of this part of the instrument difficult, though not in my experience so difficult as to negate its usefulness.

3.3 Social Relationships: (D/E)

3.3.1 Learner to authority/instructor

3.3.2 Non-native to native

3.3.3 Professional to professional

3.3.4 Insider to insider

3.3.5 Adult to adult

4.0 **Instrumentality**

The target medium, mode and channel in which communicative competence is to be achieved is in the receptive mastery of print, written to be read.

5.0 **Dialect**

Contemporary standard American, British or other equivalent dialects (see 3.2 above)

6.0 **Target Level** (F)

(F) **Target Level**

There are several problems with the Target level parameter of the model, some of which are significant in any discussion of a needs analysis approach starting from participant and moving towards target syllabus. It is difficult for example, to see how even 'broad values' can be assigned to characteristics of target text on the basis of input from the previous parameters alone. Dimensions of size, complexity, range, delicacy, speed and flexibility can only really be judged from a study of the communication which participants will have to handle. This would seem to involve jumping ahead to data under later parameters of the model (eg communicative event, subject matter and communicative key).

(F) **Target Level (continued)**

There is no particular practical problem to this for the needs analyst, but it might indicate that the relationship between the four *a posteriori* parameters is cyclical rather than sequential; the user of the model will be revisiting and reviewing the second four parameters constantly as information under each of them is used to fill out and modify the profile. If the second four parameters are to be logically sequenced, the ordering below **left**, might seem more appropriate than the present one:

ie	0 Participant		0 Participant
	1 Purposive Domain		1 Purposive Domain
	2 Setting		2 Setting
	3 Interaction		3 Interaction
	4 Instrumentality	rather	4 Instrumentality
	5 Dialect	than	5 Dialect
	6 Communicative Event (including subject matter)		6 Target Level
	7 Communicative key		7 Communicative Event and subject matter
	8 Target Level		8 Communicative key

These are more significant questions than discussions on whether using a numerical system of values in both the Target Level (ie from 1 to 7) and Tolerance (ie from 1 to 5) grids is any less subjective than explanatory rubrics would be. The values here for each dimension of target level communication are only intended as a guide to the designer specifying a syllabus for a particular participant. They are not supposed to be of wider currency. The system used to quantify the conditions of tolerance (ie the latitude conventionally allowed to the participant by those with whom he communicates in the settings, role-sets and activities specified by the model) is a useful guard against setting unnecessarily high target levels.

Dimension

The level of text in English which participants must be trained for may be characterised in terms of the following dimensions:

Size:	ie The length of typical target texts
Complexity:	ie How straightforward or otherwise the grammatical structure, (eg the amount of embedding etc), discourse coherence (eg logical connectors) is; how much redundancy is typical
Range:	ie The number of different forms, micro-functions (see Part 2) and micro-skills required for receptive mastery of typical written text
Delicacy:	ie The level of specificity and detail
Speed:	ie The speed with which participants are required to handle text
Flexibility:	ie The extent of the participant's need to handle communication unrelated to his field of study

Each of these dimensions is marked on a seven point scale of broad values,

from very low/very small to very high/very large.

Scale	Value	Scale	Value
1 =	Very low/Very small	5 =	Fairly high/Fairly large
2 =	Very low/Very small	6 =	High/Large
3 =	Fairly low/Small	7 =	Very high/Very large
4 =	Middling		

Target Level Guide

Dimensions	Medium Written Receptive
Size of text	2/6 (i)
Complexity	5
Range (of forms micro-functions, micro-skills)	5
Delicacy (of detail)	6
Speed	3/5 (ii)
Flexibility	1

Note (i): The value **2** refers to short texts such as specialist articles and papers in English; the value **6** refers to long reference books.

Note (ii): Participants' required reading speed will be lower (eg value **3**) in private study than in laboratory or classroom, where information from written English texts is required more immediately (eg value **5**).

6.2 **Conditions**

Although a participant may need to handle texts with fairly high levels of complexity, delicacy etc (see 6.1), his communicative situation may or may not allow a high tolerance-level of opportunity to re-read, seek clarification etc. Such tolerance factors need to be taken into consideration in the statement of target level and, therefore, in the specification of syllabus content (see Part 2). There appear to be four such conditions, viz

Tolerance of Linguistic Error

ie The importance of accurate understanding of explicitly stated information

Tolerance of Stylistic Failure

ie The importance of seeing and understanding stylistic features

Tolerance of Reference

ie The opportunity of seeking clarification from reference books or instructors

Tolerance of Repetition

ie The opportunity of seeking clarification through re-reading

(F) To mark these conditions a five-point scale is used, giving broad values from very high to very low tolerance.

Scale		Value
1	=	Very low
2	=	Fairly low
3	=	Middling
4	=	Fairly high
5	=	High

Tolerance of:	Medium Written Receptive
Linguistic error	3
Stylistic Failure	4
Reference to dictionary	2/4 (iii)
Re-reading	4

Note (iii): There will be only a fairly low tolerance (**2**) of reference to a dictionary during laboratory/classroom use of English. In library and private study however, there will be a higher tolerance (**4**).

COMMUNICATION NEEDS PROFILE

7.0 Communicative Events in English(G)

7.1 Main Event

Engineering students studying reference materials ie standard textbooks, supplementary books, manuals, professional papers and articles in English in library, private study, classroom or laboratory.

POINTS OF PRINCIPLE AND PROCEDURE

(G) Communicative Events in English

One finds it quite difficult to establish criteria for the differentiation between communicative events and communicative activities but as long as the **activities** identified as appropriate for P are of a kind for which language skills may be selected, this crucial step in the use of the instrument will serve its purpose. Munby compares his communicative activity to Trim's 'language activity', Strevens 'communicative purpose' and Bung's 'operation'[3]?

---

[3]Trim J L M *Draft Outline of a European Unit[Credit System* in *Systems Development in Adult Language Learning* Strasbourg COE 1973.
Strevens P *New Orientations in the Teaching of English* OUP 1977.
Bung K *The Foreign Language needs of Waiters and Hotel Staff* CCC/EES 16 COE Strasbourg 1973

COMMUNICATION NEEDS PROFILE

Communicative Activities

7.1.1 Reading intensively for all the information in a text.

7.1.2 Reading for specific information to carry out an assignment.

7.1.3 Reading to find the main information in an English text; note-taking and writing up notes in Spanish.

7.1.4 Reading to find out the writer's position on a particular issue.

7.2 **Other Event**

Engineering students reading the current literature (new books, periodicals etc) in own discipline and related fields in English, in library or in private study.

Communicative Activities

7.2.1 Reading to keep abreast with latest developments in the relevant field.

7.2.2 Reading to assess the desirability of information required, but where the source is not known.

8.0 **Subject Matter**

The quantity and depth of competence in English increases as students progress through their professional courses. Purpose-specific English programmes must be designed to give learners access to subject matter in English in the following areas.

POINTS OF PRINCIPLE AND PROCEDURE

COMMUNICATION NEEDS PROFILE

POINTS OF PRINCIPLE AND PROCEDURE

8.1 **Semesters 1 to 3**

Mathematics, chemistry, physics, descriptive geometry, basic mechanics, descriptive drawing,basic technology.

8.2 **Semesters 4 to 10**

8.2.1 **Mechanics**

Thermodynamics and heat transfer; machine drawing; electricity and magnetism; materials resistance; fluid mechanics; metrology; machine manufacture technology; electronics.

Hydraulic mechanics, industrial electrotechnics; *machine elements; thermal machines and plants;* **industrial engineering;** automatic control and regulation; theory of tools and cutting; the design and technical processes of machinery.
Machine-tools and devices.
Industrial lifting and transport machinery technology; industrial equipment maintenance technology; refrigeration and air-conditioning.

8.2.2 **Metallurgy**

Thermodynamics and heat transfer; machine drawing; electricity and magnetism; chemical analysis. Physical chemistry; materials resistance; electrotechnics; metallurgical processes; metallurgy physics.

Fluid mechanics; extraction metallurgy; refractory materials; heat treatment;
industrial engineering; siderurgy.
Casting; mechanical metallurgy; mechanical technology; metallurgical furnaces.

8.2.3 **Electrical Engineering**

Electrical circuits; material mechanics
Programming. **machine drawing**
Electrometry; electronics; thermodynamics and thermal machines technology
Electrical machinery; fluid mechanics
Industrial engineering
Electrical systems; control systems; illumination
Computer Science
Electrical maintenance

9.0 **Communicative Key**(H)

(H) **Communicative Key**

Selections to mark the characteristic tones of the target communication are made from what is perhaps the most exhaustive of the model's data banks. Munby's attitudinal tone index consists of a 'potentially finite set of continua', labelled with two super-ordinates each dominating a set of hyponyms eg

formal-informal	FORMAL	INFORMAL
	ceremonious, punctillious	unceremonious
	correct, detached, stiff	etc
	conventional	

This highly detailed and comprehensive index might seem a case of overkill if it is there to handle 'the tone, manner and spirit in which an act is done'.(4) But it is there for more than that. The **tones** in the index are required later as essential parts of Munby's units of meaning — which are used to **process language functions into actual language.**

(4) D Hymes: *'Models of the Interaction of Language and Social Life'* in *'Directions in Sociolinguistics'* Holt, Rinehart 1972.

The tone or spirit of the English text to which students will need access may be broadly characterised as follows.

Activities
All, especially 7.1.4 and 7.2.2

formal	—	informal
authoritative	—	non-authoritative
certain	—	uncertain
assenting	—	dissenting
approving	—	disapproving
discriminating	—	undiscriminating
disinterested	—	biased
inducive	—	dissuasive
cautious	—	incautious

in his TES review of John Munby's book[5] *Chris Brumfit* writes: 'Not everyone will feel willing to use such a detailed instrument for course design. . .'. The Venezuelan profile above, however, is a reminder that where target needs are reasonably predictable and specific, the actual output of the instrument is manageable, revealing, and a useful first step.

---

(5) *'Language, Syllabus and the World'*, TES 11,8,78

COMMUNICATION NEEDS PROFILE

The second step in the Venezuelan case study is also included in this paper. It represents a target syllabus specifying the **micro-skills** requiring mastery to enable P to communicate effectively in the activities already profiled. It will be noted that this particular specification is slightly unorthodox in that it adds **'implementational comment'** ie some guidance and examples for the designers and trainers on the spot in how to set about converting target syllabus into actual programmes. Fuller discussion of the whole conversion process appears below.

Again discussion of the theory and practice of target syllabus appears in boxes inserted in the syllabus specification itself.

POINTS OF PRINCIPLE AND PROCEDURE

SPECIFICATION OF SYLLABUS CONTENT and Recommendations for Materials Production for the Proposed Introduction to Technical English Programme — (ITEP) and the Scientific and Technical English Reading Programme — (STERP)

0. Introduction

Proposed syllabus content is expressed here in terms of the **micro-skills** and **micro-functions** required by students to carry out the communicative activities involving English as identified in Annex 1, Section 7. The specification is for the materials producer/selector and should ensure that materials are appropriate in terms of subject area, level and skills coverage to the learners' real communication needs. (J)

POINTS OF PRINCIPLE AND PROCEDURE

(J) Target Communication

It is a fundamental claim of John Munby's model that the second stage of the model produces a specification of the participant's target communicative competence, whether the designer takes the micro-skill route (as here) or the meaning processor and linguistic encoder route (see Figure 1). An alternative and apparently more direct way of describing target communication is to (6,7) record it through an investigation of the actual work or study context concerned.

---

[6] For example: in Jupp and Hodlin *'Industrial English'* Heinemann 1975

[7] Candlin, Bruton, Leather *'Doctor-Patient Communication Skills'* (Chelmsford Medical Recording Service 1976.
Sinclair, Forsythe, Coulthard and Ashby *'The English used by teachers and pupils'* Birmingham University 1972

SPECIFICATION OF SYLLABUS CONTENT

1. **Activity 1** (see 7.1 above)
   Reading intensively for all the information in a text

1.1 **Micro-Skill:** Deducing the meaning and use of unfamiliar lexical items through:

1.1.1. understanding word formation, especially:

roots/stems

derivation[1]

compounding[S]

POINTS OF PRINCIPLE AND PROCEDURE

(J) **Target Communication (continued)**

Perhaps the implication in **Communicative Course Design** is that there is some kind of conflict between the approach starting from stereotype participant and 'processing' forward to target communication and an approach starting from descriptions of actual communication. In fact, Munby is probably merely pointing out that such descriptions are still scarce and in any case can only represent a sample of the target rather than the skills or functions that require training to enable participants to handle it. The value of relevant data is acknowledged: 'Recourse is had then to any available stylistic information . . . to see if there is any objective information on distinctive features, rules of use, co-occurrences and distributional characteristics, which relate directly or indirectly wholly or partly to the micro-functions and language skills under consideration'. (ibid p.). Each specified micro-skill is followed by **implementational comment** which attempts to add an operational and/or methodological perspective. Items particularly appropriate for the ITEP level are marked[1], those more appropriate for STERP are marked[S].

SPECIFICATION OF SYLLABUS CONTENT

POINTS OF PRINCIPLE AND PROCEDURE

1.1.2 contextual clues, especially:

lexical field

collocation

relations of synonymy, hyponymys, cause, contrase

Implementational Comment

The focus even at the introductory stage must be on reading to understand technical text. Students must be trained systematically to deduce meaning and use of unfamiliar words through a variety of practice activities for mastery of the micro-skills in 1.1.1 for example:

the 'grouping' of words with common roots/stems the extension of words into word families the matching of elements in the compounds multi-choice discussion items (in Spanish or English translation)

Micro-skill 1.1.2 should be practised at suprasentenial level as well as within sentences to train learners in educated guessing of the meaning or use of particular words from contextual clues. Obviously the more familiar and relevant the contexts are to students' concurrent study areas, the better. Techniques for training may include:

open-ended or multi-choice questioning

matching words related through synonymy, collocation, lexical field, hyponymy or contrast;

completion of sentences where the context involves the use of the target word because of relations of synonymy, hyponymy, cause, contrast, etc, eg **'lead is a (heavy) metal but aluminium is light'**;

the identification and discussion of contextual clues; translation.

1.2 **Micro-Skill:** Understanding explicitly stated information.

Implementational Comment

This is obviously a skill which involves operating at a less delicate level than other micro-skills and which has therefore a very wide applicability. The ability to perform this skill will obviously be dependant on mastery of other less broad micro-skills (for example 1.1 above). (k)

(K) **Refinement of Taxonomy of Language Skills**

There is no doubt that the taxonomy of language skills needs refinement re-categorisation. In the article quoted from already, Chris Brumfit says: 'Certainly the taxonomy . . . fails to confront fully the relationships between the various micro-skills listed, which could provide serious difficulties in the translation of the listing into teaching strategies'. The implementation comment in this case study is only part of the answer. Some interesting work re-organising the list has been done in Iran(8). But the relationship between 'micro-skills' and the teaching/-learning process needs considerable further investigation.

(8) *A Hierarchial Ordering of Munby's Micro-skills for Reading'* (British Council Direct Teaching Operation, Iran 1978

SPECIFICATION OF SYLLABUS CONTENT

It is vital that course designers build in systematic and varied techniques for developing competence in understanding written text in English, for example:

open-ended questions of all types (**all** 'why-' questions and also some longer discussions of meaning, perhaps using group-work);

multiple choice;

true/false;

sentence/passage completion;

re-phrasing;

fact sheet completion (listing in Spanish the facts in the passage);

translation

It should be remembered that these techniques refer in this context to **teaching** rather than testing. (L).

POINTS OF PRINCIPLE AND PROCEDURE

(L) **Learner-Centred Teaching Strategies**

Much of the training of learners in this area will involve helping them to develop their **own** strategies for getting what they need (or want) out of a text. Since this probably depends quite a lot on what learners bring **to** the text, on how they interact with it, some of the teaching/learning techniques mentioned for this skill will focus on what happens **before** the learner actually starts to interpret the text itself and what is happening during his interpretation

SPECIFICATION OF SYLLABUS CONTENT

1.3 **Micro-Skill:** Understanding conceptual meaning, especially: (M)

POINTS OF PRINCIPLE AND PROCEDURE

(L) **Learner-Centred Teaching Strategies (continued)**

Learners have been asked to read first then to practise by answering questions. This is probably not very helpful in the development of the strategies involved in what Henry Widdowson describes as the negotiation of meaning from text.

(M) **Conceptual Meaning**

The inclusion in the needs profile above, of details of the technical subject matter which learners will need English to handle and the specification here of various aspects of scientific and technical text do **not** necessarily mean that learners will be trained only through texts which are about their specialist subject. In fact, if the emphasis in the pedagogical syllabus is on process rather than, or as well as, product, there may be cases where the use of subject matter from the learner's specialist field will actually **hinder** the development of a particular skill or strategy. If we want, for example, to help a learner develop his strategies for understanding implicit meaning, it may be difficult, if the contexts used to help him do so are already familiar to him. Whether the texts used to train metallurgists for communicative activities that they need to carry on in English should be 'metallurgical' or not will thus depend on what particular skills are being trained. For some skills or strategies it will be more appropriate if the subject matter is **not** about the learner's special field. A needs analysis approach to course design does not, therefore, necessarily lead to pedagogical materials that are narrowly special subject

SPECIFICATION OF SYLLABUS CONTENT

1.3.1 Identification and description of objects, substances, materials through the use of singular and plural[!];

numerals[!];
group nouns[!];
unit, species, measure nouns;
definiteness and indefiniteness;
identifying words such as pronouns, adjectives, demonstratives; 'be' and 'have' relations

1.3.2 Quantity and amount, especially basic quantifiers on the 'all/every' 'all/none' continuum (Leech and Svartvik paragraph 67) (N)

1.3.3 Comparison and degree, including basic 'scale' words, comparative, superlative and equalitive

POINTS OF PRINCIPLE AND PROCEDURE

(M) **Conceptual Meaning (continued)**
oriented. It does not necessarily imply a goal- rather than process-oriented methodology. Discussions on **how** the learner is helped to achieve the required communicative competence are taken during the vital stages converting target syllabus into pedagogy.

(N) **Notional and Functional Items**

References throughout the syllabus specification are to Leech and Svartvik *A Communicative Grammar of English* (Longman 1975). This book is considered the most suitable source of more detailed treatments of notional and functional items selected from Munby's *taxonomy of language micro-skills*.

SPECIFICATION OF SYLLABUS CONTENT

1.3.4 Time[1], especially:

present time eg present simple forms to show state, single event and characteristic (L+S 106 — 108);

past time to show state up to present, indefinite event, characteristic (L+S 113);

future time expressed through 'neutral' **will**, simple present (L+S, 129, 133);

The tendency of scientific and technical English text to adopt a non-personalised tone (and the high occurrence in Spanish text of reflexivisation where English uses passive and other non-personalised forms) make it important to give receptive mastery of passive forms early on;

basic time expressions for point in time, duration, frequency (see L+S 140 to 160)[1] and less common indicators of time[s].

1.3.5 Location and direction, especially prepositions (see L+S 161 to 191).

1.3.6 Means, result, purpose, reason, condition, concession.

POINTS OF PRINCIPLE AND PROCEDURE

Implementational Comment

The majority of these conceptual items are handled in the present programme, which is based on a gramatically sequenced syllabus and uses the following sub-unit format:

brief grammatical explanation (in Spanish);

examples (in English);

pattern practice exercises at sentence level using translation and completion techniques;

short key-structure-oriented passage

It is felt that **two** main changes of emphasis should be made in materials that might be designed for use in programmes such as ITEP and STERP.

1. That the required target macro-activity of reading should dominate the materials more strongly and that less should be demanded of learners in the way of written productive English — even if such practice is regarded as a useful stage on the way towards reading competence. (F)

(F) **Reading as a Target Macro-Activity**

The course designer must of course take account of the fact that:

there is no one-to-one relationship between what is taught and what is learnt.

SPECIFICATION OF SYLLABUS CONTENT

Implementational Comment (continued)

2 That emphasis should move from form to function, a move that would probably result in a syllabus sequenced rather more **semantically** than it is at present.

The likely effect of these factors on an ITEP or STERP unit might be as follows:

1 that the **reading text** (on a variety of scientific or technical topics relevant to students' concurrent professional studies) would be the point of departure for training learners in the required items of conceptual meaning.

2 that the main conceptual area on which the unit is focused would cover a **meaning-related group of items in context** rather than a structurally-related set at sentence level
eg
a unit focused on 'Identification' and handling for instance 'be' and 'have' relationships, definiteness and indefiniteness, some demonstratives and singulars and plurals.

Micro-skill training that might focus on the concepts of identification examplified in the text, which at ITEP level would probably be 'semi-authentic' and in STERP could well approach full authenticity, and be characterised by higher levels of size, complexity, range delicacy; (see Part 1, section 6)

POINTS OF PRINCIPLE AND PROCEDURE

(P) **Reading as a Target Macro-Activity (continued)**

The dominance of, say, reading in a participant's target communicative activities does not mean that the programme preparing him for such activities will only contain practice in reading; vital psycholinguistic, pedagogical or other factors about the learner and his learning situation will almost certainly result in a broader training programme than that.

SPECIFICATION OF SYLLABUS CONTENT

Implementational Comment (continued)

3 that the number of exponents of each conceptual meaning handled in one unit would nevertheless be limited to avoid overloading.

4 that such a semantic syllabus would have designed into it a **cyclical sequencing** so that concepts introduced in an earlier unit could be re-handled and expanded in later units. The present structural syllabus tends to adopt a 'once-only' approach.

1.4 **Micro-Skill:** Understanding the communicative value of a sentence/piece of text (Q):

1.4.1 with explicit indicators for the main categories of micro-function, especially

(nil) certainty, probability, possibility

grade[I], assess[S], estimate[S]

wish, plan

advocate, direct

stage, refute, (dis) prove[I], assert, emphasise, claim[S]

POINTS OF PRINCIPLE AND PROCEDURE

(Q) It will be noticed that a target syllabus specified in terms of **micro-skills** (see Route 1 in Figure 1 above) covers appropriate 'micro-functions' as elements of certain skills as in the case of micro-skill 1.4 in this syllabus.

corroborate, support, contradict[S]

proposition, hypothesis[S], presupposition; substantiation

justification[S], proof, assumption[S];

conclusion, generalisation;

demonstration, explanation

classification, definition, exemplification

1.4.2[S] without explicit indicators
eg a statement that is in fact a warning:
'Handles protect hands'

IMPLEMENTATION COMMENT

The concern here is with various exponents of particular communicative functions in English. Probability, for example, may be variously expressed in typical technical text, viz:

The probability of metal fatigue increases with exposure and use. A fourth form of gas turbine **will probably** be produced in the near future. The by-pass engine **should** prove a successful compromise between turbojet and ducted fan.

ITEP and STERP should attempt to expose learners to as many of the specified micro-functions as possible through the texts selected **and** the training activities used in connection with them. The categories of micro-function in 1.4 should **not** be **forced** into text. They are specified as being typical of the subject

Implementational Comment (continued)

matter and level of text for ITEP and STERP and as such should occur (and be handled) as a result of normal text selection.

The mastery aimed at is again receptive rather than productive and may be trained through such techniques as:

open-ended questions on the actual communicative function of sentences or long pieces of text

eg (in Spanish or in English)

Q: What is the communicative value/function/force of X?

A: It shows certainty/It is a definition/It is a warning.[S]

matching;

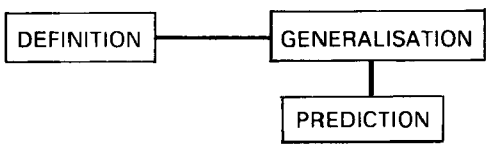
transformation (from one way of communicating the micro-function to another)

completion of sentences or longer stretches of text;

identification of a particular category of communicative function;

completion of diagrammatic representations of text structure

eg



SPECIFICATION OF SYLLABUS CONTENT

1.5 **Micro-Skill**: Understanding relations within the sentence, especially:

1.5.1 pre-modification, post-modification, for example: nouns modified by adjectives, participles, and particularly, other nouns
eg power station, field magnet system, telephone network development

(see L+S 731 — 738)

and, for post-modification, particularly relative equivalents

(see L+S 719 (A, B, C[I], D, EF, G[S]); 720[S], 721, 721[I]; 722—730[S]).

1.5.2 modal auxiliaries, especially where they express relationships of possibility (eg can, may, could, might[S]), capability (can/able), certainty or logical necessity (must); probability (should; can[S])

1.5.3 intra-sentential connectors, especially the most common linking constructions of coordination, subordination and sentence adverbials
eg and, or, but[I]; either . . . or, neither . . . nor, both . . . and, then; where, when, if, unless; before, after; because, as, since; however . . . yet . . . Then, therefore . . . ; moreover . . .[S], In fact . . .[S], Theoretically, . . . , etc

1.5.4 complex embedding[S]

1.5.5 focus postponement[S]

1.5.5 eg That a wrought iron bar heated to bright red will crack **is unlikely**.

POINTS OF PRINCIPLE AND PROCEDURE

Implementational Comment

Examples of 1.5.1, 1.5.3, 1.5.4 and 1.5.5 occur typically in scientific and technical text and should not, except in the case of certain of those features which are not specified for ITEP, be 'simplified out' of such texts (as they often are in standard ESP coursebooks).

Again, **receptive** mastery of such relations is the aim.

Training techniques for these sub-skills may include:

identification and explanation of their communicative value (in Spanish), multi-choice and/or open-ended;

matching (of 'fitting' parts of sentences or sentence component[s]);

transformation (including contraction eg 'materials which are used in engineering' 'engineering materials')

collocation;

sentence completion ('free' or with given options);

sentence combination;

translation

Some **overlap** will be noticed between items specified under this micro-skill (1.5) and other sub-skills; 1.5.2 (modal auxiliaries), for example, overlaps some of the items specified in 1.4 (eg probability, possibility); 1.5.3 (intra-sentenial connectors) overlaps items 1.3, especially 1.3.6 (means, result, purpose, reason, condition, concession as well as certain of the items in 1.4).

Implementational Comment (continued)

'If in its subordinating **sentence structure** role (1.5.3), for example, may express the **concept** of condition (1.3.6) in a **hypothesis** (1.4.9)

eg 'a mixture of air and water at the rate of 1600 to 1 will become a mixture of air and steam in equal parts if it is heated to 100°C.'

The pedagogical implication of this kind of overlap in syllabus specification is not that a particular item should be learnt three times in three different ways, but rather that all relevant dimensions of specified items should be handled.

1.6 **Micro-Skill:** Understanding relations between parts of a text through **lexical** cohesion devices, especially

1.6.1 synonymy
1.6.2 hyponymy
1.6.3 antithesis
1.6.4 pro-forms

Implementational Comment

The relations covered by these sub-categories are **above** sentence level and are investigated in detail by Halliday and Hasan[8]

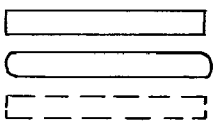
---

8 *'Cohesion in English'* (Halliday and Hasan, Longman 1976) is another assumed reference source.

Implementational Comment (continued

The following passage (from *'English in Workshop Practice'* OUP) is used here to illustrate the categories specified for 1.6:

A black mild steel bar of particular dimension has to be drawn down to square taper using special tools. Throughout the operation performed using an anvil, tongs and ball-pein hammer 6.2, the end which is being forged must be kept a bright red heat. The procedure is as follows. The circular bar is gripped with the tongs, the face is forged flat and to a short taper. The component 6.4 is rotated through 180° and the opposite 6.3 face is forged flat and to short taper. The work 6.4 is turned through 90° and the above process 6.1 is repeated.

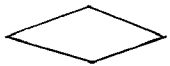


= pro-form relation

= hyponymous relation

= synonymous relation

Implementational Comment (continued)

 = relation of antithesis

Students should be trained to look for and discuss the communicative value of such discourse relations, which are an important element of intensive reading competence.

Possible training activities:

Explicit discussion in Spanish of the relations concerned; matching; marking relations in the text (see above).

1.7 **Micro-Skill**: Understanding relations between parts of a text through **grammatical** cohesion devices such as:

1.7.1 reference
1.7.2 substitution (L+S 390-409)
1.7.3 comparision
1.7.4 time relaters
1.7.5 common[l] and less common[s] logical connectors.

Implementational Comment

As in micro-skill 1.6, we are here dealing with discourse level items for which the Halliday and Hasan book is a useful reference source. Examples of the relations concerned occur in the following text: from *A Technical Reader for Advanced Students* (Macmillan).

SPECIFICATION OF SYLLABUS CONTENT

Implementational Comment (continued)

Tower cranes have certain advantages / / compared with / / the power-driven hoist.

This is by reason of their height, long reach and mobility. Firstly loads may be transferred in one operation from delivery vehicle practically to their destination. Secondly, the size of the handling team is reduced and its composition is not appreciably affected by the type of load being moved.

/ / . . . . . = relation of comparison

= reference

= logical connection

= substitution

Techniques similar to those suggested for 1.6 could be used to train these sub-skills.

POINTS OF PRINCIPLE AND PROCEDURE

SPECIFICATION OF SYLLABUS CONTENT

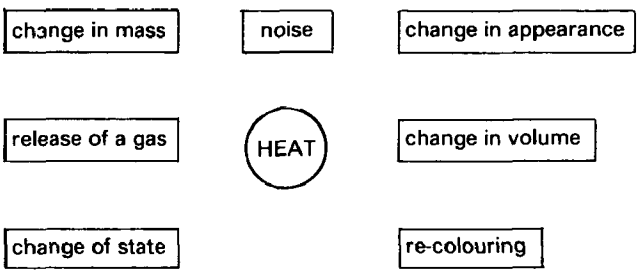
1.8 **Micro-Skill:** Transcoding information presented in diagrammatic display involving:

1.8.1 interpretation of diagrams/tables/graphs (in English), in writing (in Spanish).

Implementational Comment

Examples of transcoding:

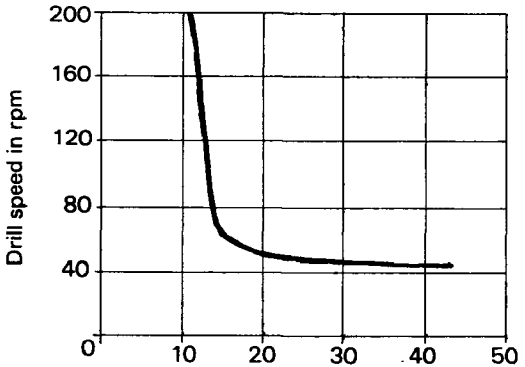
The Effect of Heat



Escriba un parrafo en español sobre los efectos del calor segun se indica en el diagrama anterior.
(From *'Nucleus;* (Longman)).

POINTS OF PRINCIPLE AND PROCEDURE

Implementational Comment (continued)



Usando el grafico anterior, de las velocidades recomèndadas para taladros de los siguientes diametros:

1	20 mm	4	12.5 mm
2	25 mm	5	30 mm
3	50 mm	6	15 mm

(From *English in Workshop Practice'* OUP)

1.9s **Micro-Skill**: Understanding information in a text not explicitly stated, through

1.9.1 making inferences

Implementational Comment

This is a more sophisticated micro-skill and should, therefore, probably be introduced at the STERP rather than the ITEP level.

The most obvious training technique will be open-ended or multi-choice questioning followed by discussion in Spanish on the implications of a text or a part of a text.

2. **For Activity 7.1.2**

Reading for specific information to carry out an assignment

2.1s **Micro-Skill**: scanning to locate specifically required information on

2.1.1 more than one point
2.1.2 a whole topic

Implementational Comment

Obviously, once the required information or anything relevant to it has been located, many of the skills specified for Activity 7.1.1 (above) will also be required.

Possible training techniques for the scanning skill are:

the assignment of specific information to search for (followed by discussion); the identification of the main topic areas and sub-topics in a text.

2.2 **Micro-Skill:** Recognising indicators in a text for:

2.2.1 introducing an idea
2.2.2 concluding an idea
2.2.3 transition to another idea.

Implementational Comment

This may be regarded as another sub-skill involved in scanning. Learners should be trained to recognise where the information they are searching for begins, where it ends, and where the transition to a new idea relevant or irrelevant to their search comes.

Common exponents of the functions of introducing, concluding and transition should be identified in sample texts and learners trained to use them as clues. Many such expressions will have been handled in the training of such micro-skills as 1.1.2; 1.3.4; 1.4.6; 1.4.1; 1.5.3; 1.6.3; 1.7.4; 1.7.5.

2.3[S] **Micro-Skill:** Selective extraction of relevant point from a text, involving

2.3.1 the coordination of related information;
2.3.2 the tabulation (in Spanish) of information for comparison or contrast

Implementational Comment

The two sub-skills have clear pedagogical implications: firstly that learners should be trained to handle **more than one text** in their search for required information on a topic, and then that they should be given practice in coordinting, comparing and contrasting the information selected by them as relevant to their

Implementational Comment (continued)

assignment. The second, productive task would be done in Spanish.

A sample task would be:

Ojee los tres parrafos siguientes y anote las ventajas y desventajas de los generatores de corriente directa.

3. **For Activity 7.1.3**

Reading to find the main information in an English text; note-taking and writing up notes in Spanish

3.1[S] **Micro-Skill**: Recognising indicators in discourse for

3.1.1 introducing an idea
3.1.2 reinforcing an argument
3.1.3 concluding an idea
3.1.4 emphasising a point

Implementational Comment

Most of these sub-skills have been specified for scanning (see 2.2 above). Similar techniques for training would be used except that the learners will be asked to identify the main points in texts rather than specifically described required information.

SPECIFICATION OF SYLLABUS CONTENT

3.2[S] **Micro-Skill:** Identifying the main or important information in a piece of text through

3.2.1 topic sentence in paragraphs of inductive or deductive organisation

Implementational Comment

Paragraphs making inductions from observations are common in technical text; eg

When a load of 30 KN is applied to a steel bar, it lengthens by 0.250mm. If the load is increased to 60 KN, the bar lengthens by 0.50mm.

These findings show that the increase in length is proportional to the increase in load.

The main information in this paragraph is the induction sentence underlined, which follows the two observations.

eg **Friction always opposes motion.** Thus, when we push a table across a rough floor a force is set up which opposes motion.

The main information in this paragraph is in the generalisation (underlined). The deduction gives an illustration of the generalisation.

Learners should be trained to distinguish the two different kinds of organisation as a means of extracting important information. Technique might include:

POINTS OF PRINCIPLE AND PROCEDURE

Implementational Comment (continued)

identification of key information by underlining, or in fact sheets;
diagrams of paragraph structure (see above);
Q + A or multiple choice + discussion

3.3 **Micro-Skill**: Distinguishing the main idea from supporting details by difference

3.3.1 primary from secondary significance
3.3.2 a process from its stages
3.3.3 statement from example
3.3.4 fact from opinion
3.3.5 a proposition from its argument.

Implementational Comment

The required sub-skills here are self explanatory. Training techniques would follow the pattern suggested for micro-skill 3.2 above.

3.4 **Micro-Skill**: Extracting salient points to summarise the underlying idea or point of the text.

Implementational Comment

Micro-skills 3.1 and 3.3 are training steps on the way towards 3.4. The important information extracted through their use (and through relevant micro-skills and functions specified for activities 7.1 and 7.2) should, in IUP ESP courses, lead to note-taking and summary work in Spanish done as if students were dealing with non subject-area text in Spanish.

4. For Activity 7.1.4
Reading to find out the writer's position on a particular issue

Note: This activity probably belongs to the third recommended level of ESP at the IUP, that is the **Access to specific texts in English programme (ASTIEP).**

Of particular relevance for this activity would be micro-skills 1.5, 1.6, 1.7, 1.9, 2.2, 3.2, 3.3 and 3.4.

Micro-skill 1.4 might be extended to include extra categories of communicative function such as:

conviction, conjecture, doubt, disbelief;
inclination, preference;
praise, approval, disapproval;
advice, warning;
denial, agreement, disagreement.

Attitudinal tones derived from the communicative key categories in section 9 above will also become crucial, especially:

subtle; detached, prejudiced; favourable, unfavourable; critical, deprecating; official; uncompromising; convincing, dogmatic, vague, sceptical, unconvincing; confirmatory, querying, affirmative, negative.

It is important to see this particular case study in its context. The use of an instrument such as John Munby's on a short-term course design consultancy is only a beginning. It served a useful purpose in this case in helping the trainers (and learners) on the spot to focus more sensitively and more appropriately on

communication needs and thereafter to design more interesting and suitable materials.[9] It did, therefore, prove practicable with this reasonably homogeneous group of learners. Some of its difficulties of interpretation and some of its possible negative affects have already been mentioned. One cannot disagree with Brumfit (ibid): 'To specify, however accurately, target behaviour, is not the same as to specify what needs to be taught (many aspects of behaviour may already be known or subsumed by other aspects, for example). This instrument, as Munby willingly admits, does not take into account any view of how language is learnt, while a teaching syllabus must make such a view central.' Such a view must certainly be central as has already been suggested, central in terms both of priority and perhaps, in terms of the sequence of course design events.

[9]A course based on this design and of sample materials prepared by the local teachers and myself now exists and is in successful pilot use. ie *A Scientific and Technical English Reading Programme,* Rivero and Fernandez, IUPEG 1978

A PROCESS APPROACH TO READING AT THE UNIVERSITY OF MEXICO

J Charles Alderson, University of Michigan, Ann Arbor, USA

Why, in so many language teaching operations throughout the world, are materials production operations set up? When more and more language teaching materials are being published it seems paradoxical that at the same time there has been a growth in projects which have been established with the express purpose of designing teaching materials for given situations. Yet it is probably this increase in commercially available materials which is responsible for the rise in 'home-made' materials. As more materials become available potential users become increasingly discriminating and more and more aware that increased variety is not the solution for their particular situation. In other words, materials design projects increase as teachers realize the inadequacy of published material to meet their own particular needs.

This description of commercially available materials as inadequate to needs makes at least two assumptions. It is assumed that the user knows what the students' needs really are, and that at least an informal evaluation of materials has taken place to establish their inadequacy to meet those identified needs.

The analysis of needs and the evaluation of materials are, in fact, essential elements in any materials design project, and both are incorporated into the framework for materials production which has been developed at the Research and Development Unit of the CELE, UNAM, Mexico. Like similar projects elsewhere, the materials design element of the R and D Unit's work in Mexico arose from dissatisfaction with what was already available on the market. Many students of the National Autonomous University have a formal requirement to pass a reading comprehension examination in a foreign language, usually English, in order to graduate: this was their formal need, yet no course was identified which could satisfy this need for Spanish-speaking students in faculties as different as Veterinary Medicine and Political Science, or Economics and Engineering. In particular, no course was found which would teach students the strategies necessary for comprehending texts in their specific discipline areas. The texts available either merely tested reading comprehension in general or specific areas, or taught general English structures and vocabulary rather than those areas of English necessary to cope with written texts.

The initial needs analysis that was carried out by the Unit proved what was already known: that students needed only to read English (the formal requirement was to pass a reading test) but subsequent, more thorough analysis attempted to discover to what extent students are actually

expected to read in the subject courses, how they are expected to read and whether they actually read even if expected to. An attempt was made to determine the use students made of their reading: whether they read many articles which have to be summarised (in Spanish) for presentation in a seminar, whether certain textbooks are read in detail for fact extraction and learning, whether students make detailed notes of facts, or evaluate critically as they read. One aim of this 'needs' analysis was to find out whether students are expected to do in English things they do not do in Spanish. Teaching a student to do something in English which he or she can already do in Spanish is a very different problem from teaching him or her something in English which he or she still cannot do in Spanish.

It is important when undertaking 'needs' analysis to bear in mind the distinctions that can be made amongst different types of needs: one can distinguish formal requirements (the 'need' to pass an exam, to read certain textbooks) from actual needs or obligations (what the student actually has to do with the language) and from hypothetical future needs (the 'need' to inform oneself and become a better professional in the future by reading in a foreign language), and one can also distinguish demands made by the institution (the 'need' for actual behaviour, for example, reading that one is expected but not required to do) from the wants of the students (the 'need' the student feels to read English, as distinct from what is required or expected) and his or her desires (the 'need' to learn to speak English in order to interact socially, or just to learn the language for pleasure, although the want or need may only be for reading). An adequate 'needs' analysis must take all these 'needs' into account and syllabus and materials design should be based on a judicious consideration of all of them. It has been found, for example, in more than one Mexican university situation that although there is no requirement for English, no obligation and no demand, the need and the want exist. Subject teachers in Wood Technology, for example, have reported that although they do not expect their students to read English, they would be much better professionals if they did. If the subject teachers felt that their students could read English, then they would actually begin to require such reading of them. This is a case where a need might actually cause a demand, and possibly a requirement.

Since the 'needs' analysis had made it clear that it was not necessary to teach the students basic or common core English, ie 'the language', but simply how to read independently in English, and since no available course appeared capable of doing this adequately, it was necessary to design specific materials. During the design stage, and after having designed the materials, it was clearly important to evaluate the materials to see if they were capable of meeting the students' 'needs'. This evaluation framework is described in Alderson and Williamson (1978): here it is merely stressed

that the evaluation element of materials production, although one of the most neglected areas of design, is arguably the most important.

The aim of the course — the 'need' — clearly conditions the teaching methodology, such that teaching of R and D Unit courses is usually in Spanish, with no English production required, expected, or even corrected if it occurs, since the goal is confined to getting the students to learn to read in English, and it is believed that the most efficient way of doing this is by using the mother tongue as much as possible. More importantly for materials design, however, is the fact that the aim of the course also determines the content. As already pointed out, the courses do not aim to teach the language, but to get students to read texts in English for their own specific purposes. Thus the problem for course designers is not so much to analyse the language of a given speciality (Architecture, Law and so on) in a classic EST fashion, but to predict the difficulties that students will have with texts in their subject. Although it may be true that passives are very frequent in legal English, unless it is known that students may misunderstand a text or sentence or phrase because they have not understood the passive — ie, they have not identified the agent, or misinterpreted the verb as an adjective, for example — exercises on the passive are not included in a course of Reading English for Law. To take a currently fashionable example, rhetorical structures are not included in the syllabus simply because they exist, but only if they are either seen to cause comprehension difficulty for Spanish-speaking students reading in English, or if knowing how to handle the particular rhetorical structure can help in the reading process. For instance, one may want to talk about the relationship between generalisastions and examples not because such a relationship is part of the structure of the language, but because the recognition of such a relationship can be used by the reader as part of his reading strategies. If he recognises that an example is about to come, and he has understood the generalisation preceding, then he can decide to skip the examples as being, for his purposes, redundant. If he has not understood the generalisation, then he can, by attempting to understand the examples, possibly arrive at an understanding of the generalisation, and then back-track in order to confirm his understanding. Alternatively, he may not understand the examples but, recognising that they are examples and understanding the generalisation, he may then arrive at some approximate idea of their meaning which, since they are examples, may be sufficient.

This, of course, requires a vast amount of research to determine which linguistic and rhetorical features have consequences for (mis)understanding so at present the main tool is intuition (see, however, Richard (1976) and Alderson and Richards (1977)). However, an attempt is being made to reinforce intuitions by one procedure. If it is felt that a particular

element/structure/organisation is crucial to comprehension, a comprehension question is written on the text, whose correct answer depends on understanding the structure in question. If the student answers the question incorrectly, one not only has empirical justification for inclusion of an exercise on that point in the course, but also evidence which can be presented to the student to show him why he must master that particular problem.

For example:

1 Text 'For the first time there were memos on the subject of the war in the bureaucracy. They were private memos and they were sent to the Council of Economic Advisers.'

Question: Se mandaron memoranda al Consejo de Asesores de Economía sobre el tema de la guerra. Falso/Verdadero.

To answer this question correctly it is essential to have understood the anaphoric references of the second sentence.

2 Text 'Standard tests were applied to inmates of prisons.'

Question: Según el Texto, ¿quién aplicó pruebas?

If students answer with 'inmates', they have not understood the relationship of the noun phrase to the verb. In fact, if they do not answer 'no sabemos', they have probably failed to realise that there is a deleted agent.

3 Text 'The number of cases of mental disorder admitted to state hospitals had decreased in the last year: in 1975, 5538 cases were admitted in contrast to 5900, 6300 and 6031 in 1972, 1970 and 1968, respectively.'

Question: En qué año se admitió el mayor número de casos desórdenes mentales?

Translation is also used as a device for testing understanding of certain structures to justify the inclusion of the structure in the exercises. For example, the following were used to test the understanding of noun-compound structures:

4 Culture-free tests = pruebas de cultura libre. True/false.

5 The complete process of green plant photosynethesis = el proceso completo de (la) fotosintesis de las plantas verdes. True/false

6 By bacteria-free stool filtrates = por bacterias libres del excremento filtradas. True/false.

To summarise, since the courses are aimed exclusively at reading comprehension one is forced to consider which aspects of language are relevant to achieving that main aim, and only those elements are incorporated into the teaching materials. One feature of the philosophy that underlies the courses, therefore, is that 'English' is not the goal.

Another important feature in this philosophy is the recognition of a distinction between product and process approaches to reading comprehension and a tendency to favour the latter rather than the former. The product approach is typified by the sort of reading course mentioned earlier, where what are called exercises to teach reading comprehension are in fact tests aimed at assessing whether comprehension has occurred. The typical form of such product courses is that students are shown a text and then asked questions — usually interestingly, in multiple-choice format — to check whether they have understood the text. These questions may or may not be accompanied by 'language work' using examples in the text which usually do not cause comprehension difficulties. Basically such courses purport to teach reading comprehension by giving students text and telling them to read it. If students learn to read with such a course the learning would appear to have taken place regardless of the drawbacks of the product approach, since the 'exercises' merely test for the presence or absence of comprehension. Students are not taught how to comprehend a text. This product approach is different from the process approach which (hopefully) characterises the materials produced in the R and D Unit. This latter approach assumes that a reading course should not teach what is typically tested in reading comprehension tests, but rather the strategies necessary to the process of reading which will then lead to the product. The focus of the process approach is on techniques which will help the student to deal independently with any text in his subject area, by giving him ways of approaching text.

One superficially important difference between the two approaches lies in the presentation of text and exercises. In the product approach, the text is normally presented to the student first, and then the teacher looks to see if comprehension has resulted. If it has not, ad hoc teaching points are developed. In the process approach, exercises are presented first, aimed at helping comprehension, not only of one particular text, but also of others. Moreover, in the process approach, the text may be presented several times in order to teach different strategies. Whereas the product approach tends to be text-bound and has no immediately obvious application to other texts, the process approach is related both to the existing text and to others. Typically, in a process approach, the exercises use sentences, words, phrases and concepts from the text that follows, and this hopefully facilitates their comprehension, and also acts as a kind of anticipatory exercise.

The process approach has another advantage, which is to contribute to the evaluation of the materials. With the product approach, if students failed to comprehend the text, the fault lies with the student: he is stupid or he did not read carefully. In the process approach, on the other hand, if, after doing the exercises that lead up to the text, the student does not understand the text, then probably either the teacher has not done his job, or the exercises offered do not help comprehension, or additional exercises are needed. This immediate feedback puts a great onus on the materials writer, but builds in teacher/writer cooperation in materials development.

Perhaps the best example of the difference between the process approach and the product approach is given by the two different ways of treating vocabulary. The product approach will do one of two things: either it will teach the meaning of individual words or, more commonly, it will simply test the students' understanding of a sample of words in a text, either by getting students to paraphrase words and phrases from the text, or by asking for appropriate synonyms and definitions. In the process approach adopted in the R and D Unit's materials, an attempt is made to give the students strategies for dealing with unknown words in a text. What this amounts to is giving the student the confidence to guess at unknown meanings by using information from the context. This in itself is nothing new, but what **is** new is the arranging of the context in such a way that it is possible for the student to learn how to use it. In addition nonsense words are used whose only meaning is that given by the context, or by the morphology of the word. Students are thus unable to look up the meaning of the word in the dictionary and have to use the context in the way the materials designer designed it to be used.

For example, if the unknown word is in a list, it is possible to guess its meaning from that of the members of the list by deciding what they have in common:

7 In the General Strike everything stopped: there were no trains, **boggles**, buses, planes or even taxis.

8 Even among very primitive people there is sometimes found a chieftain, a group of elders, a council of priests, a **wurg** or a tribunal of some kind who in cases of doubt decide whether sanctions shall be applied.

It is also possible to use the anaphoric reference associated with an unknown word to guide one to a textual synonym which might help one to guess the meaning:

9 If you asked an average lawyer to explain our courts, the **nerk** would probably begin like this: Our **frugs** have 3 different functions. One **blurk** is

to determine the facts of a particular case. Determining the **quods** is the task of the lower courts. The second **blurk** and this is also the task of the **jingle** courts, is to decide which laws apply to the fact of that particular **durgle**.

Similarly, anaphora is used to refer to a section of text, rather than to individual words, thereby aiding the comprehension of 'summary' words:

10 It used to be believed that a person's intelligence was affected entirely by the environment in which he was brought up. This **phurgle** was particularly common among 'liberals' and great efforts were made to prove that heredity had no influence. The usual subjects of such **wandlebows** were identical twins (ie with the same genetic form) who were brought up in different environments. Unfortunately, the results of these **clotchbells** were not conclusive.

Frequently, words are actually defined in a text, so that if students can recognise a definition, they need not look up the word in a dictionary:

11 The purpose of the United Nations' Law of the Sea conference was to find a solution to the problems of regulating **fandangle**, that is, the use of the oceans by different countries. There has recently been a great increase in **murcation** (which could be defined as the extension of national claims to water which is distant from the coasts of that nation). The **derbality** (in other words, the sea which belongs to the state whose coast it touches) has been pushed out from 3 miles to 12 and, in some cases, to 200.

The essence of this procedure is to make students realise that exact dictionary definitions are usually unnecessary for the understanding of text, and thereby to reduce their reliance on a dictionary to looking up the very few absolutely essential words whose meaning cannot be adequately recovered from context.

Another example of the type of exercises developed for the process approach is that which deals with sentence complexity. Here no attempt is made to teach the students grammatical rules, nor to help them to produce grammatical utterances, but merely to help them to decompose the sentence into its constituent elements for efficient processing, since this is what, it is assumed, the process of reading includes. Traditional morphology exercises, which seemed to have served this purpose incidentally, are used in the Unit's courses with this specific aim in mind — to help students intuitively analyse sentences into constituents. One type of exercise aimed at this is the 'insert the word' type.

12 His [a] argument [b] is: capitalism [c] has reached the end of an era. (**main**)

13 The[a] post-war [b] expansion [c] has ended. (**phase**)

Another is the type where students are asked to add to simple declarative sentences, or to reduce complex sentences to simple sentences:

14 a They will strengthen cooperation.

b The Parties will strengthen cooperation.

c The Contracting Parties will strengthen their cooperation.

d The Contracting Parties will strengthen their cooperation for a purpose.

e The Contracting Parties will strengthen their cooperation for the purpose of fighting against pollution.

f The Contracting Parties will strengthen their cooperation for the purpose of fighting against the pollution of the Rhine.

g The Contracting Parties will strengthen their cooperation for the purpose of fighting against the pollution of the Rhine by chloride ions.

h The Contracting Parties will strengthen their cooperation for the purpose of fighting against the pollution of the Rhine by chloride ions on the basis of the provisions of this Convention.

i The Contracting Parties will strengthen their cooperation for the purpose of fighting against the pollution of the Rhine by chloride ions on the basis of the provisions of this Convention.

j The Contracting Parties will strengthen their cooperation for the purpose of fighting against the pollution of the Rhine by chloride ions on the basis, during an initial stage, of the provisions of this Convention.

Yet another type of exercise related to this is the sort where students are taught to identify 'irrelevant' elements in a sentence, to ignore them and to process the rest. This identification can be through the 'meaning' of the phrases, or, for example, by means of the punctuation (parentheses, commas or hyphens). In the following exercise, students have to erase the less important parts of the sentence:

15 The second kind, called upper courts or appeal courts, usually does little about the facts of cases. Petitioner, an Italian national who had entered the USA on a visitor's visa, was denied adjustment of status.

One way of checking whether the students have problems in this area is by means of comprehension questions on a sentence or text, based upon an incorrect constituent analysis. In the next example, if the student answers with b), he has misinterpreted 'called' as the main verb:

16 The second kind, called upper courts or appeal courts, usually does little about the facts of cases.

En la oración I del ejercicio anterior se afirma que la 2a. clase:

a) tiene poco que ver con los hechos.

b) llamó a las cortes altas.

These, then, are some of the characteristics of the process approach which underlies the language teaching materials being produced at the Research and Development Unit of the CELE, UNAM. This is an ongoing project: no dogmas are accepted and approaches are constantly being modified, depending upon the results of the feedback through the evaluation procedures. A variety of exercise types is being evolved to best suit the aims of the project and the needs of the student. No taxonomy of exercise types exists in the Unit, partly since this would require a coherent theory of language, language processing and language learning, which has not yet been developed. Nevertheless a variety of techniques are used with the basic aim of improving the process approach, and teaching the students new strategies for dealing with written text in English. Techniques like information transfer exercises, gap-filling based on both verbal and non-verbal informational input, translation, sentence-matching, and skimming, scanning and skinning exercises based upon deliberately blurred texts with the aim of focusing the students' attention on only one part of the text, are all used in the Unit's materials.

In summary, the general approach to the teaching of reading comprehension that characterize the materials produced in the Research and Development Unit is a process approach. The aim is to give the student strategies for dealing with new and unknown texts and language, rather than teaching him the language of his discipline. Although this approach implies a much greater knowledge about the process of reading and its interrelation with the student's cognitive structure, as well as the nature of the individual academic disciplines, than is currently available, work has had to go ahead on the production of materials for the Faculties

of Law, Economics, Architecture, Business Administration and Political and Social Science, and therefore a series of exercise types has been developed for incorporation into these courses. In reality, the process approach represents a goal towards which the Unit is working rather than a characterisation of the present materials, which obviously have had to be produced under practical constraints of time and available know-how. Much more research and experimental materials development is necessary before one can begin to be satisfied with the product of the process.

References

ALDERSON, J Charles and WILLIAMSON, M. (1978)
A Framework for the Evaluation of Teaching Materials, Report No 13 Research and Development Unit, CELE, UNAM, Mexico City. (mimeo) (1976).

RICHARD, S (1976)
A Study of the Predominant Reading Comprehension Difficulties as Demonstrated by Undergraduate Students at the Universidad Nactional Autónoma de México. Report No 7 Research and Development Unit, CELE, UNAM, Mexico City. (mimeo).

ALDERSON, J Charles and RICHARD, S. (1977)
Difficulties which Students Encounter when Reading Texts in English. Report No 8 Research and Development Unit, CELE, UNAM, Mexico City. (mimeo).

MATERIALS DEVELOPMENT: IN PROSPECT

Ted Rodgers, Curriculum Research & Development Group
University of Hawaii

This paper derives from an English Language curriculum development project being carried out in and by the State of Hawaii. The ultimate program aims to serve school age students from age five to seventeen, including both native speakers and non-speakers of English. The program is called the Hawaii English Program (HEP).

It is a large project, historically the largest in the field of language curriculum development, engaging, to date, twelve years of productive effort by a large crew of materials writers, media and evaluation specialists, and administrative and support staff.

The Hawaii English Project is state mandated and federally funded and has had as its basic goal the re-thinking and re-structuring of English language education for the almost 200,000 students in Hawaii's schools. Program materials are also used widely in the Pacific exclusively as an ESL program.

For professional groups visiting our project, we periodically undertake a kind of frantic *tour de force* in which we attempt to systematically recapitulate the significant activities of ten years of large-scale materials development in one day. The schedule for one such whirligig is reproduced below (Table 1). In lower energy periods we show the schedule to visitors and ask which kind of activity they are most interested in, directing them then to the in-house experts in that area. Without some such dialogue it is difficult to predict which aspects of program development might be of most interest, for example, to readers of this document series.

Lacking such guidance I have chosen to respond to four key questions which, implicitly or explicitly, appear to challenge most language materials developers with whom I talk or correspond. I conclude by overviewing the resultant program and providing sample materials descriptions.

TABLE 1

Development of a Language Arts Curriculum
Demonstration — Discussion

Hawaii Curriculum Center December 10 1975

9.00 - 9.15	Introduction to the Demonstration Dr Ted Rodgers (Curriculm Coordinator, HEP)
9.15 - 9.40	Models for Curriculum Development (The Big Picture) Dr Art King (Director, CRDG)
9.40 - 10.00	Brainstorming for a New Content Unit (The Little Picture) Planning Group
10.00 - 10.15	First Draft Considerations Chris Staab (Teacher/Planner)
10.15 - 10.45	First Classroom Testing Jim Harstad and class (Teacher/Planner)
10.45 -11.00	Evaluation Odette King (Evaluation Specialist)
1.00 - 11.15	Revisions from Testing Maida Bell (Planner)
11.15 - 11.30	Design Coordination Rob Robinson (Overall Designer)
11.30 - 12.00	Media Lynn Schoonejongen (Director, Media Shop)
12.00 - 1.00	Lunch
1.00 - 1.20	Politics and Funding Shiho Nunes (Former Project Manager, HEP)
1.20 - 1.40	Public Relations Bobby Keating (Dissemination Specialist)
1.40 - 2.00	Final Revisions and Teachers Manual Lynne Johnson (Planner)
2.00 - 2.20	Camera Ready Copy, Specifications, Production Frank White (Production Manager)
2.30 - 2.40	Teacher Training Shiho Nunes
2.40 - 3.00	Monitoring and Maintenance Grace Fujita (Director, HCC)
3.00 - 4.00	Materials Delivery and Use (Inspection of Classroom Materials) Staff

These questions might be summarized as follows:

Program Justification	How do you justify your program to your sponsors and potential users? What does it offer or intend to offer that scores of other programs, commercial and non-commercial, do not?
Design Model(s):	What design models a) are functionally helpful b) are not just textbook phantoms which fail to provide answers or to focus questions?
Program Content:	How do you decide what goes into a comprehensive language program? What constitutes a quality contemporary English language education?
Atomistic vs Holistic Approaches:	How do you resolve the incremental **vs** integrated, atomistic **vs** holistic, discrete-point **vs** language-rich environment, conflicting points of view in regards to language skill development?

1 Program Justification: Why a New Program?

The products of publicly-funded materials development projects compete with educational materials produced by private sector publishers and educational media companies. In order to justify our own efforts in the field and to justify public support of such efforts, we have chosen to direct our energies in materials design and use along paths which the publishing community has not chosen to blaze or to follow. For example, we have tried to give a regional (Asian-Pacific) flavor and meaning to our program which is largely missing from all US Mainland developed programs. We have also felt it imperative to support our materials set with a network of in-service and other front-up and back-up services. Again, publishers tend to shy away from educational programs for which such support services are required or recommended.

The program materials justify their usefulness as well as their uniqueness on the basis of several such features which we felt (and still feel) are largely absent from contemporary commercial materials. These features are synopsized below (Table 2).

A key element in programme acceptance* has been the 'planning services'

*Program materials have been adopted by 90% of the potential users. Program materials have been provided free of school charge for schools requesting program participation. Schools in return are required a) to commit to a total school program plan, b) to guarantee participation of all teachers and administrators in a week-long non-compensated summer in-service training, c) to use for instruction all materials requested, and d) to support maintenance and replacement of materials out of school funds.

feature described above. Each institution requesting participation in the planning services is asked to assemble and organize certain kinds of data regarding its present program and needs. Principally this involves completion and submission to the project director of a Present Program/Present Problems questionnaire by interesting institutions. The questionnaire and other available data are analyzed and a 'Materials Alternative' brief is prepared for the submitting institution. A personal presentation of this brief is made to the institutional staff and the alternatives for materials adoption and use are suggested. The institutional staff accepts, rejects, or re-formulates the recommendations and prepares, with the assistance of the project staff member, a 'program plan' reflecting the school staff's decisions. (This feature is discussed further in an article of mine in the previous ELT Document Series — *Teacher Training: In Progress*).

TABLE 2

Features of the Hawaii English Program (HEP)

Sequential Program	An innovative, sequential, integrated program in Language Arts for the students of Hawaii grades K-12.
Planning Services	Planning and consultation services to help schools adapt the HEP Materials to the particular programs, learning needs and teaching skills of individual schools.
Basic Skills	Continuous and concentrated attention to development of basic language skills in reading, writing, speaking, and listening.
Local Relevance	Materials, themes, and instructional organization to respond to needs and stimulate interests of students in Hawaii.
Special Needs Mainstreaming	Instructional materials and techniques to enable inclusion of students with special needs — the mildly handicapped, learning disabled, limited English speaking, as well as the gifted and talented — in regular classrooms.
Test-Evaluation-Revision of Materials	A development cycle requiring multiple test/revision trials for materials prior to their publication for installation. (Most commercial materials have no test-revision prior to publication.)

Pre- Post Installation Support	Support services to assist and advise schools before, during, and after initial program installation.
Teacher Training	University credit in-service training to prepare teachers to use HEP materials.
Evaluation	An evaluation program which examines and reports the instructional effectiveness of HEP materials.
Contemporary Content	Concentrated focus on contemporary communication modes and messages (eg, computer systems and the mass media) as well as on the more traditional reading and writing modes.

2 Design Models: What Guides the Design Progess?

Given a charge to develop a totally new English Language Curriculum for the State of Hawaii and given some very generalized considerations as to what its content and objectives should be and given a collection of academic and master teacher types committed to putting the new curriculum package together and given strong leadership, test sites and funding ... what happens next?

There is a theory of how curriculum development goes which suggests that first all program purposes need be stated; these purposes are then represented by a more specific set of goals, attainment of which will be tantamount to fulfilling the purposes. The goals are in turn broken down into other still more specific goals and so on. In the last round goals are specified as a discrete but very large set of behavioral objectives which collectively map into the goal set. For each behavioral objective one or more learning activities are then designed. These become the materials themselves. Finally some sort of test mechanism is specified which when applied tells whether a learner has achieved each behavioral objective as a result of participation in the learning activity or activities.

That's the way the textbook tells it. The model is one borrowed from systems engineering for military equipment. This may or may not be a useful style for building a supersonic bomber. But nobody appears to be able to design language education programs in the manner the model suggests.

At the other design plan extreme is the Perfect Little Finger Approach described by playwright Tom Stoppard.

> I half commit myself to some distant future date. I often talk to someone about it and suggest that in six months it will be done, so I set up a kind of deadline. But most of the intervening period disappears in a kind of anxious state of walking about. You cannot start until you know what you want to do, and you do not know what you want to do until you start. That is catch-23. Panic breaks that circle. Finally a certain force in the accumulated material begins to form a pattern. Most people think that you build a skeleton and then you know whether you are going to write a dog, a giraffe or whatever. What happens, in fact, is that you do a perfect little finger, and then you do four others, and then you write a wrist. You begin to get a sense of what kind of animal it might be.
>
> (Time, May 6, 1974)

Curriculum design in practice seems to incorporate some elements of both extremes mixed in ways that are largely unpredictable when one sets out to design, craft, test, revise, publish, and install a large-scale educational program.

The model by which our early discussions were directed is one that holds that curriculum design must be an inter-weaving of responses to three sets of considerations: Knowledge Considerations, Instructional Considerations, and Learner Considerations. Too often, it is held, educational design gets focused on just one of these considerations to the neglect of the others. For example, the early New Math or Transformational Grammar programs were criticized for being too academic and too little concerned with the realities of instructional strategies and learner interests and capabilities (Knowledge Considerations overshadowed Instructional and Learner Considerations). Programmed learning and language laboratory enthusiasts, as another case, assumed that any subject for any learner could be packaged according to a universal instructional format. Programmed Learning never justified the claims of the true believers (Instructional Considerations overshadowed Knowledge and Learner Considerations). The first round of 'Ethnically — oriented program assumed that acknowledgement and sometimes aggrandizement of 'culturally alienated' learners' backgrounds (eg through Dialect Readers) would be sufficient to encourage educational enthusiasm in heretofore school-alienated students. Again these claims went largely unrealized in practice (Learner Considerations overshadowed Knowledge and Instructional Considerations).

In our own early design work we tried to incorporate knowledge insights of academicians in the relevant language disciplines, instructional experience of successful classroom teachers, and learner considerations as assembled from extensive talks with — and observations of — students involved in learning both in and out of school.

The design frame is shown in graphic form as Figure 1.

Learner Considerations sets out the ages, grades, and developmental stages of the target group of learners. We note well any particular set social background characteristics, preconceptions, or world view. Are there societal expectations, perhaps conflicting sets of expectations, or even, perhaps, a vacuum of expectations?

Can the intended learners be profitably characterized by such terms as 'gifted', 'mentally retarded', 'potential drop-out', or other? Are entry educational achievement levels required and can they be reduced? Can the types of knowledge required by these learners be typified by depth, or coverage, or orientation, or skills? Further, are there any theories or principles of learning which are held to be particularly promising? And, are there presumed learner interests and expectancies which would influence the resultant educational design for the program? Other ideas coming from a consideration of learners are also pondered.

The **Knowledge Considerations** are defined broadly to include skills, appreciations, capacities, changed behaviors, and the like. If the knowledge is held to be disciplinary, what view of disciplined knowledge is taken? If it is multi-or inter-disciplinary, what model of this characterization is held? Is the knowledge 'liberal', 'humanistic', 'technical', or whatever? Each of these characterizations should be pushed to the level of relevant theory to mine the humanistic and educational clues inherent in the characterization.

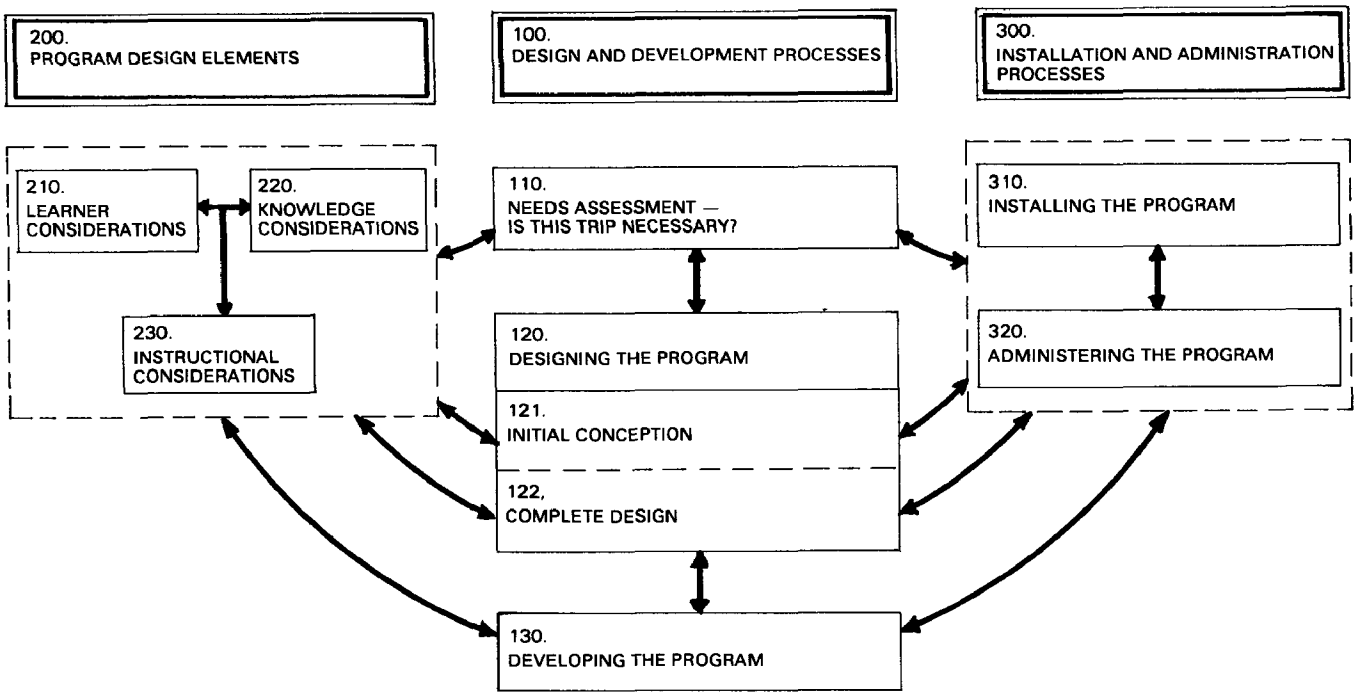
Among the **Instructional Considerations** are ideas of staff (teachers, paraprofessionals, peers, resource people, and the like), instructional strategies and techniques, materials and equipment types available, instructional environments, time and schedule techniques, and a plan for the passage of information about the progress of the program to learners, teachers, parents, and others interested.

The design phase should consider also the possibility for successful installation of the program (budget, staff, funds, schedule, and strategy; as well as the ultimate capacity to administer the program, including training, supervision, acquisition of mateials and equipment, staff assignment, space allocation, planning and budgeting, and program evaluation).

The curriculum design resulting from the amalgamation of the elements of the foregoing must have focus, plausibility, and a high potential for realizing the values held for the new program.

We have found this model and the questions subsumed within each element to be useful in organizing our thinking for curriculum work. A

FIGURE 1 **EDUCATIONAL PROGRAM PLANNING SCHEME**



score of successful projects in various curriculum areas have had their early design discussions focused by the question-set deriving from the model.

It should be acknowledged that the curriculum design does not spring full-bloom from the analytical process which the model directs. The interweaving of knowledge, instructional, and learner considerations into a curriculum is still more art than science. We do find, however, that the curriculum, so derived, is less likely to be flawed by crucial oversight.

3 Program Content: What Comprises a Comprehensive, Competent and Contemporary Program in English?

A number of 'claims' are made on English language education, on both mother tongue and second language programs. It may be safe to say that English language education has been asked to take on more continuously varying educational tasks than has any other area of the curriculum.

In the lifetime of our own project, changing curricular enthusiasms for discipline-based, content-integrated, affective and basic skill focused approaches to English education have each urged re-definition of the English curriculum. During the same period, second language teaching has seen a changing set of proposals for syllabus re-organization argued in the professional literature and supported by commercial texts. 'Translational', 'explanatory', 'structural', 'situational', 'notional', 'communicational' are among the labels given to these syllabus proposals and their support packages.* In what has become an almost constant state of flux, how does one define and defend the choice of content and approach made in any particular program, and can (and should) such choices allow for and, perhaps, anticipate changing emphases and priorities within the English program?

The discussion in this section turns largely around the definition of 'Knowledge Considerations' as previously defined.

Similarly, views regarding students (Learner Considerations) and views regarding appropriate methodologies (Instructional Considerations) change over time. A program or set of materials which is planned with a life-expectancy of 10-15 years (as in our own case) must be constructed to

---

* For fuller discussion see Moss, R.B. and T.S. Rodgers 'Does English for Special Purposes Imply a New Kind of Language Syllabus' in G.H. Wilson (ed.) *Curriculum Development and Syllabus Design for English Teaching.* SEAMEO Regional English Language Centre, Singapore, 1976, pp. 51 — 78.

withstand and/or accommodate winds of change whose strength and direction may be largely unknown during the early and critical design phase.

Our own choice was to attempt comprehensiveness in our initial design, realizing that elements within a comprehensive design would receive different degrees of attention and emphasis by different users at different times. At the same time we had to take a stand as to what knowledge we felt was most worth knowing (and say so) and as to those instructional strategies which would make that knowledge most accessible, interesting and productive for learners in our program.

Decisions regarding the content (Knowledge Considerations) of the program are summarized in Table 3.

The content areas are represented by the '7 A's'. Each of these represents a particular and legitimate claim on the English curriculum which we have chosen to recognize and support. That is, each of these represents a commitment to content in our curricular design.

I will comment briefly on each of these:

1 Abilities — Often called the Language Tool Skills and cited as reading, writing, listening and speaking. The focus here is on mechanics and usage, pronunciation, spelling, grammaticality, punctuation, etc. Correctness in language use is the learning goal. I have compared this to physical Education in that it seems to me that typical school physical education programs look on the body as a tool which must be trained for a variety of uses, somewhat as language is looked on as a tool which must be honed for use in a variety of tasks.

2 Art — Language is considered as a medium through which artistic expression is achieved. Like color, or stone, or tone, language is the raw material out of which art objects such as poems, novels, songs can be created.

3 Artifacts — One can study language for its own sake. As the 'hallmark of humanity', language has an equal claim to the physcial world as a subject for school study. To use the traditional terminology, language can be studied synchronically, as is chemistry, and can be studied diachronically, as is world history.

4 Analytics — A major claim of the transformational grammarians has been that language study can develop students' analytical, problem solving skills. As one linguist, S J Keyser, puts it, 'It is possible to look at grammar

as attempting to teach children how to make, critically examine, and reformulate hypotheses about language, using as evidence their own knowledge of English. In other words, grammar can be viewed as an opportunity for students to learn how to engage in rational inquiry ...

5 Acculturation — Language is an internal bond for the various social groups to which each individual belongs — the family, community, region, and country. Language study can be viewed as the central study from which an individual can examine each of his/her social/cultural relationships.

6 Affect — Each individual is identifiable by an idiolect. One's language is as unique as one's fingerprint. Study of one's own language (or languages) then becomes the center of the inquiry which seeks an answer to the question, 'Who Am I?'.

7 Agreement/Activation — How is language used to get things done — to motivate agreement? We know that there are those who have mastered the linguistic skills, in the sense of the first category in this set, and yet are ineffective communicators. Similarly, there are those for whom the dicta of good usage are a mystery, who wittingly or unwittingly murder the King's (Queen's) English and yet are effective political users of the language — they get things done. The focus here is on communicative competence.

Obviously, the above categories are not mutually exclusive — nor are they exhaustive. They do summarize neatly the claims on English language study we have chosen to accept as focus for our own program content and instructional processes.

A program that serves only an ESL or EFL audience would respond, I assume, to a more limited set of claims. There has always been a priority on the tool skills (#1) aspect of language learning. More recently the emphasis has shifted towards acquisition of communicative competence (#7). I assume as well that most second language programs will recognize, in some way, the relationship between the second language and the culture or cultures in which that language is used and the ways in which cultural features are reflected in aspects of language use (#5). Artifactual knowledge about the structure of a new language and how it got that way (#3) has also been highlighted in some second language approaches (viz cognitive code strategies). Some formally linguistic point of view underlies most methodological approaches to second language instruction and, hence, must be worked through from a design perspective, even if explicit instruction regarding language structure or history does not appear in materials produced for student use. Traditionally, English language programs have paid considerable attention to the appreciation of and

sometimes the production of literary English (#2). However, this literary aspect of English second language instruction has waned as attention to communicative competence has waxed.

I know of no second language program which has taken student self-awareness (#6) as a major goal, although discussions turning on self-analysis and self-revelation appear to be strongly encouraged in some of the contemporary 'humanistic' language teaching approaches such as Community Language Learning. The analytical, problem-solving aspect (#4) of language study is, likewise, not currently much in favor, although in my own country there is a small but vocal resurgence of interest in the study of Latin and foreign languages, justified as the means for improving general intellectual skills.

Having made a general commitment to program content (the 7 A's), our task becomes one of organizing the development staff to produce the relevant materials. This includes setting priorities for content areas for various kinds of students at various ages and proficiency levels. It requires establishing work teams which will assume responsibility for materials production in the agreed-upon content areas. Our own project consisted of three developmental groups — Language Skills, Language Systems and Literature — which gave their names to sub-programs of HEP. Content responsibilities for these three groups are shown in the last column in Table 3. An outline of the materials content for the three sub-programs is given in the last section of this paper.

4 Atomistic vs Holistic: How is Language Skill Development Best Fostered?

There has been a long and continuing controversy in language teaching as to the best way to foster language skill development. At one extreme the process of such skill development is seen as analogous to building a mosaic. In mosaic building each tile has to be color-selected, shaped, and then fitted to the existing tiles. While the finished mosaic can be appreciated as a whole, it is also describable as a set of minute discrete elements, each finely shaped and fitted to the others. Language is seen as a set of such discrete, shapable entities — phonetic features, phonemes, syllables, words, phrases, clauses, sentences, passages — fitted into a composite. The shaping and assembly of the elements is rational and incremental; the whole is, in fact, the sum of the individual parts.

Task-analytic and diagnostic-prescriptive approaches to language skill development are rooted in this tradition. This point of view also undergirds that school of reading instruction customarily associated with 'phonics'. As

TABLE 3 **SEVEN CLAIMS ON ENGLISH LANGUAGE CURRICULA (THE 7 'A's)**

CLAIM FOCUS	CONTENT	COMPARABILITY TO OTHER CURRICULUM AREAS	PRIMARILY FOUND IN HEP SUB-PROGRAMME
1 Abilities	Topic Independent Tool skills — reading writing listening speaking	Physical Education	Language Skills
2 Art/Aesthetics	Literature Language as art medium	Painting, Music	Literature
3 Artifacts	Information about language usage/grammar History of English	Chemistry	Language Systems
4 Analytics	Problem solving skills Scientific thinking Transformational operations	'New' Math 'New' Science	Language Systems
5 Acculturation	Cultural literature Ethnic languages and dialects. Sociolinguistic topics.	Social Studies Ethnic Studies Civics	Literature, Language Systems
6 Affect/Awareness	Ideolects "Who am I?" Personal uniqueness	Creative Writing Creative Drama	Literature
7 Activation/ Agreement	Communicative competence Rhetorical effectiveness	Vocational Training (Auto Mechanics)	Language skills

well, it is this view which motivates 'structural' approaches to second language teaching.

At the other extreme, the process of language development might be compared to Michelangelo's view of stone sculpting. Michelangelo claimed that finished figures were obvious to him as he gazed at uncut blocks in the quarries of Carrara. He looked at sculpting as releasing the figures from the marble, for others to see, by the process of discarding the unwanted stone.

Language can similarly be seen as a universal and idealized form which lies beneath the surface features of a particular realization called, say, Spanish. Learning English then becomes a process of getting in touch with a new surface realization of an already known underlying form. How this is accomplished is not clearly understood. However, instilling a desire to communicate and exposing the learner to the new language in realistic situations for use are felt to be the best that pedagogy can provide.*

Those associated with variations of this view of language development are committed to 'holistic learning', 'language rich environments', and 'learning by doing'. Schools of reading instruction inclined to a similar view are founded on 'Language Experience' or 'Psycholinguistic' approaches. In second language learning, 'Immersion' is the technique most clearly founded in this tradition.

In designing language curricula, one unavoidably enters the arena in which these two points of view contend. Typical design responses are to plump for one or the other or to opt for some undefined middleground and label the resultant program 'eclectic'.

After considerable agonizing between these two points of view, each articulately supported by various members of our own staff, we decided to recognize both of these points of view in the program design. We felt they were not 'blendable', but that each required different programmatic rationale, support, and materials. This decision was motivated by several considerations.

Observations of language behavior suggest that both sorts of strategies are used by learners in acquiring various kinds of language skills. From the learner's point of view these strategies can be viewed as complementary

---

*See for example, Newmark, L *How Not to Interfere with Language learning IJAL,* Vol 32, #1, Part II, 1966. pp 77-83

rather than competing. (Analogously, we might say that molecular and wave theories are complementary rather than competing alternatives in explaining certain characteristics of light).

We observed that some students seemed to respond better to teaching strategies favoring an atomistic approach, others to strategies following more holistic approaches. Further, it was our feeling that some language skills seemed to lend themselves to teaching strategies of an essentially incremental, task-analytic nature and that some language skills seemed to lend themselves to teaching strategies of a more holistic nature. For example, learning to type is a skill which appears to favor an incremental approach; learning to talk is a skill which appears to favor a holistic approach.

The outcome of our design decision was to construct two skills development strands — one, called Skills Laboratory, represents an incremental, task-analytic approach to language skills development; the other, called Skills Workshop, is built on a holistic, language-in-use approach to language skills development.

The Skills Lab provides basic skills essential to discoursing better, in speaking and in writing. The Lab treats skills in isolation, whereas the Workshop provides for their application in various discoursing contexts. The Lab uses a part-to-whole strategy, the Workshop a whole-to-part strategy. Whereas the Lab mateials are individualized and self-monitoring, the Workshop units require group interaction and collaboration (since discourse is by definition social).

Students enter the Lab to work at specific competencies they need or want. This set covers a broad spectrum of 'how-to' skills, from basic decoding/encoding and comprehension proficiences through information collecting and processing skills (like locating information and using references) and specialized skills (typing, speed reading, speed listening) to skills in written and spoken formulation.

In the Workshop, within units designed to elicit and foster certain kinds of languaging, students apply, exercise, extend, refine, and diversify their discoursing competencies. The unit themes are in fact selected for their potential to generate characteristic and important kinds of spoken and written products. It is in the Workshop units that the particulars of the various modes of discourse are treated: styles (personal/informal to public/formal), levels (concrete to abstract), and forms (narration, exposition, dialogue, poetry, argumentation, etc). The device of the Workshop unit provides authentic context and a simulated 'community of discourse' which reduces the sense of fragmentation and purposelessness which characterizes many composition and speech programs.

To suggest how this distinction is realized in the materials themselves, consult the brief descriptions given for sample units in the final section of this paper.

5 Products and Processes: What Does the Finished Material Set Look Like?

To this point, it is disheartening to realize, I have said little about materials development *per se,* but more about how one gets to the point of deciding what materials one wants to develop. For those interested in the materials outcome of the previously discussed planning, I conclude with an overview of the upper level (secondary school) portion of the HEP, a chart showing the flow of the total program (Table 4) and a short description of four sample units from each of the principal sub-programs.

INSTRUCTIONAL DESIGN OF THE SECONDARY ENGLISH PROGRAM

The Secondary English Program (SEP), the upper level of HEP, is composed of three sub-programs: **Language Systems, Literature and Language Skills**. These are briefly described below.

The **Language Systems** sub-program is about the nature of language: How we learn it, what we know when we know it, how we use it, and what knowing a language does for us and to us. The materials are organized into eight-week units, one or two per grade level. Materials include Teacher Manuals, Students Manuals, commercial books, card games, board games, activity cards, filmstrips, cassette tapes and 16mm films. Each unit explores a topic related to four themes (or questions linguists and communication scientists ask): How we communicate with ourselves, How we communicate with others. How we acquire language, and How language and culture are related. The units emphasize that language is rule-governed behavior, that the rules (or 'grammars') are shared by everyone agreeing to use that language. Through a rich variety of whole-class, small group and individual activities, students learn how the parts of communication systems (the roles we play, the sounds and words and sentences we use, etc) go together to achieve various purposes.

The **Literature** sub-program views literature as an art that provides students a particular way of knowing — of comprehending the world of human experiences. The program seeks to develop this comprehension through: 1) utilizing enjoyment as a means of involvement with literature, 2) building a constantly expanding frame of reference in literature, and 3) encouraging many experiences with the literature-making process.

Since small-group interaction is an essential part of our program, we have attempted to organize the reading material in any one unit within a

reasonably difficult range so that the 3 to 5 students working together will be able to read and understand the material independently before they begin their group work. The units are designated as to reading difficulty level, and teachers will be able to choose, from the 9 units available for each grade level, approximately 4 that would be the most appropriate for any one class. Students are asked to read and respond to each work in both anlaytical and creative ways.

At each grade level there is also an informal emphasis on one particular type of literature, although all types are represented.

The students in the program are expected to make their own choices, with some teacher guidance, about which units they will work with and which peers they will interact with. Although each unit is expected to be completed in 3 to 3½ weeks, within that range the student paces himself and makes some choices about which activities he will pursue.

The **Language Skills** sub-program has two parts — the Skills Laboratory and the Skills Workshop — which use complementary approaches to improving students' facility in using English. The Skills Lab goes from parts to the whole, whereas the Skills Workshop goes from the whole to its parts.

The Skills Lab aims to help students improve their accuracy, fluency and versatility in using English. The objective is the same, whether students are barely fluent or very fluent, barely literate or very literate. The units deal with identifiable bits of language, focusing attention at different times on the code itself, on words, on sentence patterns, and on logical patterns. The intent is to expand the stock of language resources that students can understand and use in speaking, reading, and writing, both casual and informal. Since the language system itself is dynamic, not static, students perform activities which are manipulations of the ingredients of language, in speech and in print.

The program consists of lower and upper level sequences in Coding (reading and spelling), Word Craft (vocabulary development), Sentence Craft (increasing versatility in the use of sentence patterns), and Passage Craft (comprehending and using the signals of sequence and logic that appear in longer pieces). In addition there is a classroom collection of graded paperbacks for free reading, some of which are accompanied by comprehension units for use by students who have a hard time following the thread of long pieces. There are also units on reference and study skills.

With the lower-level units, the Skills Lab uses precision-teaching techniques. Students are screened at entry into the Lab and their study

sequences are individually plotted according to their performance. Criterion-referenced checks and individual monitoring sheets enable them to chart their own progress through the lessons and units they are to work on.

The Workshop approach to the Skills sub-program is more integrative. Its focus is on using speaking, writing, listening, reading, and analytical skills for a purpose. The Workshops consist of six units arranged in a loose but spiralling sequence of skill development from grades seven through twelve.

Collectively, the units are designed to complement the Language Skills Laboratory in two ways: 1) by providing occasions for applying (including practicing, reviewing), integrating, and extending such language skills as the student may already be proficient in and, 2) by requiring students to orchestrate these skills for a purpose, eg to perform complex language tasks such as write a poem or editorial, script a segment of a dialogue, or transcribe and edit an interview, keeping in mind an effect they wish to achieve and a particular audience they wish to reach.

Each unit focuses on a distinctive kind of human interaction involving language use: the Poetry and Drama workshops deal primarily with the expressive and artistic aims of language use, while Courtroom, Broadcasting and News Writing deal with informative and anlaytical/critical aims. In addition to these aims, News Writing and Courtroom also deal with persuasion and argumentation.

My title was chosen with the intention of suggesting not only a survey, but a subject under consideration and change and, as well, an outlook for the future. Our prospecting for the most promising veins to mine in educational program has profited greatly from the visions and realization of others in our craft. I hope the present piece, similarly, contributes some new prospects to those of you who share our commitment to excellence in the craft of materials development.

TABLE 4 **SECONDARY ENGLISH PROGRAM: Schedule of Units**

		7	8	9	10	11	12	
COGNITIVE & ESTHETIC DEVELOPMENT:	LITERARY STUDIES	7th GRADE LITERATURE (short story)	8th GRADE LITERATURE * (non-fiction)	9th GRADE LITERATURE (poetry and prose)	10th GRADE LITERATURE (literature of the Americas)	11th GRADE LITERATURE (Asian and Pacific literature)	12th GRADE LITERATURE (British and European literature)	QUARTER
	LANGUAGE AND COMMUNICATION STUDIES	JOKE MACHINE * (language devices in humor) SURVIVAL KIT (school learning skills)	SPEAKING OF PEOPLE (language and stereotyping) OUT OF THIS WORLD (language and perception)	GAMES PEOPLE SPEAK (interpersonal communication)	GETTING IT TOGETHER (the language of ritual and belief)	UNCONNING OURSELVES (language and consciousness)	THE POET & THE PERSUADER (poetic and persuasive language)	QUARTER
SKILLS IMPROVEMENT:	READING LABORATORY	INTERMEDIATE READING: .CODING * .READER'S COLLECTION .COMPREHENSION GUIDES .WORDS, CLASSES, AND CONCEPTS .WORD CRAFT			HIGH SCHOOL READING: .COMMERCIAL COMPONENTS .SKILL BUILDERS .READER'S COLLECTION .PROCEDURE FOR IMPROVING READING RATE .READING HELPS, ETC. .ADVANCED WORD CRAFT			SEMESTER
	LANGUAGE CRAFTING SERIES	.SENTENCE CRAFT I .PASSAGE CRAFT I	.SENTENCE CRAFT II .PASSAGE CRAFT II			.HOW TO READ A BOOK (JUNIOR VERSION)		
	SPEAKING/ COMPOSING SERIES	DRAMA WORKSHOP* (creating stories through character action, dialogue)	POETRY WORKSHOP (using language evocatively)	BROADCASTING WORKSHOP (using language to announce and report)	SCHOOL AND COLLEGE WRITER'S WORKSHOP (grammar and exposition)	MAGAZINE WORKSHOP (rhetoric and the essay, article, and critique)	COURTROOM WORKSHOP (logic and the language of argumentation)	

* Sample unit descriptions provided

Sample Unit Materials Descriptions

Literature

They Came by Sea (Crosscurrents) (1 of 9 Sub-units)	In this unit, students will read about the various heritages that comprise the unique culture and ethos of Hawaii today in the forms of diary excerpts, non-fictional accounts of immigrants and their children, and short stories by island writers.	
Mysteries from the Past Crosscurrents) (1 of 9 Sub-units)	The earth, the jungles, the remote islands of the Pacific — all over the world one finds evidence of fascinating vanished civilizations whose technology far surpasses what might be expected. This unit introduces the students to four of these famous mysteries and gives them a variety of options for activities through which they may become more familiar with some aspects of these mysteries. Through these materials students should come to realize the 'humanness' of man through long ages of time.	

Language Systems

Joke Machine	This unit helps students to discover the rule-governed nature of language generation by analyzing and creating humorous language and to consider the psychological and sociological contexts of humor.	Through worksheets, puzzles, small group and whole class games, word wheels, joke books, cassette tapes, and a filmstrip; the unit focuses on the use of language for word play. Some of the language devices studied are rhyme, alliteration, tongue twisters, spoonerisms, overlapping and combining words, and treating new words out of roots and suffixes.

Skills Laboratory

Coding I	This unit helps students to read and spell words in isolation and in context and to get the drift of short passages and stories in which the words are used.	The unit consists of 18 books containing 88 lessons with instructional tapes. A diagnostic-prescriptive procedure is used for programming individuals into the books. Students see, hear, say, copy, and spell words and read them in context.

Skills Workshop

Drama Workshop	This unit helps students to increase their competencies in describing observed and imagined phenomena; giving clear oral and written directions that culminate in giving clear stage directions; analyzing and writing dialogues that reveal state of mind, situation, conflict and character; and working individually, in pairs, in small groups, and with the whole class.	The unit focuses on the areas of sensory language, pantomime, the radio play, the elements of stories, and story dramatization. Materials consist of student handbooks, a teacher's manual, a record, cassette tapes, six pamphlet melodramas, and two pads of consumable comic strips.

EDUCATION, IDEOLOGY, AND MATERIALS DESIGN: A TANZANIAN EXPERIENCE

Chris Brumfit, University of London, Institute of Education

The purpose of this paper is to describe a project in syllabus design — and ultimately in materials design — which started in 1969 and has long been superseded. It may seem curious, if not arrogant, to look so far back in the past for a paper to be published in 1979; however, there are a number of features of this Tanzanian experience which seem well worth passing on. Particularly, it seems worthwhile to record an attempt to relate both the organisational strategies and the content of a language syllabus to the wider social aims of an educational system. Perhaps we should take such a close relationship for granted, but it is clear that in practice syllabus and materials development often takes place in a social vacuum.

Integration within the educational system

It is probably not unfair to most educational systems to characterise the relations between the parts which most affect teachers by the following diagram:

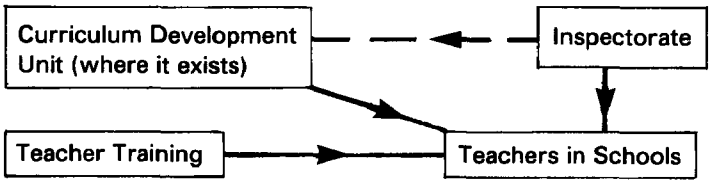


Fig. 1

One of the effects of the Tanzanian experience in language teaching was — partly by intention and partly by luck — to produce something much more closely integrated, as in the following diagram:

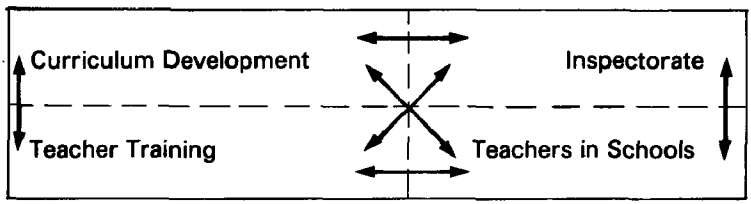


Fig.2

To achieve such integration administrative decisions are not enough. It was necessary to provide enough guidance to teachers for there to be a common vocabulary for discussion of language teaching problems, without providing such strong control that initiative was inhibited. If curriculum development was to be a shared enterprise, we needed to develop a balance between control and freedom which was analagous to that which is sought by any democratic society. Fortunately, there was no question about government support for such a position. Efforts in curriculum development paralleled efforts in other areas of activity, and a government policy of decentralisation and encouragement of local unofficial initiatives — even where they involve criticism of government policy — provided us with essential support. Thus we were lucky that the impetus for change came from the necessary decolonisation process, while many of the particular features of the change were closely related to the government's socialist policies. Educational innovation was obviously a vital instrument for promoting these.

There were two sets of administrative arrangements which assisted development in English teaching. A regular programme of in-service courses operated as a two-way exchange of ideas between teachers up-country and ministry officials and advisers, but the process was facilitated by the establishment of coordinators for each subject in various zones of the country. Zonal coordinators were expected to teach a lighter timetable than other teachers and to consult and advise for the rest of their time. (In practice, for a variety of reasons, they frequently found themselves 'coordinating' in their spare time, and still teaching a full timetable). Nonetheless, a link at the official level was thus created between the realities of the classroom and the advising committees, for zonal coordinators were ex-officio members of the advisory language teaching panel which met about once a month and had several on-going committees for the development of back-up materials. All this was at the official level, but in order to avoid too centralised initiative teachers were encouraged to set up independent English Language Teachers' Associations which acted locally to provide a source for ideas and experimentation. More than a dozen local associations were founded, so that a national association could be formed, in liaison with the Language Association of Tanzania, and a Bulletin was produced with news of the activities of various branches and an active exchange of ideas independent of the government agencies. Indeed a number of criticisms of work of the Ministry were made in a way which would have been far more difficult if official channels had had to be used. The interaction between official and unofficial organisations, with no government involvement whatsoever in the unofficial activities, was a major cause of the extensive local activity which developed.

What has been described so far need not have had any significance for curriculum development. It was necessary to provide a sense of direction. In order to do this, it seemed sensible to produce a document which related the specific syllabus for classroom use to the broader methodological and educational issues which that syllabus should exemplify. If the principles which underlay our language teaching were made as explicit as possible, it would be possible to criticise and improve on our present performance. But we had to be clear about the purpose of making these principles explicit: not to lay down a law, but to create a common frame of reference for discussion. We needed a document which would be precise enough to be used as a support by newly trained or newly arrived expatriate teachers and flexible enough not to inhibit the creativity of the experienced teacher. In the end we formulated the position that teachers would be expected to adhere reasonably closely to the syllabus and principles that we outlined, unless they had good reasons not to. 'Good reasons' might relate to local conditions, or might imply major criticism of the syllabus and principles themselves. In the latter case the English Teachers' Associations or the official in-service courses, or the various materials circulating should provide plenty of opportunities for modification and change. Such change did indeed take place, but we wanted it to be principled rather than random, and we wanted it to result from discussion between teacher trainers, ministry officials, teachers and coordinators. A common document, to which all were able to refer, made such an integrated response possible, once we had either set up, or encouraged the setting up, of machinery for the expression of a response.

The educational system in Tanzania had among its major aims the development of an enquiring mind, a positive attitude towards cooperative endeavour, and a sense of responsibility to the community for the privilege of education. This emphasis, of course, sprang partly from Tanzania's poverty: education, particularly secondary education, **could** not be wasted. The machinery for the development of the curriculum was set up with the same principles in mind.

The English language course

The secondary school course had to take pupils after seven years in primary school, during which they would have had English as a subject ever since Standard I but never as a medium of instruction, and in four years of English medium schooling (but Swahili medium as soon as feasible) take them to 'O' Level standard in competition, at that time, with countries whose children had had English medium all the way through primary school.

The linguistic principles on which the course was based derived more from practical experience than from linguistic theory, though of course it

reflected in its formulation the assumptions of the time. We took as our basis an error analysis, and saw our main task as that of preventing the most obtrusive errors. Where it seemed helpful we did not hesitate to turn to a comparison of Swahili and English in constructing classroom materials, but only after the anlaysis of actually occurring mistakes. We argued that pupils came into secondary school speaking a variety of English which apparently reflected heavy L1 interference, reinforced by constant exposure to teachers whose English was a version of the same variety. Since we were concerned with a Ministry policy, and an external examination, which expected an internationally intelligible variety of English to be taught, we could not simply accept a local variety. Yet students were fluent in this variety, and constantly having it reinforced both inside and outside school. It seemed most sensible, then, to produce a syllabus which was essentially a 'patching-up' operation, concentrating on eradiciating 'errors' which would interfere with comfortable intelligibility. We aimed therefore not to try — consciously — to extend the pupils' range of English at all, but to attempt to ensure that all students at 'O' Level had complete **mastery** of the syntax and lexis which they were supposed to have acquired at the end of their primary school careers. The course was built up around a series of syntactic items, each of which was a major cause of difficulty, but all of which had been taught before. The course as planned was highly structured, but it was intended also to be integrated, not a series of separate lessons on comprehension, writing, oral work, etc, and as fully contextualised as possible. It was also designed to allow maximum activity to the students and minimum to the teacher. Finally, it had to be comprehensible to teachers who knew very little about language teaching.

In order to carry out this programme the Ministry of National Education secondary school English Language Syllabus was rewritten from scratch. What emerged, in July 1969, was called 'A Handbook for English Teachers' and was divided into three parts. The first two parts were in a printed book of 112 pages, distributed to every secondary English teacher in the country. The first part consisted of a detailed series of schemes of work for oral work, grammar and continuous writing, intensive reading and summary work. These schemes, and the exercises which were later produced based on them, were very carefully integrated with each other in a system which I shall explain below. The second part consisted of a series of short essays and notes on methodology, on such topics as the use of drills and exercises, the use of audio- and visual aids, the setting of exams, use of the school library, etc. A strong editorial policy was exercised, so that all of these presented a consistent view on what the teacher of English should be doing. This section also contained a great deal of untechnically presented pedagogical and linguistic theory, and a glossary of linguistic terms. Separately, and duplicated, a third part was issued containing specimens of recent examination papers, syllabuses for exams, summaries

of the primary school and university language syllabuses, for all languages, annotated booklists, both textbooks and books for teachers, and other background material. All this was supposed to be brought up to date about once a year, so that teachers would always have all necessary information to be able to see the full context of their teaching.

The organisation of the course, as laid out in the first part of the **Handbook**, was as follows:

I *Pronunciation component*
II Remedial structure component
III Composition component

} based on one syntactic area needing remedial work.

There were about thirty stages, each with this shape, and a parallel intensive reading and extensive reading reading programme, both carefully graded.

It was designed as a three-year course, leaving the final year free to allow slower streams to complete it and faster ones to work specifically towards the examination. We felt it to be particularly important that each stage was regarded as a unit of content to be covered thoroughly and **not** as a time unit. The assumption (though we did not articulate it at the time) was that it is far more efficient to cover a little thoroughly than a lot superficially — a principle which perhaps more courses should consider. We took, therefore, the thirty most common areas of structural difficulty and arranged them in a suitable order for teaching purposes. Closely related to this we arranged a writing course which moved from strongly controlled to loosely guided to free writing by carefully worked-out stages, and also a graded course dealing with the basic pronunciation errors that we wanted to eradicate. Throughout the course we based the pronunciation work on the same materials that we used in the structure work, and for the first year at least that led on to controlled writing materials exercising the structural difficulty being treated. Much of the teaching was not explicit; the material provided simply gave pupils the opportunity to exercise the area in need of treatment under controlled conditions. During the oral stage small corrections to pronunciation could be made as and when necessary, but at each stage one specific point only would be dealt with. Thus each stage started with oral work, practice on a structure which also incorporated in the exercises examples of a particular phonemic confusion — say / 1 / - / r / or / æ / - / ʌ /. At the same time one of the most glaringly misstressed words would be introduced a few times into the texts — say ad'vice (commonly mispronounced *'advice). Each stage would also deal

with one or two areas where weak forms should be produced, and these could usually be tied closely to the structural point being dealt with — say the weak form or contraction of **would** when the conditionals came up. When pupils' performance necessitated it, extra specific exercises were available to deal with problems in these areas. On top of this some specific work might be introduced on syllable recognition, and later introductory work on other suprasegmental features. Thus the oral work was conducted at several levels, dealing sometimes with specific mistakes, sometimes with specific types of mistake, and sometimes with general problems which required the student to gain an implicit understanding of some linguistic principle.

The teaching procedures used varied, for teachers were left with a great deal of freedom. A variety of short exercises was usually presented, perhaps in the form of language games, leading from or on to conversation. At the same time, of course, there was concentrated work on the written structural material, and on the writing exercises themselves, which were constructed to allow the maximum opportunity for preparation and/or correction in pairs or groups, thus providing the opportunity for fluent, goal-directed discussion to take place.

Work on reading and summarising was being carried out at the same time, but was not staged in such detail. The reading programme consisted of extensive work with readers of the appropriate level, usually read silently with heavy emphasis on private pleasure and little on evaluation or feedback except informally, combined with regular extensive reading exercises, again using small group discussion, and often multiple-choice questions. The work on summarising was fitted in to the scheme of work for writing, so that some of the reading activity slotted in to points in the more formal schemes, but it was generally kept independent.

The course thus gave teachers about thirty units to cover in about three years. It was not envisaged, however, that what would emerge would be a rigid course to be followed exactly. Instead, each teacher, it was hoped, would be constantly adapting materials to the needs of his class within the given broad framework. This process of adaptation, with maximum consultation with colleagues, would constitute itself a major in-service training tool, and would also ensure that the syllabus itself never petrified.

Teacher activity

The 'Handbook for English Teachers' was produced in draft, circulated to all secondary schools, and subsequently revised as a result of a week's in-service course devoted entirely to examining and rewriting the draft in the

light of schools' experience trying to use it. Its distribution provided the impetus for the production of quantities of materials at a local level which were circulated through the English Teachers Associations so that each region could try out its own and other regions' materials. Only after this had been going on for some years was Ministry support forthcoming for the compilation of a textbook on the basis of the scheme, and by that time a number of revisions needed to be made. Such revisions would spring partly from the experiences of schools trying to implement the schemes of work provided in the **Handbook**, and partly from changing ideas about language teaching. Official and unofficial channels enabled a vast amount of citicism, both sympathetic and unsympathetic, to be aired, and as a result of this many changes could be made. The situation was made as principled but as fluid as possible. Indeed it was described, perhaps not entirely unjustly, as 'systematised flux'.

What the **Handbook** did most usefully, in retrospect, was to provide a document which could be taken as given during discussion. Secondary school teachers in training worked from it, ministry officials used it as a starting point for policy discussion, coordinators visiting schools could expect teachers to explain why they disagreed with it, or show how they developed its ideas in directions of their own. Instead of spending a long time working out whether we all had more or less the same ideas without any firm places in which to anchor our discussion, we were able to define our disagreements in terms of the discussion in the **Handbook** and thus save a great deal of time. At the same time it provided a crutch for those who felt they needed one, an example of a scheme of work for those who wanted to make their own, and a great deal of basic information which individuals could have wasted a lot of time in pursuing. Of course there were many ways in which it could have been improved, but once it was there it was possible to say that anything useful to English teachers should be added to it: the framework for change was available because all teachers had access to a common point — they could start talking to each other.

A note of warning

It will have been noted that the Handbook described above was a collaborative effort; indeed it appeared anonymously. Its credibility depended on two features, however. First, it had to appear more than merely a collection of individual good ideas: it was not a symposium. For this reason it was edited to make it consistent, so that it reflected a single position, just as one would expect a well-organised English department in a school to reflect a clearly articulated attitude to English teaching, even while its members will clearly have their own varied approaches and ideas. It is quite possible to have a consistent point of view which reflects recent

ideas about language teaching, laid down very clearly, which fails to take local conditions into account. The credibility was secondly dependent on the Handbook's recognition of the normal teaching situation (it reflected very closely practice in two Tanzanian schools, and was written entirely by people with extensive experience of such schools). If it had been written by outsiders, however expert, I do not think it would have been acceptable. Anyway, such a requirement was implicit in the whole exercise, and in this paper. I have tried to contend that the process of materials development cannot be separated from all the other aspects of the English teaching situation, and that the easiest way of integrating such development is to combine administrative changes (not of a very radical nature) with the establishment of a common frame of reference. I have then tried to argue that ultimately materials development and activating teachers must be seen not merely as linked but as almost identical processes. This is because it is the teachers, in the last resort, who have to use (ie make the final development of) the materials. They cannot really be excluded from the process.

This suggests that we can choose either a weak or a strong form of the Tanzanian experience. The weak form would accept the desirability of setting up the channels of communication outlined in this paper, and would welcome the establishment of a common frame of reference for discussion. But this would be seen essentially as a means of manipulation from above, a way of helping people to improve, and at the same time of ensuring sufficient feedback to keep materials and curriculum reform in touch with the people for whom they were being prepared. In this form the experts are being helped to work more efficiently.

The strong form sees this design more radically, as an attempt, not to abolish experts, but to train them where they belong, in the classroom. If teachers develop curriculum, their teaching will improve and curriculum development will be realistic. This is not to deny the necessity of expertise (nor is it to suggest that no-one is needed to coordinate a programme like the Tanzanian one), but it is to suggest that expertise must come from two sources, the local classroom and the theoretical basis, and that anyone involved in curriculum development must have personal experience of both, and a strong commitment to living with constant reassessment. This paper has described a particular situation in some detail. It developed in a particular place at a particular time. I would like to think that many of the ideas explored there will be relevant to other places and other times.

THE ENGLISH LANGUAGE CENTRE, JEDDAH

Peter Roe, King Abdulaziz University, Jeddah

Introduction

In this article I shall present the work of the English Language Centre as an exercise in ESP programme design. In so doing I shall seek to bring out a number of crucial design principles to be observed in the establishment of a comparable institution. These are:

1 It is essential that the Centre be considered both as a sub-system (in the context of the larger complex of systems which it serves — in this case the University) and as a system comprising a complex of sub-systems.

2 As a sub-system, it must be meaningfully integrated into the larger system it serves (eg the College or University concerned). But this relationship is highly complex, being determined partly by the variable liaisons of its own sub-systems with the numerous sub-systems of its environment.

3 As a system, the Centre must be dynamic, with sensitive feedback loops at all levels to facilitate adaptation with minimal time-lag to changes in the larger system.

4 There must be a small number of high-level generative principles (eg at the level of principles of staff management, learning theory, etc) which will automatically provide effective criteria for lower-level decision-making (eg at the level of deciding who should be promoted or how long to spend correcting a student's error). In other words, there must be a genetic code which gives the species its broader characteristics while allowing for differentiation at lower levels down to that of the individual.

5 As a system, the Centre must have a viable identity independent of its individual sub-systems. It must be able to survive the replacement of, say, 50% of the staff, including the Director, the loss of existing courses and the development of new ones.

As a conclusion, I shall refer to these principles to suggest what I consider, in the light of experience, the direction in which ESP/EST programmes must evolve if they are to become optimally efficient.

Origins

The English Language Centre, King Abdulaziz University, Jeddah, was particularly fortunate in the way it was set up. The initiating document (1),

in accordance with 4 above, established the high-level guiding principles which allowed a viable service institution to develop. The most important of these were:

1 Framing the objectives in terms of effective communicative competence in terms meaningful both to the staff of the faculties concerned and to the students themselves, as well as to the lecturers in the Language Centre.

2 Focussing on the importance of learning by doing. This was by no means an original notion, but in practice it is a custom characterised much more frequently by lip service than by the observance.

3 Establishing the paramountcy of student motivation. Again, not an original notion, but one so often sadly misapplied in practice. In an ESP context only one kind of 'purpose' must determine the methodology — that of the students.

4 Recognising that hardware and materials are means to an end and not a substitute for those ends. Materials are **generated** by the higher-level principles, and like many low-level components can be replaced without prejudicing the viability of the system. The need for hardware is in turn generated by the methodology and software materials of the programmes. The originator of the initiating document made ample provision for a wide range of hardware without prescribing how it had to be used.

5 Making detailed suggestions as to how the programmes might get into gear, while stressing that a period of exploration and development was essential. That stage of growth and adaptation has now given way to a period of relative equilibrium. Rapid adjustment, sometimes of major proportions, is still inevitable as the policy of the University evolves, but the ELC, in systemic terms, is now a viable entity.

I have found these principles entirely helpful and effective, and at the right level of generality. I believe that some ESP specifications today tend to go into such detail that they become virtually useless. Over-specification leads to rigidity, which in turn leads to the non-viability of the system. In phylogenetic terms one might say 'Adapt or die'.

The programmes

The ELC was originally (1975) established to give students of the Colleges of Medicine and Engineering the English Language skills they require to pursue their studies through the medium of English. During 1979,

however, the number of separate courses being taught at any one time is of the order of 20, as follows:

1 College of Medicine:
   a The Foundation-Year programme, starting with 20 hours and reducing to 12 hours per week.
   b Seminar skills and essay writing for intermediate years.
   c Preparation for PLAB tests, or similar, for senior students.

2 College of Engineering:
   The Zero-Year programme at 16 hours per week. This is divided into three phases and five sub-phases, all of which may be taught concurrently.

3 School of Environmental Design:
   a The Zero-Year programme at 16 hours per week.
   b The continuation programme at 8 hours per week.

4 The College of Earth Sciences (incorporating the former Institute of Applied Geology);
   a A two-year, 8-hour-per-week programme in preparation for English medium in the third year.
   b An 8 hour programme for 2nd-year English medium students.
   c An 8 hour programme for postgraduates.

5 The Institute of Meteorology and Arid Land Studies: A 1-year 16 hour programme for students converting to English medium.

6 Elementary, Intermediate and Advanced classes for graduates leading to TOEFL and comparable tests, and the ELC's study-skills training programme.

7 The Faculty of Science (Arabic medium):
   a A reading course in general scientific English (5 hours per week for one semester).
   b A reading course in the language of a particular scientific discipline.
   c A course in listening skills.
   (These courses are in the process of development).

8 Postgraduate courses for the Faculty of Public Administration and Economics are still in the discussion stage.

It is clearly impossible to give a detailed description of all of the above programmes. In any case, from any one semester to the next there is considerable variation in detail and some degree of more fundamental change. As an illustration, one of the courses is examined in more detail below (section 8).

The facilities

The ELC is housed in its own custom-built premises. The facilities include:

1 A large television studio with three B/W cameras, a portable colour camera, and the usual ancillaries.

2 A large area equipped as a library for training reference skills, sufficient to hold four classes at a time. In addition there are study carrels, some with colour video monitors, a staff library and reading area, and a section for meetings.

3 Two SIGN language laboratories.

4 An audio studio.

5 A photographic studio.

6 A graphics studio.

7 A projection room

8 Two- and four-colour photo-offset machines.

Where relevant and practicable, the ELC uses the laboratory facilities of the faculties concerned, but maintains its own science store for equipping classrooms whenever necessary. Most clasrooms are equipped with video monitors, cassette players, overhead projectors and white-boards. Various other items, such as slide projectors and programmable calculators, are also available.

Such a wide range of costly equipment could, I believe, be a millstone round the neck of any small-scale enterprise. There could be a constant feeling of need to justify the expense, and the equipment available might tend to determine the methodology, rather than vice-versa. With 73 Council-recruited staff and 22 locally engaged, however, the ELC has now reached a stage where programmes must compete for the use of sophisticated media services.

Staff Structure

In an organisation of this size it is essential that the complement of staff be effectively structured. This is a requirement of any system (4). In the ELC, as a matter of principle, teaching staff are allocated to the programmes serving one of the faculties. It is not normal for a lecturer to move from one programme to another during the course of a year. To make such a change would mean the extra burden of getting to know the workings of a new faculty, its staff, its students and above all the content of their programmes. The result is a clearly identifiable set of 'teams' which, for historical reasons, we call 'courses'. The tutor in charge of a course is called 'Head of Course'. For some purposes the team of female lecturers teaching the medical programme in the Women's College is considered a separate 'course' under its own Head of Course. When a course team gets large, the Head of Course may nominate one (or more) of his team to assist him by sharing his responsibility. Successful appointees are usually put on the Senior Lecturer salary scale at the start of the year following such nomination. Each of these courses constitutes a system which is at one and the same time a sub-system of the faculty it serves and of the ELC itself, whence part of the systemic complexity of the ELC (see 1 above). All 'course' staff constitute one group (much the more numerous); all other staff constitute the 'framework' of the ELC within which the courses operate. Of the subdivisions of the 'framework' staff I shall mention only the management, media, secretarial and general administration sections. What is important is the relation between the management and the other groups. On the principle that the efficiency of a system depends on its sharing of sub-systems, the management, or policy-making, group is joined by the Senior Head of Course (sometimes it is appropriate to have two Senior Heads of Course). Ex-officio members are the Director, his Deputy and the Assistant Director. This group of four (or five) is responsible for deciding overall policy. This policy is then passed down, mutatis mutandis, through the various levels in the system. Feedback follows similar routes in the reverse direction. Decisions are made at the lowest node in the organisational chart dominating all those affected by the decision. Where such decisions prove difficult, the matter is referred to the next higher level.

This staff structure must be such that normal changes in personnel will not mean the death of the system. There must be continuity from year to year. Therefore there is a policy of 'promotion from within' whenever possible. This means that all senior staff have a long hand-over period preceded by an even more lengthy period of 'understudy'. Possible future dispositions of personnel are assessed in the first semester. Minor structural changes may be necessary in the light of the personal attributes and 'strong points' of staff thus identified, but the general function of the system as a whole

should not be affected. (The general principle involved is mentioned at 5 of the introduction).

Staff training

This immediately raises the question of staff training. What do we do with new staff? The answer is simply that we feed them into the system. This process can be divided into five stages of increasing length. The first two of these (the shortest) are organised in London by the British Council.

1 Living in Saudi Arabia — lecture and video presentation of life outside the ELC.

2 Brief formal presentation of policy by the Director who hands new staff over to Senior Heads of Course for next level of briefing. Heads of Course take over for more detailed orientation.

3 In Jeddah, Senior Lecturers give detailed briefing in terms of daily duties and responsibilities.

4 For about two months the tutor is finding his feet and getting accustomed to operating within his sub-system. By the end of the year this phase of training is normally complete.

5 During the Course of his first year (or later) a staff member may be recognised as offering potential for carrying greater responsibility. His function within the system is then normally adjusted to give him progressively greater scope. This phase of training is never completed.

Pedagogic policy

A major function of the management group is the formulation of a pedagogic policy sufficiently general to be relevant to all Heads of Course and sufficiently powerful to provide effective guidance for all major pedagogic decisions. In this section I shall outline what the policy is.

What distinguishes the programmes of the ELC from many others is a decision made at a very high level in the hierarchical structure of a pedagogic analysis. It is such a high level decision that many people beg the question altogether. It concerns what may be characterised as 'enabling devices' or 'enabling objectives (2)'. By this is meant 'easy' intermediate stages in the learning process. A conventional coursebook will start off with a lesson deemed within the grasp of the beginner, followed by a second not within the grasp of the beginner until he has mastered the

first lesson. We support the thesis that enabling objectives are necessary in most cases, but not in the way these are usually identified. We consider the conventional analytic/synthetic approach to them a major aberration in the field of ESP/EST.

By the analytic/synthetic approach I mean identifying the language of the learner's desired terminal behaviour and then identifying, as the first function step, its major constituent elements — eg structures, lexis, functions, notions, rhetorical devices, etc. It is too difficult, the argument goes, to 'teach' all of these at the same time. It is easier to take them one at a time. So we devote a whole series of lessons to one of them, say, common functions. But one cannot start out with just any of the functions of English. There must be order, and the functions chosen will depend on selections made from other course components, especially lexis and structure. We must take 'easier' exponents first, and then identify a series of intermediate enabling objectives, and present them as a progression of easy steps. Having thus reduced each element to a series of easy stages, the next step is to prepare a timetable, a 'diet-sheet' showing the weekly doses of each 'nutrient', with times for their administration.

What I have just described is a rough thumbnail sketch of the analytic stage of the analytic/synthetic approach. Highly sophisticated versions of such programmes no doubt exist. But it has long been noted that earlier versions led to rather disjointed courses with no more student appeal than a plate of nutrients in tablet form. So attempts were made to rectify the situation. The simplest procedure was to 'doctor' the lexis of the various course elements by dressing them up as 'games', 'role-playing', 'simulations' etc. This marks the beginning of the synthetic stage in the analytic/synthetic approach. But anyone who has attempted to build in structure exercises using a specific technical theme will know how difficult this can be, and how uninspiring and awkward the result often is. One partial solution is to rethink one's ordering of the 'enabling stages' to make it easier to match themes and structures, but the results are at best a poor compromise. As soon as the 'text' of the lesson ceases to be purely ritual (3) and begins to have communicative value, the student will begin to react to it as a student of the discipline. His reactions will inevitably be unfavourable if the 'communication' does not match his expectations of communication in the context of that discipline.

There are four main difficulties with the materials of the anlaytic/synthetic school. They are labour intensive and very difficult to do well. When produced or purchased they are inflexible as they represent an inordinate investment in time or money. But more seriously, they may have an effect on ESP students counter to the one intended. Serious students quickly rebel against trivial or pseudo-science. And fourthly, the product may not

match any specific purpose particularly well. (The first of these difficulties applies to the materials produced by the ELC. The other three do not). To avoid such reactions, and to ensure that student motivation is harnessed as a positive force, the ELC seeks always to preserve as much realism, authenticity (4) and student acceptability as possible in a programme where ritual is almost entirely excluded and all language is justified in terms of communciation. An important condition is placed on the nature of this communication. It must be generated by the student's learning modes and learning environments as found in the faculty to which he belongs. Nothing should be done which does not correspond in all respects save two to something he will be required to do in his work in that faculty. The two exceptions are:

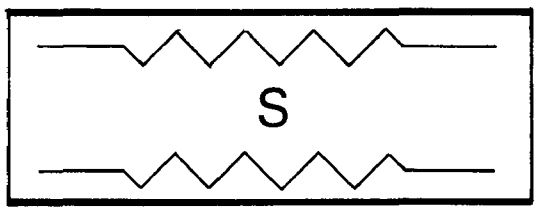
1 The staff teaching him are not members of that faculty.

2 The content of the classes is not credit-rated by the faculty.

I shall return to these two points later.

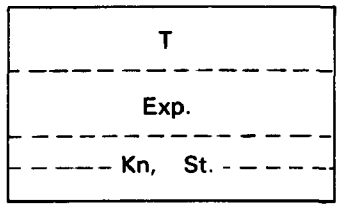
All teaching activity in the ELC must be describable in the following terms.

Let us represent the student by a black box labelled S.
I use a black box because I do not feel we can make many meaningful statements about what goes on inside the student. We have direct control only over the learning environment, but not over any components of S. However, we do know that at the end of a successful learning programme the student can perofrm tasks he could not have done previously. In some sense his internal 'circuitry' has changed. But this change is not instantaneous; it is resisted. This resistance to change, which the tutor must help the student to overcome, I represent by ⌇ I therefore, represent the sub-system 'student' as:



To keep the diagram simple, I shall not attempt to account for student/student interaction nor for differences between one student and another, matters which must of course be considered in practice.

Let us represent the tutor by T. T has a store of experience (Exp.) which enables him to make rough predictions about student capabilities and needs. He also has a knowledge store (Kn.St.) covering two domains, data and skills, from which he can make selections in the light of these capabilities and needs. I shall represent the tutor thus:



The tutor selects certain data (Da.) from his knowledge store, together with an operation or instruction (Ins.) related to a relevant skill suggested by the data. (Questions as to what data to select and what constitutes relevance should be addressed to the faculty concerned — a constant task of enquiry for ELC staff). These data and instructions are fed to the student under the influence of a number of driving forces classiifed as general motivational (Mot.), such as relevance of data to primary study purposes, sanctions in the case of failure, intrinsic interest, etc, and media, including the arousal effect, or general impact, of the channels of communication. (By far the most important of these is the much neglected 'teacher's voice', followed by teacher appearance, classroom environment, printing, art work and photography, slides, tapes, video and OHPs).

The student performs the required operation on the data and the tutor monitors his response or output (OUT.), which may consist in a neatly written report, a labelled diagram, or a frown of frustration betokening mystification and failure.

The tutor now compares the students' output with the anticipated output (Model) (5) to see whether there is a sufficiently close match to justify the assumption that the required operation has been performed on the data. If the answer is 'yes', he concludes that the student has successfully processed the data and that communication has taken place (provided, of course, the operation is non-trivial).(6) If the answer is 'no', the tutor adds this information to his store of experience, together with any other insights he can glean from a comparison of the students' inadequate output and the 'model'. As a result of this inspection he may conclude that one or more of DA., Ins., Mot. or Media are at fault and use this information to set the controls differently for a re-run or for the next stage in the learning cycle. (In practice, tutors quickly become sensitised to adjusting the controls to within satisfactory limit).

We can now use these symbols to construct a schematic representation of what, by a policy decision of the ELC management committee, is considered a necessary hallmark of acceptable classroom activity:

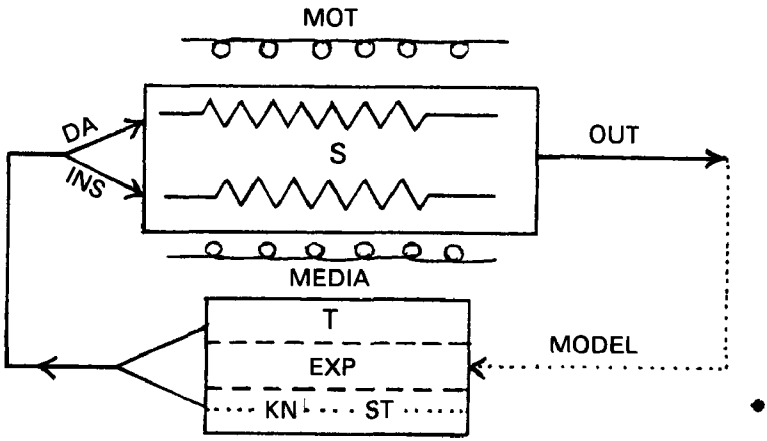


Figure 1

The diagram above represents a process controlled by means of a feedback loop. It is impossible for us to say in any detail what is happening inside the processor S, but, in cybernetic terms, one can argue that S must minimally:

3 be able to 'read' the data and instruction.

4 have developed a circuitry the logic of which will allow the operation to be performed on the data.

5 have a memory bank able to supply information assumed known.

6 be able to output the results of the operation.

A false assumption about any one of these can lead to failure of the system.

S is a learning machine. The capacity of any one of the above functions can be improved. The 'reading' and output facilities can be stepped up. The memory banks can be enlarged. Even what I have called the logic of the circuitry can be made increasingly complex and capable of more and more involved operations. S, however, has a built in resistance (-WW-) to such change. But this resistance can be overcome by bringing to bear the forces

of Mot. and Media and by adjusting the load represented by Da./Ins. to an optimum value — ie the maximum value which will lead to an acceptable output. A general pedagogic tenet of the ELC is:

7 All classroom activity must be analysable into coherent segments such that any segment either constitutes an operation, however complex or extended in time, such as that represented by Figure 1, or a sub-segment of such an operation.

There is a further condition that all such segments must be recognisable as potential sub-segments of larger units, including the unit: 'programme of study leading to a BSc degree'. (7) Such a macro-unit obviously cannot be made a pedagogic unit under the aegis of the ELC not only because of its size, but also because of the anomalies 1 and 2 above. The same applies to the unit 'course'.

The largest coherent unit currently administered in the ELC is rather smaller than a 'course', and accounts for some 50 hours of active study involvement. It is currently entitled: 'An investigation into Solar Energy', and involves all available input modes and all relevant settings, study skills and output modes. Successful participation is a prerequisite for students of the College of Engineering.

The next smaller unit is termed a 'science activity', or investigation. It normally lasts three class hours, and involves reading and lecture inputs, physical activity, data collection, discussion, data presentation, and report writing. At a lower level of focus the 'lecture' and the 'discussion seminar' are treated as pedagogic units.

The lowest level unit which satisfies the criteria of the diagram and at the same time can easily be accommodated in timetable terms is that of 'handling the lexis and structure of a particular conceptual area within the context of a small-scale operation', such as converting a problem from a verbal to an appropriate symbolic form, or describing an element in terms of its properties and its position in the Periodic Table.

I now draw attention to the crucial fact that the same diagram could be used for what is happening in the ELC and for what happens in the specialist faculty. Hence the face validity of the operation in the eyes of the student. But there is a fundamental difference which is not shown in the diagram, and that concerns evaluation of student progress. Within a faculty, the student is evaluated in terms of his acquisition of knowledge and (mainly) non-linguistic skills. He is normally tested on data covered by the course. In the ELC he is evaluated in terms of his acquisition of communication skills. **He is tested on his ability to process new data**

using the communication skills he has acquired. It is not the task of the ELC to teach content. Content is included because there must be content for there to be communication. Content is selected for relevance and face validity. The tutor in the faculty manipulates the data and instructions to a level appropriate to the students' assumed level of processing ability and (alas, all too often) ignores matters of language and communicative competence. The ELC tutor, in contrast, seeks to reduce the barrier presented by the content and non-linguistic skills to the lowest level compatible with the maintenance of face validity and student interest, and to increase the demands placed on communicative competence to the highest level compatible with a tolerable level of agreement between student output and tutor model.

At all stages of the operation the tutor monitors student performance to detect:

8 communication failure.

9 error in code control.

10 factual error.

His response to factual error is dictated by the principle of face validity, ie the tutor functions as a faculty tutor. (8)

An error in code control *per se* is corrected on the spot provided this can, when judged necessary by the tutor, be done 'in parentheses', that is without losing sight of the main operation which provides the framework for the lesson. A breakdown in communication, however, must be rectified, whether it be due to error in code control or some other cause. But such interference can be seen quite naturally to be a necessary part of the data-processing cycle and to assist rather than undermine it. Such drills and exercises in code control as are deemed necessary, are done out of class and monitored in a weekly seminar instituted for the purpose.

As I have said before, the only *raison d'etre* of the ELC is the training of communicative competence in English. It has no brief to teach content. But there is content in ELC lessons, as a necessary consequence of the fact that communication must be about something. To make communication meaningful we must make that 'something' as meaningful as possible in the eyes of the participants.

The engineering programme

I have referred in the Introduction (4) to the need for a number of 'high-level generative principles', in other words principles which if 'spelt out'

predetermine decisions at lower levels. The pedagogic policy discussed above, as summarised in 7, and the related principle concerning the relationship between ELC classes and faculty classes, are examples of these. They will in large measure determine the course components and the topics covered. They will also determine the broad nature of methodological strategies, which will in turn restrict the options available at tactical level. The set of possible realisations generated by such principles is of course very large. What is more important is the set of realisations which they preclude.

Tables 1, 2 and 3 show the breakdown of the courses for students registered with the College of Engineering in terms of weeks, topics and course components. Each entry should be read as: 'The lexis and structure commonly associated with [TOPIC] in the context of [COURSE COMPONENT]'. Courses 101 and 102 are full semester courses. 103 is a half semester course administered over a whole summer school, a whole semester at 8 hours per week or, where appropriate, the second half of a full semester at 16 hours per week. The five half-semester units thus arrived at correspond roughly to five leve s of communicative competence, (Bands 2-6 in the banding system discussed at 9 below). If during one of these units a student shows that he has outstripped his fellows and is a full band or more above the average, he is permitted to skip the next half unit, provided it is not the 103 course, which is compulsory.

The course component 'science activity' generates interactive language 'in vivo'. In the data-collection stage in 101, a lot of guidance is given on eg forms for eliciting information. A new set of forms and functions is generated by the discussion stage. A lot of guidance is necessary in the report writing stage in the first half of 101, but towards the end of 103 only minimal support is given. This component trains language production, as does the seminar component. Input to the seminar can take the form of printed text, audio tape, video cassette, drawings, photographs, films etc. The inputs (data plus instruction) are designed to stimulate lively discussion of topics which naturally restrict themselves to well defined lexical and structural areas. From week to week students improve their ability to use the langauge of negotiation appropriate to the seminar mode. The lecture component and the science reference component concentrate more on receptive skills. The language laboratory sessions focus on both production and reception, (The use of this mode makes it difficult to sustain the notion of realism of the learning environment of the engineering student. There are reasons for this lapse which I shall not discuss here. But the tasks given to the student otherwise satisfy the terms of 7 above). By 'language unit' is meant a learning programme lasting from 3 to 6 hours in which the 'task' involved is the conversion between language and non-verbal realisations (eg drawing the circuit diagram for a problem in electricity

stated in prose), the lexis and structures are those commonly associated with problems and other text dealing with a given lexical/conceptual area, and in addition a wide range of communication skills, particularly student/student interaction, are generated.

Tables 1, 2 and 3 represent one of the ELC 'dietsheets'. By following these courses, the student is given the right kinds of nutrients in the correct proportion appropriate to his stage of development, but in an appetising and assimilable form. It must not be regarded as the ELC prescription. Numerous others are in operation. They differ greatly in matters of detail; but they are all the product of the same generative principle.

Testing and evaluation

Student progress is monitored using a system developed in cooperation with the Testing Consultancies section of the British Council. It is based on the analysis of communicative competence by scale and category. The number of categories and of levels in any one scale is in theory non-finite, but the ELC has what it considers the minimum number of each. There are five main categories:

1 The broad-spectrum category, mainly concerned with code control, with some listening and reading. (Code control is important at all stages as it is one contributory factor to possible breakdowns in communication. At postgraduate level the cosmetic effect becomes increasingly important, until it is all-important for TOEFL candidates).

2 The lecture category. Students are evaluated for their ability to derive benefit from a lecture programme.

3 The seminar category. Students are assessed for their ability to take part in seminars. In view of the difficulty of assessing 'appropriate silence', only the group leaders of the week are assessed for their ability to negotiate a satisfactory conclusion of an allotted task (eg getting agreement on a matter that has originally generated disagreement).

4 The science activity category. This is too broad a category in practice for detailed assessment, as it involves so many different modes of communication, so the tutor bases his assessment on the written report at the end of each cycle.

5 The science reference category. Students follow a training programme designed to enable them to make effective use of the University library.

Each of the above five categories is analysed in a ten-point scale from 0 to 9. As an example, the assessment scale for 4 is shown in Table 4 as

adapted for students in the College of Engineering. (The zero band is not normally shown). Most students on entry fall within bands 2 and 3. The entry distribution of engineering students on the 1 scale is shown in Table 5. As soon as a student reaches band 6 on any scale, it is assumed his language skills would improve more rapidly by following a course of study in his faculty than by continued study in the ELC.

Programme evaluation

In an organisation of the size of the ELC it is neither necessary nor desirable to conduct experiments for experiment's sake. In order to judge how effective a particular programme is, one already has many points of comparison. There is plenty of variety. One can compare the success of the programme of one faculty with those of another. This is possible since all courses work to closely comparable banding systems. One can also compare class with class within courses where variations are tried out. And one can always compare one semester's progress with that of an earlier semester. The programmes of the ELC are subject to constant review. Greater use is made of strategies and tactics which have proved particularly successful, while those which have proved less effective are phased out.

The question of how we can improve our programmes is being constantly asked. So far all the significant indicators have been pointing in one direction. I shall discuss this in my final paragraph.

Conclusion

At the beginning of this paper I indicated a number of design principles that I believe must be observed in the operation of a large language centre providing comparable services. And I have referred to some of these at various stages. The ELC has to be constantly aware of the needs it serves and adapt rapidly to changes in those needs. It must therefore function at one and the same time both as a sub-system of the University, and as a system subsuming a complex of systems of its own. (1, 2 and 3). To operate such a programme effectively one cannot hope to respond to changes on an *ad hoc* basis. Each response to a new situation must be generated by a number of decisions taken at an early stage in the planning of the ELC's operations (4). In our case these are:

1 The staff structure. This determines how decisions are made and by whom. This structure must be systematic in that it must be able to suffer a change in substance (ie new staff members) without undergoing a change in form or function.

2 The constraint that for any class activity or exchange there shall be a clear, positive answer to the question: 'What 'Data + Instruction' task has given rise to it?'

3 The further constraint that any 'Data + Instruction' task be such that it could properly be generated in the faculty of the student's technical discipline.

4 The overriding assumption that a student who can communicate without difficulty at band n, but only with difficulty at band n + 1, will, when faced with a series of tasks appropriate to the n + 1 level, gradually become competent at that level.

I have said earlier that I would return to the question of the mismatch between classroom activity in the ELC and the student's faculty. And I also promised to indicate the direction in which maximally optimised ESP/EST must inevitably lie. Both promises can be simply fulfilled at one stroke, because the secret of success undoubtedly lies in the reduction or elimination of anomalies 1 and 2. All our considerable experience with dozens of courses and thousands of students points in one direction:

5 **Training in Technical English Skills for Academic Purposes must be integrated with the courses for which those skills are intended.** The nature of this paper and considerations of length preclude my going into the details of the problems raised by such a conclusion (9). There are problems, indeed. But they can be overcome. The main difficulty lies in getting going. Running the programme is relatively simple. For the ELC 5 is the obvious guiding principle to follow. Further courses, some fully integrated, some partially, are in the planning stages. We believe we have solved the problems of staffing and methodology. (Hint: it involves these categories of staff — language trained but literate in the discipline; ELC staff trained in the discipline but well aware of the nature of language and its role in communication; and faculty staff with some awareness of the language problems — all agreeing to teach at a level of communicative difficulty appropriate to the students, viz band n + 1. The rest all follows from the principles outlined in this paper).

Such a major shift in educational technology will no doubt daunt timid minds. But then so did the shift from semaphore to radio.

Notes

1 *'A Proposal by the British Council to supply education services to King Abdulaziz University, Jeddah, Saudi Arabia'* drafted by Keith Jones, 1975.

2 For a discussion of 'enabling objectives'
See Jones and Roe, *'Designing English for Science and Technology (EST Programmes in Academic Setting for Overseas Students: Problems and Perspectives', in English for Academic Study.* ETIC Occasional Paper, British Council, 1975. But in the present paper a much less sophisticated notion of 'enabling objectives' is assumed. The paper referred to provides much theoretical background to developments in the ELC.

3 'Ritual' crucially involves speech acts stripped of their felicity conditions, when eg 'Which is the lightest of the elements?' does not interrogate, and 'Helium is the lightest element' does not inform. Most student utterances can be labelled simply 'respond'. It is a salutary exercise to consider what one would have to do to arrange practice in 'promising', with all felicity conditions being met.

4 A necessary, but not sufficient, condition of authenticity is given at Pedagogic Policy 7. What would constitute sufficient conditions of authenticity is indicated in the concluding section.

5 This notion is expanded later. See 1, 8, 9 and related text.

6 There is a cline of triviality of operation from 'most trivial', where the output is explicit in the input, to 'least trivial', where the input contains none of the data made explicit in the model. For example: given as data a detailed periodic table and a book on properties of the elements:

'What is the boiling point of lead?'

would be a trivial instruction. But:

'Predict the properties of element 105'.

would be a non-trivial instruction.

7 The principle involved here is well known: An element at a given level of analysis is a constitutent of an element at a higher level and is constituted by elements at a lower level. It is important to note that an element is 'meaningful' only in its context at the higher level. Context-free language is by this definition not very 'meaningful'.

8 The fact that an ELC tutor is often seen as **not** being a faculty tutor reduces the overall efficiency of the system.

9 Enquiries are welcomed, but our response may have to be limited to brief personal letters supported by a small sample of materials. It is hoped that a write-up of a fully integrated programme will be produced over the coming year.

10 The structures outlined in this paper are the product of a wide range of pooled practical experience. Those interested in related theoretical matters may care to consult:

a Phillips and Shettlesworth: *'Questions in the design and use of courses in English for special purposes'.*

Proceedings of the 4th International Congress of A.I.L.A. Stuttgart 1975. I did not read this article until after I had completed the present paper. I was therefore surprised to find the main conclusion to be 'that learning situation discourse should be as similar to target discourse as possible. I have independently come to the same conclusion.

b M K Phillips, 'Autonomy or automation? Freedom and control in language learning techniques' in *Self-Directed Learning and Autonomy,* Cambridge Department of Linguistics/CRAPEL 1976.

c M K Phillips, 'Towards a theory of LSP methodology', in *Dimensions of Language Teaching for Special Purposes* ed. R Mackay and J Palmer, forthcoming.

d P J Roe, *The Notion of Difficulty in Scientific Text,* PhD Thesis, University of Birmingham 1977, which contains a relevant bibliography.

e P J Roe, *Scientific Text, Discourse Analysis Monograph* No 4, University of Birmingham 1977 (being relevant appendices from d above).

TABLE 1 **ENGLISH LANGUAGE CENTRE ENGINEERING: COURSE CSE 101E FALL SEMESTER 1978 – 79**

WEEK	DATES	COURSE COMPONENT													
		SCIENCE ACTIVITY		DISCUSSION		LECTURE NOTE-TAKING		SCIENCE REFERENCE		LANGUAGE UNIT		RAPID READING		TUTORIAL PRIVATE STUDY ASSIGNMENT	
1	18/11/78 –22/11/78	SA 101/1	Steam engine	D 101/1	Matter & Energy	L 101/1	Real numbers	SR 101/1	Phase I Orientation	LU 101/1-2	Number systems		Ratebuilder Blue Level		
2	25/11/78 –29/11/78	SA 101/2	Use of line shaft to lift a weight	D 101/2	Number Systems	L 101/2	Exponents & Radicals		Phase I (cont)		Number systems (cont)				
3	2/12/78 –6/12/78	SA 101/3	Pumping water with turbine pump	D 101/3	Energy & Motion	L 101/3	Integral Exponents		Phase I (cont)	LU 101/3-4	Exponents & Radicals				
4	9/12/78 –13/12/78	SA 101/4	Steamdriven generator	D 101/4	Exponents & Radicals	L 101/4	Radicals	SR 101/2	Phase II Information		Exponents & Radicals (cont)			T 101/4A	Current & p.d. (Lecture)
5	16/12/78 –20/12/78	SA 101/5	Steam engine -Line shaft-generator	D 101/5	Generators	L 101/5	Generation of electricity		extraction from basic texts	LU 101/5-6	Set Theory			T 101/5A	Ohm's law & Power (Lecture)
6	23/12/78 –27/12/78	SA 101/6	Use of Calculator	D 101/6	Computers	D 101/6	Logarithms		Phase II (cont)		Set Theory (cont)			T 101/6A T 101/6B	What can a computer do worksheet Properties of air Report writing
7	30/12/78 –3/1/79	SA 101/1A	Steam engine friction	Revision for mid-term exams											

8	6/1/79 –10/1/79	SA 101/2A	Storage battery			Mid term exams									
9	13/1/79 –17/1/79	SA 101/7	Electrostatics	D 101/7	The language of Algebra	L 101/7	Algebraic expressions		Phase II (cont)	LU 101/7-8	Algebraic Expressions & Equations				
10	20/1/79 –24/1/79	SA 101/8	Elastic materials	D 101/8	Graphs	L 101/8	Elasticity		Phase II (cont)		Algebraic Expressions & Equations (cont)			T 101/8A	Introduction to graphs STP
11	27/1/79 –31/1/79	SA 101/9	Moments & balancing weights	D 101/9	Moments	L 101/9	Ratios		Phase II (cont)	LU 101/9-10	Rate, Ratio & Proportion				
12	3/2/79 –7/2/79	SA 101/10	Use of microscope	D 101/10	Ratios	L 101/10	Optics		Phase II Information extraction		Rate, ratio & proportion (cont)		Ratebuilder violet	T 101/10A	Rate, ratio a proportion worksheet
13	10/2/79 –14/2/79	SA 101/11	Use of oscilloscope	D 101/11	CRT	L 101/11	SI units		from 'O' Level texts	LU 101/11-12	Dimensional analysis		Level (Average rate)	T 101/11A	Wave motion worksheet
14	17/2/79 –21/2/79	SA 101/12	Density, volume & mass	D 101/12	Dimensions	L 101/12	Mass & weight		Phase II (cont)		Dimensional analysis (cont)			T 101/12A T 101/12A	Report-Writing worksheet Matter & volume worksheet
15	24/2/79 –26/2/79	SA 101/3A	'C' by free fall-Ticker timer		Revision for final exams										

TABLE 2 **ENGLISH LANGUAGE CENTRE ENGINEERING: COURSE CSE 102E FALL SEMESTER 1978 — 79**

WEEK	DATES	COURSE COMPONENT													
		SCIENCE ACTIVITY		DISCUSSION		LECTURE NOTE-TAKING		SCIENCE REFERENCE		LANGUAGE UNIT			RAPID READING		TUTORIAL PRIVATE STUDY ASSIGNMENT
1	18/11/78 −22/11/78	SA 102/1	Effect of heat on substances	D 102/1	Heat	L 102/1	Chemical reactions I	SR 102/1	Phase II Information	LU 102/1-2	Chemical equations		Rate builder Rose Level	T102/1A T102/1B T102/1C T102/1D T102/1E	Report-writing Worksheets 1-4 Conduction (Lecture)
2	25/11/78 −29/11/78	SA 102/2	Separation of mixtures & compounds	D 102/2	*Mixtures* & compounds	L 102/2	*Chemical* reactions II		from 'O' Level Texts		Chemical equations (cont)			T 102/2A 102/2B	Method worksheet Chemical reactions (Lecture)
3	2/12/78 −6/12/78	SA 102/3	To measure the rate of a reaction	D 102/3	Chemical reactions	L 102/3	Periodic table		Phase II (cont)	LU 102/3-4	Periodic table				
4	9/12/78 −13/12/78	SA 102/4	Recovery of pure water	D 102/4	Periodic table	L 102/4	Distillation		Phase II Information extraction		Periodic table (cont)				
5	16/12/78 −20/12/78	SA 102/5	Flame tests and use of spectroscope	D 102/5	Spectra	L 102/5	Bonding		from College texts	LU 102/5-6	Chemical bonding			T 102/5A T 102/5B	Atoms & molecules worksheet History of atom (Lecture)
6	23/12/78 −27/12/78	SA 102/6	Burning and breathing -limewater	D 102/6	Bonding	L 102/6	Oxidation/ reduction		Phase II (cont)		Chemical bonding			T 102/6A	Structure the nucleus (Lecture)
7	30/12/78 −3/1/79	SA 102/1A	Rusting	Revision for mid-term exams											

8	1/1/79 –10/1/79	SA 102/2A	Conduction of electricity in liquids & solutions			Mid-term exams								
9	13/1/79 –17/1/79	SA 102/7	Use of pii meter	D 102/7	Acids & Alkalis	L 102/7	Mole Concept	SR 102/2	Phase III Assignment writing I	LU 102/78	Electrolysis		T 102/9A	Electrolysis worksheet I
10	20/1/79 –24/1/79	SA 102/8	Electropiating	D 102/8	Electrolysis	L 102/8	Electroplating		Phase III (cont)		Electrolysis (cont)		T 102/10A	Electrolysis worksheet II
11	27/1/79 –31/1/79	SA 102/9	Temperature dependence of HC1/Thio reaction	D 102/9	Temperature dependence	L 102/9	Mechanics		Phase III (cont)	LU 102/9-10	Vectors		T 102/11A T 102/11B	Electrolysis worksheet III Force worksheet
12	3/2/79 –7/2/79	SA 102/10	Motion of a trolley on an inclined track	D 102/10	Rocket propulsion	L 102/10	Vectors		Phase III (cont)		Vectors (cont)	Ratebuilder Gold Level	T 102/12A 102/12B	Vectors Worksheet I Friction Worksheet
13	10/2/79 –14/2/79	SA 102/11	Heat & work	D 102/11	Calculus	L 102/11	Heat & work		Phase III (cont)	LU 102/11-12	Rates of change	(Average rate)	T102/13A T102/13B T102/13C	Electrical circuits STP Rates of change worksheet Heat & work (Lecture)
14	17/2/79 –21/2/79	SA 102/12	To plot lines of magnetic force	D 102/12	Electromagnetism	L 102/12	Magnetic field of the earth		Phase III (cont)		Rates of change (cont)		T102/14A T102/14B T102/14C	Report-writing worksheet Static electricity STP Static electricity worksheet
15	24/2/79 –28/2/79	SA 103/3A	Making Hydrogen			Revision for Final exams							T102/14E	Electromagnetism (Lecture)

TABLE 3 **ENGLISH LANGUAGE CENTRE ENGINEERING: COURSE CSE 103E**
FALL SEMESTER 1978 — 79

WEEK	DATES	COURSE COMPONENT									
		SCIENCE ACTIVITY		DISCUSSION		LECTURE NOTE-TAKING		SCIENCE REFERENCE		TUTORIAL PRIVATE STUDY ASSIGNMENT	
1	18/11/78 –22/11/78	SA 103/1	Bending of a beam	D 103/1	Bridges of concrete	L 103/1	Stress & Strain	SR 103/1		T 103/1A T 103/1B	Concrete worksheet Stress & Strain worksheet
2	25/11/78 –29/11/78	SA 103/2	Acceleration due to gravity	D 103/2	Mass & weight	L 103/2	Gravity		Phase III (cont)	T 103/2A	Falling bodies worksheet
3	2/12/78 –6/12/78	SA 103/3	Weight of a metre rule	D 103/3	Circular motion	L 103/3	Circular motion		Phase III (cont)	T 103/3A	Movement of the earth
4	9/12/78 –13/12/78	SA 103/4	Pulley system	D 103/4	The Lever	L 103/4	Machines		Phase III (cont)	T 103/4A T 103/4B	Levers worksheet Machines worksheet
5	16/12/78 –20/12/78	SA 103/5	Pinhole camera	D 103/5	The Nature of light	L 103/5	Velocity of Light		Phase III (cont)	T103/5A T103/5B T103/5C	Levers worksheet Reflection worksheet Dispersion worksheet
6	23/12/78 –22/12/78	SA 103/6	To programme a calculator	D 103/6	Computer Languages	L 103/6	Computer Circuit Logic		Phase III (cont)	T103/6A	Report-Writing Worksheet
7	30/12/78 –3/1/79	SA 103/1A	Ray of light passing through glass block	Revision for mid-term exams							

8	6/1/79 –10/1/79	SA 103/2A	Nuclear Energy			Mid-term exams					
9	13/1/79 –17/1/79		Solar Energy Project					SR 103/2	Phase III Assignment		
10	20/1/79 –24/1/79								Writing III Phase III (cont)		
11	27/1/79 –3/1/79										
12	3/2/79 –7/2/79										
13	10/2/79 –14/2/79										
14	17/2/79 -21/2/79										
15	24/2/79 -28/2/79	SA 103/3A	Semi-conductors				Final exams				

TABLE 4

Assessment Scale-Science Activities

BAND	COMPETENCE DESCRIPTION	PERFORMANCE DESCRIPTION
9	Able to define and direct a full investigation of a problem. Able to produce a critical paper on the investigation, incorporating work of others.	
8	Able to design means of investigating a specified problem and produce a full critical report.	
7	Able to carry out an independent investigation of a problem likely to be encountered during first year university course. Can produce a full report on investigation with minimum supervision.	
6	Able to follow a prescribed line of investigation of a limited divergent problem using predetermined means. Able to discuss problem with others, decide data to be recorded and write a full report on investigation, with assistance. Can draw limited critical conclusions and make suggestions for further work.	As represented by successful completion of the 103 programme. The solar Energy Project.
5	No problem in following instructions leading to a convergent investigation. Can collect, record, discuss and process data and write a full formal report on the investigation making appropriate conclusions. No significant errors.	As represented by the end of the 102 programme.
4	Able to follow most of a series of instructions leading to a convergent investigation. Can collect and record data and do some processing (eg graph work). Able to write a formal report with some language guidance but has very limited ability to draw conclusions from data. Relatively few language errors.	
3	Can follow some instructions, with supervision, and carry out a simple convergent investigation. Able to collect and record simple data. Knows structure of a report and can complete a formal guided report given sufficient language props. Still likely to make language errors.	As represented by the end of the 101 programme
2	Requires close supervision and constant linguistic and practical help in carrying out instructions leading to a simple investigation. Considerable pre-activity priming needed. Has difficulty in extracting and recording data. Able to complete minor parts of a guided report.	
1	Can follow very few, if any, instructions. Unable to extract or record data or complete any part of a report.	

TABLE 5

ENGINEERING FALL INTAKE 1978

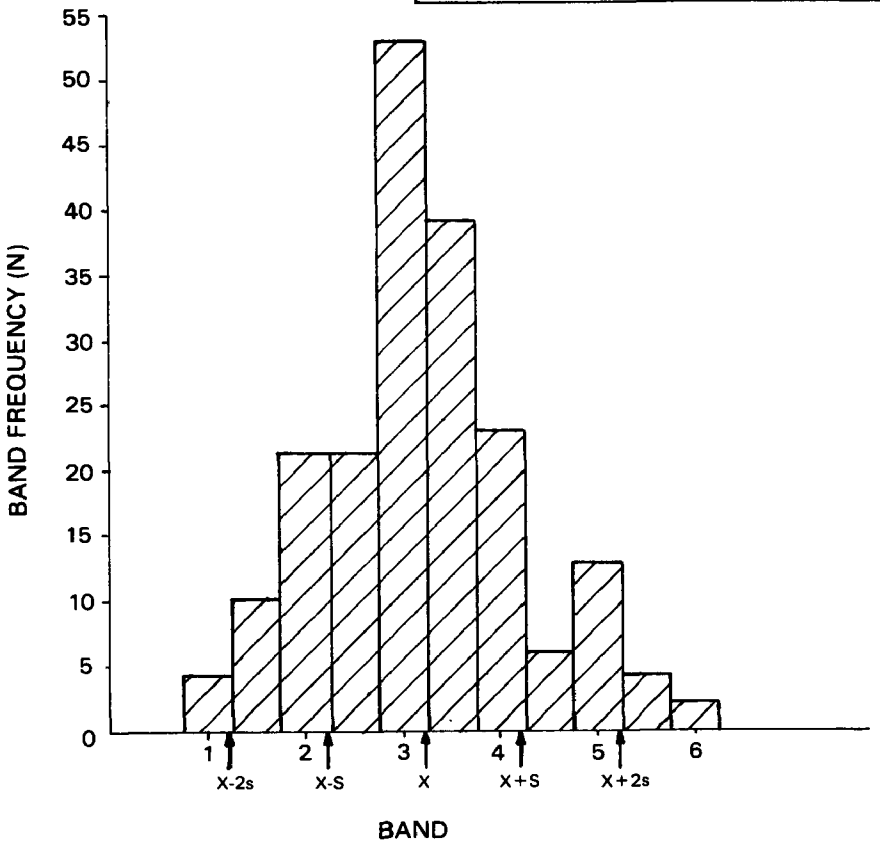
HISTOGRAM SHOWING BAND FREQUENCY AGAINST BAND

MEAN	= 3.2
STANDARD DEVIATION	= 1.0

68% LIE WITHIN ONE BAND OF 3.2

96% LIE WITHIN TWO BANDS OF 3.2

(assuming normal distribution)



THE TUNISIAN TEXTBOOK PROJECT 1969–1977:
Problems affecting materials production

Pablo Foster, Scottish Adult Literacy Unit

The Project began in 1968 with a request from the Ministry of Education in Tunis (GOT) for help in producing a new English Language Course for the State Secondary Schools. The request was made through the British Council (BC) to the Ministry of Overseas Development (ODM), and simultaneously to the American Ford Foundation (FF). Since at that time there was a sympathetic climate for projects related to language planning, curriculum development, low-cost textbooks and multi-national collaboration, the request was met with remarkable alacrity.

By early 1969 a British Council specialist had visited Tunis and recommended that a joint FF*, BC*, ODM* and GOT* project be launched in time to cope with GOT plans for making language teaching more efficient by cutting down on hours spent learning foreign languages! The Textbook Project was to provide a four-level course, comprising pupils' books, teachers' books and audio-visual aids. It was to last five years, involve one American (as Project Leader), one Briton and one Tunisian (as Coordinator and Advisor). By October 1969 the Project was under way, with a further Briton promised. The treadmill had started. When it stopped, eight years later, **two** complete courses had been written and published, two Britons had been added to the original team, four publishers had been involved and one sponsor, FF, had lost interest in low-cost textbooks and abandoned its overworked Project Leader in 1975.

The Project's publications ran as follows:

First Series:	**A Course in Current English**
Authors:	G Aspden, B E Foster, A Gmar, R M Payne
Publishers:	Societé Tunisienne de Diffusion, Tunis. (Books 1 and 3 jointly with Oxford University Press)
Dates:	Pupils' book 1 1970. Second edition 1973. Teachers' book 1 1970. Second edition 1973. Tapes and Tests, Level 1 1971. Pupils' book 2 and Teachers' book 2 1971. Wallcharts 1971. *Conversation Guide* 1972. Tapes, Level 2 1973. Supplementary Reader 1973. Pupils' book 3 and Teachers' book 3 1972/3. Tapes Level 3 and Supplementary, Reader 1973 Pupils' book 4 (draft only) and pilot tapes 1974.

Second Series:	**English for Modern Life**
Authors:	G Aspden, B E Foster, R M Payne, D R Sweetman.
Publishers:	Centre Nationale Pédagogique, Tunis, jointly with BC Publications Department.
Dates:	Pupils' book 1 and Teachers' book 1 1976., Pupils' books 2, 3 and 4, and Teachers' books 2, 3 and 4 1977. Wallcharts and Tapes, Levels 1—4 1977/8.

As might be surmised from the above timetable and the added information that three teacher-training courses were held each year, the word 'treadmill' was used advisedly. Our main problems throughout were the timetable and workloads, and the pressure from recurrent deadlines. However, since these problems were not unique to the Tunisian Textbook Project, I shall concentrate upon the effects of two other types of problem: those resulting from the Project's setting and those arising from within the Team.

Problems resulting from the setting could be further sub-divided into administrative problems, socio-linguistic problems and pedagogic problems. Those arising from the Team might be divided into problems related to the constitution of the Team, and those reflecting philosophy and faith.

The Project's setting in the late sixties meant that its launching coincided with a period of donor optimism, aid expansion and economic well-being. Its lasting eight years meant that it had to go through recession and the inevitable scrutiny as to whether it was worth completing. To the ODM's and BC's credit, they saw the Project through. The Tunisian Ministry of Education, however, never once swerved in supporting a Project which, though only one among 232 others, must have seemed to be vying with *Coronation Street* for longevity.

Administration problems

Because there were three sponsors, and no supremo, it was perhaps inevitable that the writing team was buffeted by different expectations. The Tunisians naturally wanted materials that reflected their milieu and socio-linguistic background, and they wanted a coursebook manuscript within nine months of Project commencement, in order to meet changes in the Secondary curriculum. This precluded any lengthy research into

specifically Tunisian learning problems and imposed a writing schedule on the Team that never relented. The foreign sponsors, by contrast, were interested in materials that might be generalised to other Arabic/French speaking countries, and publishers expressing any interest in the textbooks were similarly hopeful. As a result, the authors were unable to take full advantage, in the first series, of the advantages of writing for a homogeneous audience. When it was finally recognised that the larger audience was a desert mirage the Team were able to reflect Tunisian life, aspirations, problems, communicative needs — even humour — with a faith the students found motivating.

Further results of the tri-partite sponsorship were different terms of hire and the triple scale of rewards for Project members. The foreign-sponsored authors, though themselves subject to sizeable differentials, were considerably better paid than the host-country Team member and hence thought it no great loss to sign away their claims to royalties. The lengthy haggling over eventual claims to copyright between sponsors and publishers might have been averted, and the Project shortened if the question of comparable remuneration for the host country member had been settled at the outset. Hence, because of administrative problems the original Team composition could not be maintained, and the Team did not enjoy as great a Tunisian contribution as it might have done.

A consequence of this was that access to schools, in order to pilot the materials, was temporarily difficult. The authors could not teach the materials themselves at the secondary level for which they were written and so worked at one removed, as it were, from the teaching process that turned the materials into learning experiences. We attempted to get round the problem by teaching in evening classes, to adults or 'false beginners' but we were never able to forget this was a substitute. The situation eventually improved, but not before seriously inhibiting the teachability of the early materials.

A further consequence of the copyright issue was that the senior publisher for the first series eventually lost interest, and for two years no course **books** were published. The second book in the first series was virtually hand-set by the authors, with all phonetic symbols being drawn on the final film, along with many of the illustrations. Writing was constantly interrupted by the need for the authors to learn new skills, like how to adapt French founts of type to the needs of English, or how to do copy-editing in Arabic. Inevitably the original time ran out. Only a superhuman effort by the BC Publications Department got the final series of books into the schools in time.

One last administrative problem was a consequence of the sponsors miscalculating the time and effort that would be required to run teacher-

trainng programmes. Because this was not adequately anticipated, two of the authors finished the Project with 120 days leave each and chronic fatigue. Materials writing requires regular periods of convalescence, otherwise the quality suffers, along with the length.

Socio-linguistic problems

Unfortunately, a socio-linguistic survey of Tunisia, such as those for Jordan and Algeria, did not exist. Nor, when the Project began, did an ELT Profile. Needs surveys were still at the research stage, and the original Team had time only to prepare a questionnaire and circulate it among practising teachers before the serious business of textbook writing began. Hence, the earliest books were written in the light of current theory and on the basis of advice from the Tunisian Inspectorate. Though contrastive analysis was frequently invoked, as a fashionable deity, there was no time to explore the influence of Tunisian Arabic, School Standard Arabic or French upon the learning of English. In the early days we did not realise that competence in French deteriorated almost in direct proportion to distance from a major town, and that French still played a major role in determining who succeeded in staying in the Secondary system. Nor did we fully realise that the ones who survived to commence learning English were there because they were successful at learning foreign languages, and hence needed a steeper syllabus than we had prepared. Only gradually did we learn the roles that English usefully served in Tunisian policy and social life: that, for example, it was worth offering a route (through the first two levels of our materials) which emphasised oral skills, because employment prospects for the drop-outs were considerably improved in the tourist sector if they had some competence in speaking English.

Accordingly, we had to identify who we were producing materials for, and eventually settled for five, cross-cutting categories:

1 Tunisois or provincial, since this broadly influenced wealth, level of sophistication, access to books and learning resources;

2 Boys or girls, since this influenced interests, attitudes, motivation and levels of attainment, opportunities for discussion, level of drop-out;

3 In contact with English-speaking foreigners, since this influenced their chances of practising English with native-speakers or using them as a learning resource;

4 Frequently absent, slow-learning or home-based, since this affected the amount of explanatory material we had to offer, and the steepness of the 'incline' the materials followed.

5 Repeating a year, since nothing was less motivating than re-covering exactly the same material with peers who were your juniors.

In order to satisfy their different requirements we incorporated a large body of optional materials in the final series, but were never able to solve satisfactorily the problems of indicating alternative routes through the corpus. The categories were not fully optional and individuals were not always easily accommodated. In any case, educational changes imposed the need for new categories.

Pedagogic problems

The earliest pedagogic problems were those concerned with interpreting the official syllabus in terms that would satisfy all parties concerned — the Inspectors, the teachers, Ministry officials and the Team. However, this lengthy issue is covered in the ODMs Project Evaluation Report. The next major group of pedagogic problems therefore were those relating to teacher training and traditional, indigenous styles of teaching which are closely meshed with patterns of permissible relationships within a culture. The over-learning and memorising techniques that were fashionable for learners in the sixties were conducive to authoritarian-type teaching styles — precisely the traditional styles that the young Tunisian teachers were trying to give up. In addition, when directive teaching was allied with constant oral repetition, there were strong reactions from school administrators and Heads. Thus, the major teaching style of the sixties, then projected as modern and 'scientific', was objected to by widely different groups as reminiscent of traditional *kutteb* or Koranic school methodology. There was little doubt that most students possessed very efficient short-term and long-term memories, so it would have been unwise not to have capitalised on such skills for language learning. We therefore tried to aim for memorisation of core material by presenting it in various forms and rehearsing it through varied activities, a solution which satisfied both 'traditionalists' and 'modernists' alike. Such a solution, however, does increase the materials writer's load.

The early seventies school system, whereby learners who failed the annual exams were allowed to repeat a class two or three times, imposed enormous strains on teachers. Problems of motivation and discipline always seemed to focus on the repeaters, and our contribution was to try and offer optional, alternative materials and group teaching techniques. Again, the solution tended to increase the work-load for the Team, since additional materials had to be produced and interpolated in the ever-expanding coursebooks.

This solution of expanding the coursebook to meet new eventualities was invoked on two further occasions. About two years before the official close of the Project it was decided that the materials should attempt to satisfy the special needs of the Science options, as well as the Arts option. Rather late in the day, we had to thread through the last three levels specially written Science passages on topics related to the secondary syllabus. Unfortunately, there was no time to add suitably-geared exercise material, so the 'ESP bit' was never properly integrated into the course, and we missed the honours due to pioneers.

Our greatest problems came with the Ministry's later decision to expand English language teaching from a four-year course to an eventual six-year course. This was to be implemented in phases, so that the coursebooks had to serve whether students took four, five or six years to complete the course and irrespective of the number of hours of study that might be allocated in the future. Once more, optional material at a higher level of difficulty had to be built into the materials, so that teachers (who were already leap-frogging through the coursebooks) would eventually need to utilise all the material. The 'stretched version' of *English for Modern Life* had to lie dormant in the chrysalis of the standard version until the Ministry called it forth. By this time in their definitive form, the four coursebooks (with their core syllabus materials, reference matter, optional passages, Arts and Science sections, and thousands of photos and illustrations), totalled over one thousand pages, and there was serious doubt whether we would stay within our primary objective of producing **cheap** books at prices the poorest students could afford. Thanks to ODM aid and BC Publishing expertise, the whole series finally appeared costing about 60p each on the local market. (Anyone interested in adapting or quarrying the materials should write to the BC).

One final problem that arose out of the 'setting' might be mentioned: What do drop-outs from a course do, and should materials attempt to take cognizance of their plight? We tried to help those who dropped out after only two or three years of English by emphasising in the first two levels oral skills and a content that would help them interact with foreigners. Thus, they were able to seek employment in the rapidly growing tourist and 'services' sector. However, for those who were not able to practise their oral skills, the consequent weakness in reading may have meant that they lost their abilities within two or three years of leaving school. The whole question of tourism and its impact upon a small country like Tunisia poses many problems for the materials developer. Just as tourism may skew economic development, so it may influence the balance of language skills taught, and the solutions chosen may give later cause for unease.

Problems arising from within the Team

Some readers may have persevered this far in the hope that this section will reveal all, and that a sordid history of conflict, skull-duggery and wife-swapping will be finally made public. Yet, given that the Team members were simply allocated to the Project by their sponsors, and worked in very close proximity for several years under continuous pressure, professional and personal relations within the Project were surprisingly friendly and harmonious. The problems dealt with here are those peculiar to aid-and-development anywhere, and arise partly as a result of the way experts are treated and the way they behave.

Team constitution

Considering the Project was initially required to develop materials for the Tunisian milieu and eventually became deeply involved in 're-tooling' ELT in Tunisia, the Team's imbalance was heavily in favour of the expatriate members. Once the original host-country member had withdrawn, incorporating enough Tunisian expertise was a problem, since in an expanding educational system no-one was sufficiently 'spare' to be allocated full-time to materials development. With a little more clairvoyance our sponsors might have helped several likely candidates to be seconded abroad and trained for the day when they would come back and replace us. (Materials development should be seen more as continuous process than as sets of coursebook products). As it was, the load had to be taken up by already over-worked Inspectors. They were never adequately remunerated for the time devoted to the Project, yet without them the Team would have been dangerously insulated from the classroom 'workface'. It says much for their dedication and tolerance that when the quilted expatriates departed, the Inspectors took up the role of materials development without resentment or complaint. However, it is vital for writers to be properly integrated into official structures, so that they can mesh with educational developments *in toto*, and not just produce materials offering linguistic diversion and amusing activities.

Problems arising from 'philosophy and faith'

Professionals can do appalling things for the best of motives. In the way that architects and planners in the fifties and sixties cheerfully herded whole communities into high-rise blocks, because the planners believed towers were **the** solution, so materials writers often reduced learners to automatons and drilled them choral-fashion in the belief that was the **only way** to learn. There is a strong element of 'discipleship' in most professions, and textbook writing is not exempt. In the sixties, lines could

have been drawn between the behaviourists and the 'innatists', between the structuralists and the situationalists, between the rigorous jargonists and the eclectic pragmatists. This is possibly because we need stimulation and are therefore distracted by what is recent rather than influenced by history, which shows that very little is new in materials writing and that the same ideas are constantly being recycled.

When professional fervency is combined with the kind of licence 'expertise' was generally granted in aid and development, (where experts are presumed to know what is best for learners and learners are only consulted when feedback is required to vindicate what has already been decided ....) then problems can arise which may take years to resolve. Because the Project design influences so many things for so many years ahead, and quickly sets up its own orthodoxy, extra care must be taken to ensure that it is as humane, as flexible and as consultative as possible. The temptation to evangelicise on behalf of a linguistic or methodological creed should be resisted, since the odds are that present faith will be undermined by subsequent research.

A further problem for a Team working long and hard in relative isolation is that they feel themselves slipping out of touch with 'main-stream' developments. Over a period of several years there will be occasional breakthroughs in theory, possible changes in practice and the inevitable waves of fashionable jargon that you may be tempted to explore in the hope they may solve one of your field problems. During our Project we were keen to find out more about notional, functional and communicative syllabuses, ESP, discourse analysis and classroom interaction, learning counselling, the Silent Way and Suggestopaedia. Every year there was some anxiety-creating development that, on first glance, tempted us to scrap everything and start again, or make some hurried provision for in our materials. Yet it is very dangerous to commit yourself to a far-reaching change without solid evidence of how it really works in the classroom situation with **your** students. It may be more profitable, if you have got the initial design right, to keep consulting away with your teachers and learners, in the hope that you will get things right for them, irrespective of whether it satisfies publishers with an eye on global markets, or pundits who thrive on change and staying terminologically out of reach.

Your ultimate judges will be the learners and teachers who have to use your books year in, year out. They will assess every word you write, every illustration you supply, every activity you suggest. The problems involved in satisfying them will probably be the most rewarding to solve.

Even though the brief for this article was to write about problems encountered, it is perhaps worth emphasising that it pays to be 'solution

oriented', since problems will be legion. One strategy worth considering is, first, to assemble your problems in a list, decide on priorities among the problems, and then look for comprehensive solutions that will solve most problems at the top of your list. This may seem a trite conclusion, but it could save you energy, time and a lot of sleep. For a broader survey of the full spectrum of problems that might be encountered in materials development, see the ODM Evaluation (Stage A) *Tunisian Textbook Project,* 1969-1977, particularly Annexe C.

COMMON SENSE and ESP:
An Industrial Language Training Project
M A Smith, PT Arun, Plaju, South Sumatra, Indonesia

Acknowledgement

I have a great conceptual debt to Mr T Jupp who presented me with a planning strategy and methodology for our industrial language training programme, both in his and Susan Hodlin's book *Industrial English* and through his visit to the training project for an in-service training workshop in May 1977.

Background

PT Arun is an Indonesian company established by the state oil company, Pertamina, to operate a natural gas liquefaction plant presently under construction in Northern Sumatra. It is fifty-five percent owned by Peramina, thirty percent by Mobil and fifteen percent by Jilco — which represents the Japanese interests.

Natural gas liquefaction is a process which has been developed for use on a large scale only recently, largely for economic reasons as energy prices have risen. Previously, gas was only transported in vapor form by pipeline, but natural gas liquefaction allows the gas to be reduced in volume by a factor of about 600 and to be transported across large distances in specially built tankers to any market in the world.

Because the process necessitates sophisticated industrial plant and because Indonesia is in the early stages of industrial development PT Arun is undertaking an ambitious training programme for the Indonesian staff who will operate the LNG plant.

This was the background for the selection of the first group of Acehnese trainees. Advertisements were placed on the radio and in the Press for applicants to the training programme. The main areas of recruitment were the high schools and the technical high schools in Aceh and the plant construction workforce. All applicants performed an American Employment Aptitude test (administered in Indonesian) and underwent a traditional personnel selection interview. The norms for acceptance were comparable with junior engineers in the United States. Seventy-seven trainees were selected after further medical and security screening. This selection process basically followed that used by Mobil in the selection of field operator trainees.

We were asked if it would be possible to take the trainees to the point where they would be able to follow an English-medium basic scientific and

technical programme after six months, assuming their active knowledge of English would be negligible on arrival. This seemed an ambitious but not impossible target given the right facilities and staff. The second objective was to prepare them for the communication needs at the workplace. The task of preparing the trainees for their further technical training appeared to be the most difficult.

The location for the language training was to be in Southern Sumatra in a Pertamina refinery as plant site complex training facilities were not ready when the trainees were available to begin the programme.

Thus we had a situation where skilled immigrants were coming to work in Indonesian industry and the Indonesian workforce was being trained in English. The question obviously arises, why didn't the foreigners learn Indonesian rather than the Indonesians learn English?

There are several parts to the answer to this question. Firstly, English is widely acknowledged as the international medium of technical exchange (nearly all the terms peculiar to the LNG plant are of American or English origin). Secondly, almost all the expertise available on the LNG process is held by English speakers. Thirdly, most Indonesians want to learn English but most technical experts coming to work in Indonesia make little more than a token effort to learn some Indonesian for social purposes. (This generalization is rather unfair as an informal survey of expatriates recently showed a high motivation to learn Indonesian in quite a good proportion of the workforce. But it is still the general expectation that the Indonesian workforce is expected to learn more English than the expatriates Indonesian). The reason for this difference in motivation is that it presently appears more useful professionally for an Indonesian to be able to speak fluent English than for an English speaker to speak Indonesian. English ability opens up dreams of foreign travel, promotion and prestige in Indonesia. Finally, foreigners coming to work in the plant were given an introductory programme in Indonesian. (It was hoped that a useful side effect of this language training would be that someone who has been on the receiving end, as it were, of a foreign language training programme would be more likely to be sympathetic to communication problems he experiences with the Indonesian workforce).

The foreigners coming to work at the plant do so on a temporary guest status. This means that their technical expertise has to be passed on to the Indonesian workforce who will operate the plant during most of its lifetime. The need for English-medium technical training and therefore technical English language training becomes apparent. (Even after the expatriates leave almost all the written references will be in English).

During the crucial start-up operation of the plant the expatriates will play an important supervisor/training role. It is essential that the Indonesian workforce can absorb the plant expertise of the expatriates during this period. The language of this on-the-job training will also be English.

Thus the broad needs are twofold: English for more theoretical classroom basic technical and scientific training — but only as appropriate to operating needs of the plant — and, secondly, language needed for the workplace and on-the-job training.

This was the background information we had before the training programme began. More detailed data, such as precise job descriptions of the trainees, was not available. But we had something to start with.

Training Philosophy

The three main aspects of our training philosophy were that:

1 All the language material used in the programme should be as closely related to training and plantsite communication needs as possible.

2 All the language training material used should have as high a communication value as possible.

3 The technical, educational and language elements of the programme were to form an integrated whole.

None of these aims was simple to achieve in practice. Firstly, it was difficult to determine exact plant communication needs as the plant was at an early stage in construction when the programme started.[1] Complete data in areas such as:

1 Eventual job description of trainees
2 Description of their working environment
3 Detailed personnel and training policies

were simply not available. This meant it was not possible to design the material to fit the plantsite needs as closely as we would have liked. However, all the material used in the first few months was specially produced for the needs of the trainees and the company and no published material was used during that period. The material we produced sometimes lacked in polish but

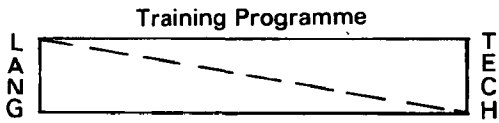
[1]A recent data collection visit to the plant (part of which is now in operation) with camera and tape recorder proved invaluable for more precise determination of needs. (See also 'Starting a New Industrial Language Training Project: Personal Impressions and Experiences' by Susan Hodlin with Celia Roberts, National Centre for Industrial Language Training, Southall, London, May 1975)

gained in appropriateness. This in turn improved both staff and trainee motivation. The staff were involved in a creative, dynamic process, using material which was entirely new to them in content and, as often as not, in methodology.

The second item, that the training material used should have as high a communicational content as possible, means very simply that we tried to give the trainees something to talk about which they wanted to talk about (eg their job at the plant). Much language training material (especially the 'What am I doing?' 'I am walking up and down' variety) does not actually contain any information. This means that many of the examples used are of a very peculiar use of language ie language which 'says' nothing so that it can conform to a neat linguistic pattern. We tried to devise material which ensured there was a real information transfer between teacher and trainee or between trainees wherever possible.

None of this is saying anything new in terms of training generally. It is accepted practice to start from the target situation and design the curriculum around the gap between the present abilities of the target trainees and the needs of the situation in which they will find themselves at the end of the training programme. It is nothing but a common sense approach. With this in mind, it is very surprising that there are not more language training programmes which are systematically built — almost sentence by sentence — around the uses to which the language will be eventually put at the end of the programme. The field still seems dominated by linear syllabuses of increasing structural complexity or modified technical reading material. This may be because language training has traditionally formed part of a classical or liberal education where the language is learnt largely for its own sake, for an exercising of analytical abilities, or for the sake of easier inter-cultural access.

The integration of the technical educational and language elements meant there was a great need for very close cooperation between language and technical training staff. The whole training programme could be seen as a rectangle, divided diagonally by a dotted line viz:



Initially, the bulk of the training was concerned with establishing language ability — but language ability as defined by technical training and plant site needs. As time went on the amount of technical information contained in the material increased until it formed the bulk of the training material. The distinction between the two elements was always deliberately blurred so that the language material would benefit from technical expertise and

information and, as the role of the technical training staff moved from an indirect to a direct one, that the language staff could continue to exercise control over language complexity and provide guidance in classroom methodology. Obviously such an approach called for a great deal of flexibility and mutual understanding. We were fortunate in obtaining this. We were and still are of the opinion that this is the most economic and effective way to organize a technical/language programme.

Because we were able to have close and informal discussions with the technical training staff we were able to determine the general areas of technical training which would follow and the depth within those areas to which we should prepare the trainees' language skills.

We might look at two examples of this kind of technical/language integration. One attitude we wished to focus on from the beginning was safety consciousness. One of the structures the trainees had to become proficient in was the use of the simple past. What we did was elicit case histories of accidents which the trainees had personally been involved in and ask questions in the simple past ('What, How, Who, When... was/did ...ed?') and feed the most illustrative of the histories thus collected into the training material and the trainee newspaper. In terms of structure they thus became familiar with the use of the past simple and in terms of being an employee in a dangerous industry they analysed real histories of accidents and their causes before going on to more formal safety training.

A further example. One of the language structures the trainees would have to become skilled in using, particularly for the description of process, is the present passive simple. (It might be noted at this point that the approach we adopted does not imply a total rejection of structural grading. We rather focused on the target situation and the subject content of the material but structural grading is still essential initially. The first fifty hours or so of any organized language programme will probably teach more or less the same language structures whatever the overall philosophical approach). We asked the technical training staff to provide us with a very simple process diagram of the plant (Appendix I). Part of the diagram was labelled 'Separation'. 'Here the vapour is separated from the condensate'. Thus through the major processes in the plant — using examples of the passive present simple and telling the trainees something they really wanted to know about — the plant they were going to work in. This method gives the language a meaningful use, even at a fairly elementary level. It should be remembered the language learning in the elementary stages is basically an intellectually humiliating business. It is no use discussing the pros and cons of the past form of the verb to go — you have to 'stop thinking' and learn. But if the examples are chosen well enough, then this aspect of language learning is minimized, even for adult learners. (The adults own learning strategies should also be taken into account).

This integrated approach was successful for the first two hundred hours or so of the programme. After that point it began to be almost impossible to combine structural items with technical information. As the strands in the programme became increasingly complex, so they tended to separate. It is possible, however, that with greater time and expertise we could have continued to use this integrated approach successfully. In practice, as the material became more complex it required a far greater preparation time. To overcome this problem, we had to use published material in the transition period, before the technical staff could prepare the bulk of the material.

One further aspect of the training philosophy we adopted throughout the programme was to use performance rather than time as a limiting factor. The material was taught in units rather than weeks. As soon as the teacher concerned was satisfied with the language performance in a particular area, then he moved on to the next item. (This, naturally, was within the frame of an estimate of time required). Thus a unit could in practice require anywhere between 15 and 40 contact hours, though most took about 30.

In summary then, the basic guiding principles we adopted as training policy in producing the material were that the material should be as closely related to plant site and training needs as possible — in other words that the trainees would be given 'something to talk about' while learning the language; and that the technical, educational and language elements were to be integrated wherever possible.

This overall philosophy was allowed to interact with the continuous feedback from the teaching staff, the trainees and the management of PT Arun as the programme developed. Various problems arose in practice, but on the whole the philosophy proved very effective in terms of fulfilment of PT Arun's expectations and the rapid progress of the trainees' communicational ability. (We did find that a large gap appears to exist between communicational ability — which is difficult to measure reliably — and the ability to perform well on a traditional multiple choice 'recognition' test). The English-medium technical training began to take over the bulk of contact hours without any appreciable communication problems after just over six months. Our first objective — and probably the most difficult one — was fulfilled. The real test of the philosophy — the on-the-job communication performance of the trainees — will only be measured after their transfer to plant site.

Problems which arose in practice

The trainees arrived on 13 October 1976. From then until May 1977 they were in language training at an average rate of just over thirty hours per

week. (In May there was a two week break in the programme for trainee and staff vacation and an in-service staff training workshop headed by Mr Tom Jupp). After the vacation the bulk of the training material was directly prepared by the technical training staff, with assistance from the language staff.

When they arrived the vast majority of the trainees could not tell you their date of birth. By June they were able to participate actively in an English-medium technical training programme with almost no assistance from the language staff or simplification of the language. They could also tell you quite a lot about the LNG plant and how to behave in an engineering workshop — in English.

In September 1976 five members of staff arrived. At that time the training centre was not much more than a bare set of walls and with no administrative infrastructure to help us. This was three weeks before the programme was due to start. We did manage to hire administrative staff, obtain reproduction equipment and have the centre cleared up before the arrival of the trainees.

Understaffing

The first problem we ran into was understaffing. (The total number of contact hours was more than 150 per week). After the first two weeks the five staff we did have were totally exhausted and so we made rapid moves to recruit via the national dailies and a network of contacts in the British Council, ex-volunteers and the best Indonesian universities and teacher training colleges. We had a staff of eight within a month.

Material production

We had determined that no books would be used in the classroom for the first two months or so of the programme in order that the material would be as appropriate as we could make it. This meant that the material had to be written at the speed at which it was taught ie we had to produce more than thirty hours teaching material per week. The only way we could solve this problem eventually was to use selected published materials to supplement the material after the first two months. (We had obtained what appeared to be the most appropriate material while in London). This method of material production also had the disadvantage that staff training had to be rather neglected because of restraints on time.

Specialization

In the early days of the programme it was fairly easy for the staff to use any of the material with the preparation time available. However, as both

language and technical content increased in complexity, it became necessary that the language staff specialized in teaching different areas of the material while still having a fair knowledge of what everyone else was teaching. We tried to enable staff to choose the area of specialization, whilst avoiding the other extreme of each teacher teaching the same subject matter five times in five different groups.

Oral production

One of the ideas behind not allowing books into the classroom initially was to offset the emphasis on written, descriptive language training received in the Indonesian high school in favour of actival oral communication with and between the trainees. In their training and work, the greatest demands on their language ability are likely to be in the area of oral comprehension and production.

As we began to use published material, however, we came up against the problem that most of the material available was basically adapted technical reading material. (Some of the trainees would also have to be able to reach technical manuals — currently being composed — so this was not altogether bad). Restraints on time demanded that we used published material, though 'adaptation' not adoption was the policy we attempted to follow. Even so, we never really surmounted the problem of the 'Open your books on page forty-two ....' approach, which somewhat damaged trainee motivation. This was partly due to the fact that the material was by now of moderate technical difficulty and so staff and trainees felt more secure in relying heavily on the printed page.

We did, however, employ a variety of means to circumvent this problem. Firstly, I reminded staff that their primary goal was to establish communicational fluency — not the distribution of technical information. Secondly, we stepped up technical orientation given by the technical training staff to the language staff and began Technical Forums for the trainees where they could ask their technical questions directly to the technical staff (a good communication exercise). All this helped appreciably but still represented an operating compromise on our original commitment to not using any published material at all. Given more time and more technical staff to assist in language staff orientation and material preparation, the problem would have been overcome.

Lesson preparation

By the fourth month we were running a programme comprising of language training in the areas of:

1 Plant Processes (Physics, Chemistry)

2 Workshop Practice

3 Safety & First Aid (with assistance from the local hospital)

4 Crosscultural factors

As the programme was developing at such a rapid rate staff found it difficult to determine medium term direction and sometimes — in a material production crisis — even to determine what they would do the next day. If greater care had been taken in assigning staff to specialized subject areas and there had been more time for material preparation this problem would have been minimized.

Assessment

Assessment proved a thorny problem, as usual. As the programme was designed with a view to establishing communicational fluency in the technical training programme and at the work place I suggested that the only meaningful assessment would be the trainees' communicational performance in the technical training programme and at the work place. This would not solve the problem of the need for a 'systems check' during the programme (ie an in-house assessment which would give some indication of the effectiveness of the material and the teaching methods). The first attempt at assessment took the form of a carefully controlled interview in the first few days of the programme beginning with questions such as 'Can you tell me your name please?' and moving towards more open ended questions about work experience and employment expectations. During the individual interviews, which were taped, the interviewer was asked to concentrate on obtaining the information. On listening to the tape afterwards he/she was asked to assess the communicational performance of the trainee, following a scoring guideline.

In practice, the tests proved too subjective to be reliable. Confusion in the scoring arose over answers to questions such as 'Have you worked before?'

1 'No'.

2 'Yes. I have ever worked in some jobs'.

Which response should receive a higher score? Should the first respondent be given full marks for a simple though effective answer, or should the second be penalized for structural errors which do not really detract from the communicational effectiveness? In the event, this particular exercise was a failure. Assessment of communicational effectiveness between two subjects by five different interviewers proved too subjective to be useful,

despite the guidelines. What we had to resort to eventually was a more traditional taped multiple choice assessment. While this proved more reliable and objective it failed to assess communicative ability. Results of this assessment showed a steady improvement in percentage of correct answers and a narrowing of the ability range.

Industrial v. academic approach

The major task involved in the programme had always seemed to me to be the bringing together of two very different approaches into an effective programme ie the industrial training and the academic educational approaches.

In our experience, the extreme academic end of the spectrum — if I may generalize — was characterized by a need for full information before action, thorough organization and a certain inability to adapt to rapidly changing needs, a tendency to insist on committing everything to paper, and a lack of the commercial sense of urgency; while the extreme end of the industrial spectrum tended to be characterized by a reluctance to commit proposals to a firm organised format, rapidly changing descriptions of needs, objectives defined in over-vague terms and a crude equation of learning hours and productivity. ('We want them in the classroom at least forty hours a week'). While this is so, it should be added that the considerable assistance from the technical training staff and understanding from higher management and the considerable freedom we were given in practice allowed a good measure of effective cooperation. What problems did arise could be generally overcome by compromise and diplomacy.

Staff development

From the beginning this type of programme was new to all the language staff in concept and methodology. The staff had had varying degrees of formal teacher training in TEFL (following the traditional structural approach) and varying amounts of experience (from no previous experience to more than twenty years teaching experience). But their previous experience and training had not prepared them for the functional, integrated approach we were following or the technical content of the material (though we tried to recruit people with some previous technical exposure, aptitude or teaching experience). This was countered to some degree by the fact that we tried to select young and flexible teachers. But, with careful monitoring of the degree of technical difficulty and considerable attention being paid to establishment of staff confidence in the new methods we were quite successful. By common consent even the general language level of the trainees was well above university level after

five months. All our assessment data showed rapid progress and a narrowing of the ability range. Even so, staff development must play a major role in this type of integrated programme. Perhaps our greatest problem was to persuade the teachers to move away from the structural approach towards a situation which concentrates rather on communicational performance than structural knowledge.

Conclusion

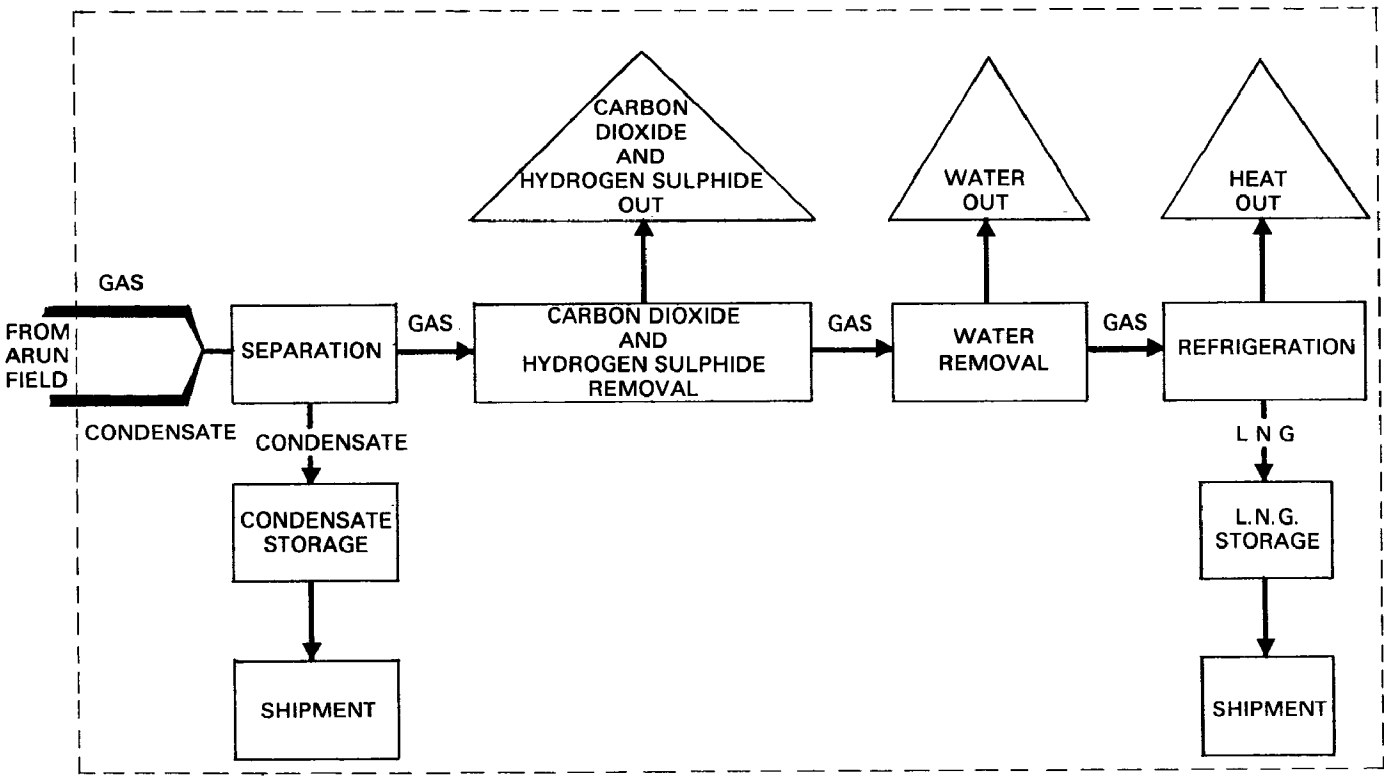
Overall, the programme — which was ambitious in its basic goals — ran into a considerable number of problems. Most organizational headaches would have been solved very simply by using published material en bloc. However, it was strongly felt that this would not have prepared the trainees for their training or their job. To organize a programme around a communication target situation is messy and demanding, but it was what was needed. This approach also seems to make much more sense than to organize the programme round a book — whose degree of usefulness is almost accidental — or a rigid structural progression, whose usefulness in communicational terms would be difficult to prove. Perhaps our greatest asset was the freedom to experiment and adapt without recourse to a vast educational beaurocracy.

In short, we found that language training is like most other activities — you get out not much more than the total amount you put in. If you put in a list of structures, you get out, (if you are very lucky) an ability to use those structures. If you put in a simulation of the training or work situation you are supposed to be aiming for in communicational terms you get out (if you are lucky) a trainee who is able to deal with those situations when they arise.

All in all, one of the greatest attractions of a programme of this sort is the freedom to experiment, where the teachers and material producers can relax from their traditional role of imposition and participate fully in a learning process.

Appendix I

SIMPLIFIED PROCESS DIAGRAM OF P T ARUN L N G PLANT



APPENDIX I

ORIENTATION FOLDER SUPPLEMENT NO 1

P T ARUN L N G PLANT

The facilities needed to process LNG are:

1 Pipelines to carry gas and condensate from a central field station.

2 An LNG plant to separate the condensate, dry and liquefy the natural gas.

3 Storage tanks and facilities to load the LNG and condensate into special tankers.

The Arun field contains both gas and liquid. This gas and liquid are partly separated at the field. Then they are sent to the LNG plant in separate pipelines. These two pipelines are joined together where they enter the plant. The gas and condensate are completely separated when they enter the plant. The condensate is then stored in tanks, and later exported by tankers.

The gas contains about 15% carbon dioxide, a very small amount of hydrogen sulphide and some water vapour (gas). These three things must be removed from the gas, before the gas is refrigerated. When the gas is cold enough it changes from gas to liquid. This liquid (LNG) occupies very much less volume at this very low temperature (-155°C). The liquid is sent to large insulated storage tanks, and then exported by special tankers.

APPENDIX II

The future

Part of the plant is now in operation and therefore provides a rich source of data for the language programmes. In a recent visit to the plant many photographs of all the major equipment and vessels were taken and plant site staff from the General Manager to the Operator level were interviewed. (Most of the interviews were taped). Organization Charts, specimens from technical manuals, details of the shift system, photographs of key personnel were collected. The data collection visit served two basic purposes:

1 To gather as much information as possible about future language training needs (eg the number of anticipated programme participants).

2 To gather as much information as possible about the training/working situation

The information obtained will be directly fed into the programme planning and material production, (eg The current organization chart and details of the shift system will be used to introduce the present simple in the revised programmes). Photographs of various activities will be used in communication practice. For example, a photograph of a man using a grinder might be used to elicit questions about what safety equipment he is using and why.

It is presently planned that the material developed in the first language programme will be extensively revised and used as a Foundation Programme. For participants at a more advanced level it is planned to design specific programmes for their departments. The main specialist/advances areas will be:

Language for Operations Department

Language for Maintenance Department

Language for Administration

Language for Fire & Safety (Emergency Response)

In answer to considerable demand from the expatriate staff a Bahasa Indonesia programme will also be developed. This will probably take the form of a foundation programme, parallel in methodology and material to the English training material, with modules in the areas of:

Indonesian for Operations

Indonesian for Maintenance

Indonesian for Emergency Response (eg Warnings)

Indonesian for Social/Domestic activities (eg Communication with the houseboys, in the market etc).

It is likely that the Indonesian for Maintenance will be more limited than the Indonesian for Operations as the language for Operations appears to be simpler (eg 'open' or 'Close the main valve') than the language of maintenance (eg detailed descriptions of the assembly of gas turbines). In other words, it seems likely that the words needs for Operations do, broadly speaking, have equivalents in Indonesian, but that the more complex terms of Maintenance do not.

One of the problems will be that the participants in language programmes at the plant site will only be available for approximately two hours per day and continuity will be erratic due to the frequency of home visits. Wherever possible attempts will be made to send all new employees of PT Arun to the training centre in Southern Sumatra where they will have a three month foundation programme before proceeding to plant site. Participants in plant site language programmes will keep an individual record card logging material covered and assessment data. If demand for plant site language training is sufficient there should be a group on each module of the material at any given time so that participants returning from leave should be able to pick up where they left off. Another partial solution to the problem of continuity will be to design the foundation programme and subsequent programmes on a modular basis with the training modules as independent from each other as is practical. (This is in contrast to the traditional linear preparatory — intermediate — advanced approach). Thus wherever possible the programems will be design on a work situation specific (eg language for Administration) basis rather than a 'level' specific basis (eg post intermediate). This approach appears to have been indicated with the first language programme. When the trainees arrived the original screening assessment data showed a typical fairly shallow bell curve. During the course of the programme the curve (using standard, repeatable tests and progress tests) show a marked skew towards a higher average mark and, more interesting, a noticeable narrowing of the attainment range. This seems to support the author's suspicion that lack of streaming tends to narrow and improve the ability range in this type of programme. The author also suspects that a complex streaming programme structure (pre-intermediate, intermediate etc) would have been self-perpetuating, with the 'bottom' groups conforming to low performance expectations and the 'top' groups performing well, unless complacency became marked.

More detailed guidance on classroom methodology will be included in the material ie Instructor Guideline handouts such as:

1 Basic (classroom techniques)
2 Group Work
3 Role playing
4 Overhead projectors
5 Tape recorders
6 Slide projectors etc.

MODULAR COURSE DESIGN

Richard Young, Direct Teaching of English Operation, Hong Kong

Introduction

It is generally regarded as desirable nowadays for teachers to recognize the differences between learners and adapt their teaching to allow for these differences. I shall not be concerned with whether in fact this is desirable nor with the circumstances which are most conducive to individualized learning. My point of departure is that individualized learning programmes need radically different kinds of materials to normal courses.

The optimum in materials which allow for individual variation are programmed materials in which each student follows his or her own path through the course. Ideal perhaps, but rarely practicable in most schools. Much has been written on the subject of programmes materials for language learning (2) and I have nothing to add. What I shall be concerned with is materials which allow the teacher the maximum amount of choice within the framework of a coherent course in order to allow for differences between classes and between individuals within a class. The difference for the teacher and students between materials of this kind and normal course books is like the difference between a holiday planned in all its different stages with the help of a travel agent on the one hand and a package tour on the other, where, once the package has been chosen, there are no more decisions for the holidaymakers to take. The course writer who sees himself as a package tour operator produces what I shall call **integral materials** which normally come in the shape of books. The travel agent course writer produces **modular materials** which normally come in separate sheets or facsimiles. Published examples of the latter type of materials are OUP's *State Your Case*, Bournemouth English Book Centre's *Your Choice* and the Orlando Press's Summer Course materials.

The teacher faced with a set of integral materials has his course designed for him by the author of the materials. With modular materials it is up to the teacher, like the travel agent, in full knowledge of where his class wants to go, of why they want to go there and of the strengths and weaknesses of both himself and his students to choose the route, ie to design the course and fit it to the needs of his class rather than force his students into a mould dictated by the materials.

The comparison is deliberately polemical. In the rest of this article I shall be taking a more balanced view of the claims I have made for modular materials. In the first part I shall be taking a critical look at both modular and integral materials in order to see which are more appropriate in which teaching/learning situations. In the second part, as an example of modular

course design in action, I shall report on some materials that have been developed for advanced general English courses at a language school in Britain (3) and discuss the suitability of a modular format in that particular situation.

Modular v. integral materials

As far as I know, the first person to treat modular courses seriously was Earl Stevick in his book *Adapting and Writing Language Lessons* published in 1971 (4). The modular materials he illustrates in that book were developed in the 1960's by teachers at the Foreign Service Institute in Washington, to teach languages to Americans going out to do Peace Corps Work abroad. But of more general interest than the materials themselves are the five 'assumptions' that Stevick makes in chapter 2 regarding the preparation of language teaching materials. These are of interest because if we look at them in another light — not as assumptions behind the preparation of materials but rather as criteria for evaluating materials already prepared — they form a useful framework for looking closely at the advantages and disadvantages of modular v. integral materials.

He calls these five criteria, or assumptions, Usability, Organisation, Responsiveness, Responsibility and Pluralism.

By **Usability** he means that materials should allow students to **use** the language which has been taught as soon as possible after it has been presented. I think this is a fairly orthodox view today. Both the idea of a 'production' stage in teaching and the idea that a course should have a high 'surrender value' are subsumed in Stevick's term. Indeed, most good materials — whether modular or integral — allow students the opportunity of using the language in realistic situations shortly after it has been presented.

His second criterion is that materials should be **organised,** by which he means that the language to be presented to the student should be ordered in some way. This, too, has become a commonplace: students learn best if language is presented to them systematically. Organisation, order, system. Of course they **are** necessary but to say we want materials to be organised is like saying we are on the side of good and against evil. The important thing is to know what type of organisation we want, and it is here that disagreement arises. There seem to me to be two main types of organisation for language teaching materials. There is intrinsic or **linguistic** organisation, represented, for example, by the familiar selection and grading of the structural syllabus. And there is extrinsic organisation, in which it is not the organisation of the structures or functions to be

taught which holds the materials together but something else — in many cases a story line, in some cases nothing more than the binding of the book. When one well-known text book writer states in the teacher's book to one of his courses that 'new structures are to be acquired through a process of **random accretion**' (5) he is saying in effect that there is no intrinsic structural organisation in his course. Is this a bad thing? If it means that there is no organisation at all in the course, then surely, yes, it **is** a bad thing. But I think we take a very narrow view of 'organisation' if we say that intrinsic organisation is the only organisation which is valuable for the learner. To be sure, we know that in order to store new information in long term memory a learner needs to interpret the new information in terms of that which is already present in his memory store, and thus he needs to make sense of, or organise, the new information in terms of the old. What we don't know is the form this organisation takes. Different learners organise new information in different ways. The organisation that the learner imposes on new information may or may not correspond to the way in which the information is presented to him. Surely, then, we should be open to as many different ways of organising the presentation of new language as we can identify: not only structural and other types of linguistic organisation, therefore, but also organisation by means of a story-line, by means of graphic presentation, by means of the course being taught by one teacher in one school, and many other types.

Two important corollaries of this are, firstly, notional/functional materials can be just as organised as structural materials and secondly, modular materials are, from the physical point of view, less organised than integral materials.

Stevick's third criterion is what he calls **responsiveness** — by which he means that materials must be responsive or sensitive to individual differences among learners and groups of learners. Materials must provide for individual and group variation in general language aptitude, in the emotional involvement of the group with the new language, in their motivation, in the words they can make immediate use of, and in the approaches and methods they will put up with. It is very difficult to see how integral materials can be at all responsive to individual or group variation. To be sure, the teacher can **adapt** integral materials to a particular class and programmed materials are designed to be responsive to some individual differences. The point about modular materials, however, is that they are specifically designed to be responsive in the hands of the teacher to differences between groups or individuals.

The fourth criterion that Stevick gives is that a course will be more effective if the students and teachers feel that they have some control over both the content of the course and the methods employed on it. This he calls **responsibility.**

On the surface, this assumption seems to be fine, but I would question its usefulness in some situations. There are some cases, after all, where the student is happy to abandon all responsibility to a teacher whom he respects. And in many cases the teacher, too, is happy, once he has chosen a book or had a book chosen for him, to abandon responsibility for the content of his course to the text book writer. And there are, after all, many situations in which such confidence is justified. Clearly, for these situations, well-chosen integral materials are fine from the point of view of responsibility. There are other situations, however, where both students and teachers positively benefit from having the responsibility of being able to plan their course as they go along. The students and teachers who most benefit from this are those who are used to having responsibility in their lives outside the school. I do not say that those students and teachers who are not used to having responsibility would not benefit from it. All I am saying is that in such cases 'responsibility' is a much less important criterion for evaluating the materials they will use. Whatever the teaching/learning situation, however, it is clear that modular materials allow for much more responsibility on the part of the teacher, since he has to choose which modules to teach and this may well lead to better teaching.

Stevick's fifth and last criterion is that no one format, and no one system, however ingenious, can be sufficient for even one student or group of students. And this he calls **pluralism.** And I would certainly go along with that. In my experience variety of approach increases students' motivation and consequently their ability to learn. The fact that a particular approach has been successful once doesn't mean that it should be used over and over again. In the long run, nothing could be more boring.

How do modular and integral courses score on this criterion? Well, in principle it should make no difference. Modular courses may be written by one author embodying only one approach and will consequently not be pluralist. Equally, integral courses may be written by very imaginative authors employing a variety of approaches which **will** be pluralist. Or vice versa. There is nothing inherent in modular materials which makes them more pluralist than integral courses. In practice, most courses, whether integral or modular, fail on this criterion. Integral courses **do** tend to employ one approach or only a limited number of approaches. But equally, such modular materials as are available commercially tend to fall into the same trap. However, where a potential advantage for modular materials lies is that it is more feasible that they should be produced by a team of writers working together, which would consequently ensure variety of approach and so pluralism.

To sum up, if we compare modular and integral courses on the five criteria suggested by Stevick, we get the following results. The first criterion of

usability does not really help since it has become part of the modern orthodoxy of language teaching and all types of materials are more or less 'usable'. On **organisation**, integral materials have the edge, since they are, at least physically, more organised than modular materials. Modular materials, however, are far more **responsive** — Stevick's third criterion — to differences between groups of learners. Indeed they are specifically designed to be so. On **responsibility**, well it depends; certainly modular materials allow greater responsibility on the part of teachers and students, but this may not always be desirable. And lastly, modular materials are potentially more **pluralist** than integral materials. But this has more to do with the number of people involved in writing them than with the nature of the materials themselves.

Modular materials — an example

From the above discussion it seems fairly clear that modular materials are most suitable in situations where there are marked differences between groups of learners for whom the materials are designed and where teachers will accept a degree of responsibility in the design of courses.

The materials which I will use to exemplify the modular principle were designed for use in a private language school in Britain. (3) While the fact of their being used in Britain was not relevant to the choice of a modular format, the existence of a staff of well trained and independent-minded teachers was. These teachers already had a great degree of freedom in choosing supplementary materials to use with a prescribed integral course and were most ingenious in the adaptation of the integral material to suit the needs of different classes. In other words they were already basing their teaching on Stevick's assumptions of **responsibility** and **responsiveness**.

The course for which the materials were needed was a course of general English for adults at an advanced — ie post FCE — level. The course was not intended to be specific preparation for Cambridge CPE or any other examination. It was to last for 3 hours per day for four five-day weeks, ie a total of 60 class hours.

The term 'advanced learner' in my experience is so vague as to be almost meaningless. Some people regard 'advanced learners' as having a sound grammatical competence in English, on to which communicative competence needs to be tacked. Some others regard teaching 'advanced learners' as teaching progressively more recherché and complex points of grammar. Others again think 'advanced learners' need wide and extensive reading in order to improve their command of vocabulary and idiom. On the other hand, some think that 'advanced learners' probably have a fine

receptive command of grammar and vocabulary but this needs to be activated by conversation and discussion.

Perhaps the majority of peole think that 'advanced learners' are simply learners somewhere on the road between those two Cambridge examinations. And of course everybody's right. Everybody's right because they're all talking about different types of 'advanced learners'.

Some teachers reported that their students required more grammatically oriented material and less communicatively oriented material as they regarded the latter as a waste of time. Other teachers reported exactly the reverse. Besides reflecting perhaps the teacher's own preference, obviously they were talking about different students with different needs, needs which were not just the different purposes the learners had in learning English, which is true of **all** learners but which were complicated by their experience in learning English thus far, both in terms of **how** they had learned it, which would affect how they would continue to learn it, and in terms of **what** they had learned to do with it, which would affect what they still had to learn to do. It seemed to me that the only person who was competent to judge which, out of this welter of competing and conflicting aims, were the most important ones for a class was the teacher. The teacher had to be given materials which would enable him to satisfy many different needs at different times. And the answer, of course, to a problem like this is modular materials. The organisation of the materials is shown in the diagram. Each box represents one module and the label in each box indicates the type of language practice concerned. Each module (with the exception of the communicative exercise) is designed to contain enough material for one class hour. Each column of boxes represents one unit of material. Each unit contains the modules which the teacher may use in one day. There are therefore 20 units, though only four are shown in the diagram.

Since one clearly identifiable need was to improve students' grammatical competence, each of the twenty units contains a grammar module. These modules contain contextualized practice of grammatical points not covered in most syllabuses up to FCE. For example the points in the grammar module in Unit 1 are the **modal — perfect passive** construction ('may have been discovered') and the use of **whether** to introduce adverbial disjuncts ('whether he likes it or not he'll have to pay for it') and to introduce noun phrases ('that depends on whether he's got enough money').

Another need for some students was to improve commmunicative competence, ie to learn to use language which is not only grammatically correct but also appropriate to the situation in which it is used. This is done

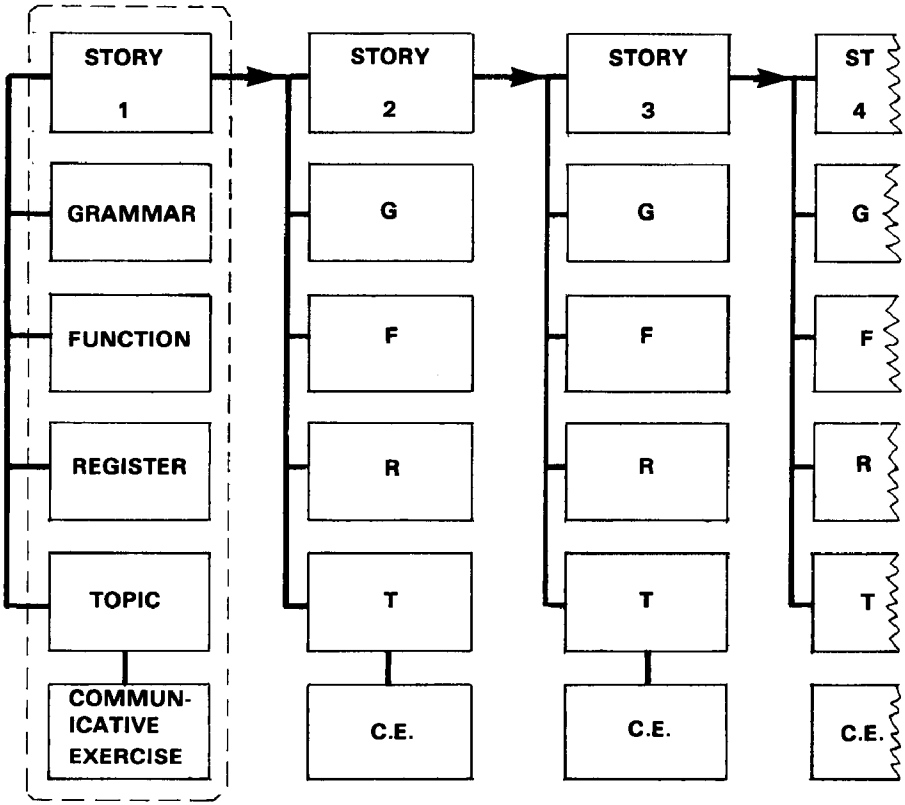


Fig 1

Organisation of a modular course for advance general purpose English.

with the function and register modules. The twenty function modules cover a range of **Threshold Level** functions, the exponents of which are finely differentiated according to attitudinal tone. In Unit One for example the function module covers expressing agreement and disagreement both strongly and tentatively and distinguishes between exponents used in formal and informal situations. It also covers interrupting and correcting.

The register modules fulfil a need which is strongly felt at this level to teach receptively and productively the use of English appropriate to spoken or written registers other than the normal polite informal ones used in most courses up to FCE. The twenty register modules cover such spoken and written registers as speeches, informal conversation, news broadcasts, newspaper articles in the popular press, official correspondence, and so on. In Unit One the register module covers the language of formal discussion and contains language appropriate to organising the discussion, reacting to other speakers and referring to what previous speakers have said.

The grammar, function and register modules (there is no hierarchy intended in the order in which I have treated them nor in their position in the figure) aim at the **acquisition** of new areas of either grammatical or communicative competence. On the other hand, the topic module and the communicative exercises aim to stimulate language **use**. They aim to make productive the knowledge of English that students already possess receptively and to encourage experimentation and the development of strategies for dealing with situations in English for which the students are unprepared. The topic modules aim to promote discussion on a wide variety of topics. The topic module in Unit One, for example, consists of a number of short authentic written and spoken texts on the topic of environmental pollution. These are intended to be used as parallel oral and written inputs into a class discussion on the topic. The class is divided into groups and each group listens to or reads one of the texts. The texts are chosen specially to reflect different aspects of the topic and different attitudes towards it.

The communicative exercises are just that — students use English in simulations, projects, play-acting, games, story-writing and other activities whose principal aim is something other than just learning or using English. in Unit 1 the communicative exercise is a simulation, in which a small town is suffering the effects of traffic pollution in its centre. The point of the simulation is to decide on a solution to the problem and the simulation takes the form of a council meeting in which the various plans are put forward and discussed.

The choice of which modules to use from any particular unit is left to the teacher, who is the only person who will know the needs of his students but from the point of view of balance it is recommended that he choose at least one from the three acquisition modules and at least one from the use modules. Now, of course, if that was the end of the story, this arrangement would be open to the criticism that it was no more than an unrelated jumble of material and throughout the whole course one might just as well use five completely different textbooks, say Ona Low for the grammar, Leo Jones for the functions, **Varieties of English** for the registers, and various supplementary material for the other two slots. On even a broad interpretation of Stevick's criterion of 'organisation' the course would be found wanting indeed.

What is needed is a linchpin which holds the modules within one unit together, thus providing some sort of vertical organisation, and which at the same time holds the course together, ie from one unit to the next, and provides some sort of horizontal organisation. This linchpin is the story module. It is the only obligatory module in each unit, since it is designed to contain examples of the grammar which is exploited in the grammar module and the functions exploited in the function module. Each story module throughout the course is an episode of a story which lasts over the whole twenty units. Each episode is told in the register which is later exploited in the register module and deals with the same topic which is exploited in the topic module. In this way, the vertical organisation of each unit is provided for.

The plot of the story provides the horizontal organisational thread running throughout the course, and each unit is linked to the next by a cliff-hanger ending to each unit's episode which has its dénouement in the next episode.

The need to exemplify a wide variety of registers means that the story unfolds in a different form in each unit. The episode of Unit One is supposed to be a discussion on the radio about building a nuclear power station in an unspoilt part of Wales. It thus exemplifies the register of formal discussion and the topic of environmental pollution.

The story episode is therefore in the form of a written, spoken or videoed text. It is also designed to provide individualised practice in listening. reading and viewing comprehension. The episode in Unit One is treated as a programmed listening exercise and the written episodes are similarly designed for individual study. Each student can work at his own pace through the text. Unless you're lucky enough to have a video lab, such individual exploitation of the video episodes is not possible, but the extra interest that video creates compensates for the loss in individualisation.

Let us take Unit One and see how a teacher might use the materials. In the three-hour day for which the course is designed you start off the day in the language lab with the programmed listening story episode. The teacher here distributes the material and gives help to individuals when they ask for it. In the next lesson, the teacher chooses grammar, function or register according to the needs of the class, and in the last lesson, once again according to the needs and interests of the class, he chooses either the topic or the simulation. On the following day he may choose the same alternatives or different ones, and so on throughout the course.

This is one example of a modular course which to my mind is capable of satisfying the complex and diverse needs of a particular type of student. Whatever it is, it's **not** a package tour because the teacher continually has to make decisions on the applicability of the materials to his class and choose those which are most relevant. No two classes are likely to follow exactly the same route through the materials because no two classes of advanced learners are exactly the same.

These materials have been developed for a situation in which teachers demand a high degree of responsibility in their choice of materials. They have been designed to be responsive to the different and complex needs of a wide range of learners. An attempt has also been made to overcome the lack of organisation inherent in modular materials. I have not gone into detail about the materials themselves because my point is not to show techniques for materials writing but rather to demonstrate the application of the principles of modular course design to the organisation of a particular set of materials for a particular teaching/learning situation. I believe, however, that it is possible to generalise. If materials writers look at the situations in which their materials are to be used from the point of view of Stevick's five criteria, they will find many cases where a modular format is preferable to an integral one.

Notes

1 A version of this article was given as a paper at the 3rd International Conference of IATEFL at Poznan, Poland in April 1979.

2 See, for example, Anthony Howatt *Programmed Materials and the Language Learner,* Longman 1975.

3 The materials were developed for the Regent School of English during the Summer of 1978.

4 published in Washington by the Foreign Service Institute of the US Department of State.

5 Alexander, L G and Kingsbury, R M *Mainline Skills A — Teacher's Book,* page 5, Longman 1975.

NOTES ON CONTRIBUTORS

Tom Hutchinson was born in Derbyshire, England, and educated at Dartford Grammar School, Pembroke College, Oxford, and Lancaster University where he took the MA in Applied Linguistics for English Language Teaching. He taught English and history in a London Comprehensive school before moving into TEFL, when his first job was teaching English in Oberhausen, West Germany. 1977-78 he spent preparing and teaching ESP materials at the Institute for English Language Education at Lancaster. He is now Materials Developer in Zagreb, Yugoslavia, where he is preparing teaching materials for the final two years of the school curriculum.

Born in Oxford, **Alan Waters** studied English at Glasgow, and did the PGCE with TEFL at Bangor, North Wales. He taught English at the secondary school level in Sierra Leone (1969-73) and at the University of Kuwait from 1974-1977. Since 1977, he has been a Teaching Fellow at the Institute for English Language Education, University of Lancaster, responsible for curriculum design, materials writing, teacher-training and research in English as a Foreign Language. He has published in *Modern English Teacher, ESPMENA, English Teaching Forum* (USIA) and *Practical Papers in English Language Education* (University of Lancaster.)

Françoise Grellet was born in Paris and educated at the Lycée Henri IV. After graduating from the Sorbonne she taught at Ecole Normale de Versailles and the Lycée Expérimentale de Sèvres where she is at present. She is author of Dossiers de Civilisation Américaine *Passport to the USA*, published by Didier.

Alan Maley was born in Essex. After graduating from St Johns' College, Cambridge in 1962 he did a further course of study at Leeds University. He then joined the British Council and has served as English Language Officer in Yugoslavia, Ghana, Italy and he is at present ELO in Paris. He has written several ELT textbooks including *Use of Dramatic Techniques in Language Learning* and *Sounds Interesting* both published by Cambridge University Press.

John Swales has taught EFL in Italy, Sweden, Libya and the Sudan. Head of English Department, Faculty of Engineering, University of Libya, 1966-70; Lecturer in EFL, Leeds University, Institute of Education, 1970-73; Director, English Language Servicing Unit, University of Khartoum, 1973-78. Author of *Writing Scientific English* (1971) and co-author of *English in the Medical Laboratory* (1979). Editorial adviser on ESP to Thomas Nelson & Son. Published articles on the Teaching of Grammar, The Language

Laboratory, ESP, Teacher-training in ESP, and Applied Discourse Analysis. Founder-editor of *ESPMENA Bulletin*. Current interests include Study Methods in the Middle East, instructional and technical language and teaching project and thesis writing.

Roger Hawkey is at present working in English Language Consultancies Department, British Council, London. In the past three years he has been on course design missions to Zambia, Venezuela, Egypt, France and Mexico. Before his posting to London he worked teaching and advisory jobs in Uganda, Thailand and Nigeria. (He has a PGCE (EFL) from London and a Reading MA (Linguistics)).

J Charles Alderson is Director of the Language Testing Program at the English Language Institute of the University of Michigan, USA. He holds an MA in German and French Language and Literature from Oxford University, and a PhD in Applied Linguistics from the University of Edinburgh, Scotland. He has taught in Germany, Algeria and the United Kingdom and prior to his present appointment was Head of the Research and Development Unit of the Centre de Enseñanza de Lenguas Extranjeras of the National Autonomous University of Mexico, Mexico City.

Ted Rodgers is Professor of Psycholinguistics at the University of Hawaii and, as well, Director of the Hawaii English Project-Secondary. He received his PhD from Stanford University and was a research associate in the Institute for Mathematical Studies in the Social Sciences at Stanford before going to Hawaii. During the years of 1973-75 he served as Ford Foundation consultant to the Malaysian Government on language planning and language education. He spent 1977-78 on a visiting attachment to the Department of Linguistics at Cambridge University and visiting researcher at the British Council, London. His varied professional interests presently include individualised instruction, curriculum and syllabus theory, cross-cultural education, learning strategies, and specific purpose language teaching — all subjects on which he has spoken and written extensively.

Christopher Brumfit was born in Worthing, Sussex, educated at the universities of Oxford, Makerere and Essex, and worked for eight years in Tanzania. He has taught in schools in Britain and Africa, in the universities of Dar es Salaam and London, and at the City of Birmingham College of Education. He is at present Lecturer in Education with specific reference to teaching English as a foreign language at London University Institute of Education.

Peter Roe was born in Abingdon, Berkshire. He served as a Pilot Officer in the RAF before doing a degree in Modern Languages at Oriel College, Oxford, followed by a Postgraduate Certificate in Education at London

University. He taught English in Tanzania for nine years and was Inspector of English for four of those years. He did an MA in Applied Linguistics at University of Essex and then returned to Africa as Adviser of English Language Teaching in Swaziland. In 1973 he joined ETIC for two years followed by two years research at Birmingham University. At present he is Director of the English Language Centre, King Abdulaziz University, Jeddah. His publications include the BBC course book *English for International Cooperation* and *Scientific Text Discourse Analysis Monograph No 4* published by Birmingham University.

Pablo Foster Born in Sheffield in 1936, attending the local art school and grammar school before doing National Service in Malta and degree courses in southern England. After teaching in London, spent four years in Libya, (learning to be a barber, on the heads of orphans), three years in northern England (teaching barbers), and six years in Tunisia. Since then, three years research and development in Scotland, with a Resource Pack for Teaching Mentally Handicapped Adults as the most recent project. Present post: Field Officer for Scottish Adult Literacy Unit. Present interests: a process curriculum for the educationally underprivileged.

(NB There are a few articles of which the author is anonymous. These are entered at the end of this Index.)

contents

price £4

ISBN 0 900229 67 5