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ESP for the University

Milestones in ELT

ELT Documents: 123

ESP for the University

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Milestones in ELT

The British Council was established in 1934, and one of our main aims has always been to promote the wider knowledge of the English language. Over the last 75 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 its 75th anniversary celebrations, we are re-launching a selection of those publications online. 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.

ESP for the University

This book, from 1986, provides a snapshot of developments in ESP teaching at university level during the 1970s and early 1980s. In his Preface, Christopher Brumfit challenged a recent claim that ESP had 'legitimised English teaching', suggesting rather that it had made English teaching 'more purposeful'. The papers in this book include an extensive one on task-based learning, and all are focused on practical solutions.

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ESP for the University

Edited by

DAVID HARPER
British Council

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Preface

In a recent discussion with South American university English teachers I was told that "ESP has legitimized English teaching". What is undoubtedly true is that it has systematized English teaching, and made it more purposeful. In the 1970s a number of major projects in English teaching at university level were initiated, and out of the practice thus generated serious discussion of syllabus design and methodology emerged. The papers here, edited by David Harper, reflect the concerns of practitioners as they grappled with the needs of university students to perform more effectively in English for their academic development. They clarify greatly many of the central issues in teaching languages for specific purposes.

CHRISTOPHER BRUMFIT

All the contributions to this volume were made by serving staff, both past and present, of the *English Language Centre, King Abdulaziz University, Jeddah, Kingdom of Saudi Arabia.*

Contents

Introduction

David Harper
Director, English Language Centre 1980–84

From 1975 until 1984 the British Council was associated with King Abdulaziz University in Jeddah, Saudi Arabia, in establishing an English Language Centre to provide for the language teaching needs of students of the university, most of whom were required to carry out their undergraduate and graduate studies in the medium of English. The general approach of the Centre was agreed at the outset but for the rest the contractual arrangements were of the turnkey variety. Thus for approximately five years the British Council were solely responsible for all aspects of the conduct of the Centre while in the remaining four there was a gradual handover to the Saudi University administration of the Council's financial, administrative and academic responsibilities culminating in the Council's final withdrawal in the Autumn of 1984.

From the beginning of the first contract it had been agreed policy that the Centre would adopt an ESP approach and generous funding permitted amongst other things a scale of course design and materials production that few less fortunately endowed institutions are able to sustain. It is the aim of this collection of papers to capture and record some of the thinking and practice that characterized the work of the English Language Centre, particularly after its theoretical underpinning was given a strong nudge towards task-based learning by Dr Peter Roe, Director 1977–1980.

During what must be called the first nine years, for the ELC continues of course to develop under its current Saudi management, the freedom to develop materials subserving a narrowly focused ESP programme had two disadvantages. The first was that courses were slow to stabilize and to assume a semi-permanent form. This meant, such was the preoccupation with production, that it was relatively late in the day that time was made for adequate reflection and critical comment on the materials staff were writing and teaching.

The second disadvantage lay in a tendency to divergence because ELC departments, which serviced different colleges of the university, enjoyed a good measure of autonomy. In pursuing departmental, and sometimes intra-departmental interpretations and glosses on management's academic directions, as far as materials were concerned, there

was a considerable drift to either side of what might have been considered to be a golden ESP mean. Essentially, however, this divergence was healthy and in any case was, by consensus, terminated in 1983, to be followed by a period of stabilization and evaluation that was continuing when the Council's residual responsibilities in the Centre ended in 1984. It was this period that led to the publication of four volumes of ELC Occasional Papers from which selections have been made to form this volume.

At the peak of the ELC's activities, service language courses were run on a full-time basis, i.e. up to 25 hours per week, for students from the colleges of Medicine, Engineering, Environmental Design, Environmental Sciences, Science and Economics. A special department met the needs of the university's staff and graduate students, while parallel courses to female medical, science and economics students were offered by the Women's Department of the ELC on their separate campus.

The division of papers in this collection needs little explanation. Judith Wilson working on data derived from the thinking and internal papers of Peter Roe, Martin Phillips and Rob Nolasco, has provided a distillation of the ELC's theoretical position. The rest of the book is devoted to practical issues.

The first of the ELC's courses to assume a form of stability which allowed time for staff to write about it was that for medical students. Janet McAlpin describes the nine year evolution of this course, and several other papers derive from related experience. Mustapha, Nelson and Thomas describe one of the Centre's major reading courses and there is a practical article by Janet King on the reading problems of Saudi students revealed early in their stay in the ELC.

Compromise was as necessary in the English Language Centre as anywhere else where foreign languages are learned, and although a norm existed that students below Band 2 on the entry test would not be acceptable for the Centre's course, observance of this norm would have debarred the majority of aspiring freshmen. To meet the needs of Band 0 to Band 1 students, a foundation course was established, the design considerations of which are described by Colin Payne in his paper.

In the final year of the British Council's involvement with the university in the ELC project, a large-scale internal evaluation of the effectiveness of the Centre's programmes was undertaken by a staff member, Phillip Gould, who was taken off all other duties for the purpose. His report proved to be too substantial to be adequately summarized in this volume, but there are copies in the British Council's Resources Centre Library in London. Testing and evaluation, however, were a constant preoccupation in the Centre and papers by Wilson and

Corbett outline some of the problems and solutions.

It is not possible to name all those whose work in the ELC over a nine-year period has made possible the articles that appear here. Suffice it to say that there is a large and invisible majority, all of whom deserve commendation for their roles in a notable and important ELT partnership. However these are three people without whose work this book could never have appeared. Judith Wilson and Janet McAlpin made substantial contributions to the ELC Occasional Papers series not only as authors but also as editors. Above all, the person responsible for nursing all four volumes through to publication was Piers Horey, Deputy Director of the Centre from 1982 to 1984 and staff member since 1976. He is therefore, in a real sense, the architect of these present papers.

PHILOSOPHY

General Principles

Judith Wilson

One – precepts

In the introduction the general development of the English Language Centre from its inception in 1975 to the present day was described. Besides an increase in size, and corresponding development in the administrative structure and resources of the ELC, this period saw the evolution of a philosophy of language teaching which now informs all the work undertaken at the Centre, generating the teaching and learning activities of the staff and students. The fact that its principles are generative is one of the factors which distinguishes the English Language Centre from most other language teaching organizations. It is often the case in the world of language teaching that the request for a new course or the advent of a new group of students will give birth to the question "Which textbook shall we use to teach them?" This type of question is irrelevent at the ELC, where specific language learning materials and activities are produced according to the principles of the Centre's pedagogic philosophy.

The development of this philosophy has been organic in the sense that it has grown and developed out of the collective experience of those who have taught and studied at the Centre. The philosophy has proved viable and effective for students at King Abdulaziz University in Jeddah, with their own particular language needs and their own attitudes to language and academic study. Whether the philosophy can be applied on a more universal scale remains to be seen.

This chapter will outline the principles on which the English Language Centre's approach to language teaching is based. Some of the practical applications in terms of classroom methodology will also be introduced here before being described in more detail in the next chapter.

Two – objectives

Within the field of language teaching a wide variety of methodologies exist and in some cases are propounded with considerable enthusiasm. The psychological theories which underpin these methodologies are equally varied and often conflicting. Because of this mild anarchy it is important for any organization involved in the teaching of large numbers of students and employing teachers from a variety of

backgrounds to attempt to achieve a balanced and agreed approach.

The ELC approach has taken the position that there is one hypothesis in which it is possible to place reasonable faith. This is that the more one does something, the better one gets at doing it. ELC programmes are, then, based on the premise of *learning by doing*. From this position the question of what our students are required to do in so far as English is concerned naturally arises. In general terms the answer is clear: the students are required to study all or part of their chosen discipline in the medium of English.

In this context, then, learning English for its own sake is clearly no part of the student's educational purpose. It could follow from this that the ideal solution to the problem of English medium studies is so to structure the presentation of the subject matter in the student's parent faculty that the level of linguistic difficulty is graded and therefore within the student's competence at any point in his course. The acquisition of the requisite language then goes hand in hand with the assimilation of the subject matter. A separate language course is, in fact, an irrelevancy. This kind of approach has been adopted in some ELC courses, notably a maths course for Engineering students, and tutorials for second year Medical students.

The argument so far suggests that the ideal solution to the language problem facing students in institutions which are wholly or partly English medium would be to devise a course structure which accepts the position of English as a medium of study rather than as its object. If this is the case it is legitimate to ask what point there is in offering English programmes that are designed as separate activities from the subject courses they are designed to make accessible to the students.

The answer is that, in the present circumstances at King Abdulaziz University, as at most universities, it is nearly always administratively necessary. Few subject teachers at university level are trained to deal with the communication difficulties presented to students by English medium studies. Indeed, it would be unreasonable to expect them to be. It is consequently not often possible to achieve the reorientation of attitudes that an ideal solution requires.

These considerations lead to a weaker statement of position than that outlined so far. In this view the English programme should train students in *the communication skills demanded of them by their subject studies*. Accepting the validity of learning by doing, a logical consequence of this position is that no communicative demand should be made of a student by his English programme which is not also made by his faculty courses.

Three – relevance

In order to train students in the communicative skills demanded of them by their subject studies, it is first necessary to find out what these skills are. The foundation of all ELC courses is a specification of student needs, that is, a clear statement of the language behaviour required of the student by his faculty.

From this statement, a set of behavioural objectives for the course are drawn up. The **relevance** of the English course arises from this relationship between the students' communicative needs and the objectives of the course.

Some examples of typical behavioural objectives for English Language Centre programmes are:

- the ability to follow a 45-minute lecture in the field of study and make notes on the main points;
- the ability to extract information from a first-year undergraduate textbook in the student's field of study;
- the ability to participate in a science laboratory investigation and to write up the procedure and findings in a report.

This approach thus establishes the paramountcy of the student's motivation by ensuring that the language programme is relevant to his purpose in attending university. It is the communicative needs that the student experiences that determine the structure and content of the course or courses which make up his language programme. But he experiences these needs by virtue of his intrinsic motivation to succeed in his subject studies, reinforced by the whole apparatus of extrinsic inducements built into the university system, such as examinations and the credit-hour system.

Basing the language programme in this way on a needs specification has important consequences. Firstly the motivational power of relevance is likely to be weakened if the language course attempts to cater for the potential or future needs of the student rather than for his present needs. In the eyes of the student himself, language needs that are manifest in the immediate present probably have a far more vivid and compelling logic than any other needs that he may experience in the future. The basic strategy of the ELC is then wherever possible to cope with present needs in a language course tailored to run in tandem with the student's academic programme. Any other strategy would mean that the course was perceived as irrelevant to the student's immediate purpose.

It is possible, however, to take a broad or narrow view of relevance. The narrow view relates the language course tightly to the communicative

demands made by the faculty. The broad approach attempts to influence faculty practice by producing results which will modify the demands it makes. An example would be where a faculty switches from requiring students to read handouts only to expecting them to cope with text books as a result of the ELC course. The extent to which it is possible to modify practice in this way is a matter of judgement in individual cases. There is no point in training a skill which the student will never be required to practise. Thus the broad view is only valid if a commitment is forthcoming if possible from the faculty; if, in effect, it can be converted to the narrower approach.

Four – tasks

We have seen that ELC courses are generated by sets of behavioural objectives. These embody some of the knowledge and skills demanded of the student by his faculty if he is to succeed in his studies. The objectives can conveniently be thought of as consisting of three interrelated **aspects:** a conceptual, a linguistic and a physical aspect.

For any objective, the conceptual aspect is determined by the subject content embodied in the objective. The linguistic aspect consists of the language items which realize that content. The physical aspect is the external manifestation of this convergence of content and language – as substantial as a written report or as intangible as sound waves in air.

These objectives define the **terminal** behaviour required of the student by the ELC course. Once they have been identified, the next step is for intermediate objectives to be set up to assist the student in his progress towards the desired terminal behaviour. These can be called enabling objectives. The ELC course therefore consists of a set of enabling objectives leading up to a terminal objective or objectives.

The relationship between the terminal objectives of the ELC programme and its enabling objectives is crucial. It follows from the theory of learning by doing that, if an enabling objective is to help the student to acquire appropriate patterns of behaviour, it must reflect the structure of the terminal objective. That is to say, it must also consist of three interrelated aspects. The level of difficulty of these aspects, however, will depend on the stage in the course represented by the particular enabling objective. Such an enabling objective is called a **task.**

The design of the programme thus assumes that students will most effectively reach the terminal objectives of the programme by performing in a way that reflects the behaviour described by those objectives: that is, learning by doing. The tasks which constitute the enabling objectives reflect the structure of the terminal objectives

which in turn reflect the communicative needs of the student in his faculty. Like the terminal objectives, tasks are expressed in behavioural terms, and as they reflect the structure of the terminal objectives, each task has a conceptual, a linguistic and a physical aspect. The only difference between the tasks and the terminal objectives is thus in their level of difficulty. The concept of difficulty will be further discussed in section seven below.

Five – the selection of tasks

An ELC programme thus consists of a series of tasks which gradually lead the student to display the terminal behaviour required by the programme. Any behavioural objective can generate a great number of different tasks. From these tasks it is first necessary to select those which will most effectively lead the student towards the terminal objectives.

Tasks selected for inclusion in the programme must satisfy a number of criteria. Firstly, their language and content must be that of the relevant discipline: that is, they must be **authentic**. Authenticity of content is normally achieved by careful study of the syllabuses for the various College courses being followed by the student, and by discussion with the academic staff of the College. However, the language which expresses the content must also, if it is to be authentic, be that of the relevant conceptual area. How is such authentic language identified?

For ELC students it is those lexical items common to all expositions of a particular topic which are important. If these can be identified, then it can be assumed that other items which may occur are of less significance, and likely to be idiosyncratic to individual language samples. This common set of lexical items is an example of **systemic language**. Systemic language is the language that articulates the conceptual systems of a subject. To take an example from the field of Mathematics, the English of Set Theory includes such lexical items as:

denote
subset
Venn diagram

and if items such as:

walking-stick
school
ping-pong

were found to occur they would have to be considered as non-systemic. Until now in the ELC systemic mini-languages have been identified through a process of intuition based on knowledge of the topic or

subject, the reading of textbooks associated with the topic, and discussion with subject specialists both in the Faculty and in the ELC. It is hoped that in the future it will also be possible to use the technique of collocational analysis, in conjunction with native speaker subject knowledge, to isolate systemic language. Thus for any conceptual area, those items which tend frequently to co-occur within a limited environment (say seven words) will be selected as being the items which typically articulate the concept. Collocational analysis can be performed by visual inspection of text. This is a time-consuming and labour-intensive process and has not been undertaken to any great extent at the ELC. It may be possible, in the future, to use the Centre's computers to assist in the identification of systemic language.

Thus, through rigorous collocational analysis or through the present method of informed intuition, a core of lexical items can be arrived at. Tasks generated by the terminal objectives of the programme can now be chosen according to the extent to which they embody elements of this core. A criterion is economy – one is looking for tasks that have maximum coverage of language items in order to reduce the duration of the ELC programme as far as possible and to maximize efficiency of language learning.

The discussion so far has implicitly concentrated on the characteristics of written scientific discourse. This does not mean that spoken discourse is ignored. It is, however, easier to identify systemic language from written text: the peculiarities of discourse structure in the spoken mode can then be handled at the level of classroom implementation rather than at the level of selection of task. This area will be further developed in section eight, The teaching of tasks.

The criteria for selection of tasks so far discussed have been authenticity of language and content, and coverage of systemic language. A further criterion is that the task must by definition include all three aspects: conceptual, linguistic and physical. It was stated earlier that these three aspects of tasks are interrelated. In fact they are inseparable. Many published ESP courses, however, consciously control the level and relevance of one aspect of a task only. The danger then arises that the other aspects may be forgotten or ignored.

Thus, for example, the linguistic and physical aspects may be emphasized and the conceptual one ignored. We then have language practice divorced from any communicative function. This can be called **ritual**. In ritualistic language usage, language forms are practised for their own sake rather than because there is a need to make such utterances generated by the requirement to perform a task. It occurs when, for example, the statement:

The sampling error is plus or minus 5%

does not inform, or the utterance:

The failure might be due to metal fatigue

does not hypothesize.

There is in these cases no relation between the language practice and the communicative demands made on the student by his subject studies.

Students may well be acquainted with language as ritual from their previous learning experience at secondary level. At tertiary level their need is to use English as a tool in their professional studies and it is unlikely that this can efficiently be met by yet more ritualistic language practice.

A second, more extreme example of a type of task that must be rejected because it does not fulfil the conditions implicit in its definition occurs when the output of the task is implicit in the content of the task itself. This is probably best illustrated by an example. Let us consider a sample passage:

> Oxygen diffuses into the red blood cell across its thin membrane and combines with the haemoglobin to form oxyhaemoglobin. Each of the four iron-containing haem groups combines with a molecule of oxygen. The attachment does not involve chemical oxidation of the iron which remains in a ferrous state throughout the process. The union is not a close one, the oxygen molecules being quickly attached to the haemoglobin in the lungs and equally readily detached in the tissues.

In this context if we were to ask:

What diffuses into the red blood cell across a thin membrane?

the student would be able to arrive at the answer through simple matching. The task has a physical aspect which is to provide the answer in either a spoken or written form, but the linguistic aspect of the task is at a very low level and the conceptual aspect of the task is entirely absent, in that no understanding of the content of the passage is necessary to answer the question. Such a task is said to be **trivial**, and, as such, is excluded from the ELC courses. An example of a **non-trivial** task based on the passage quoted above would be to require the student to answer the question:

How many molecules of oxygen does a molecule of oxyhaemogobin contain?

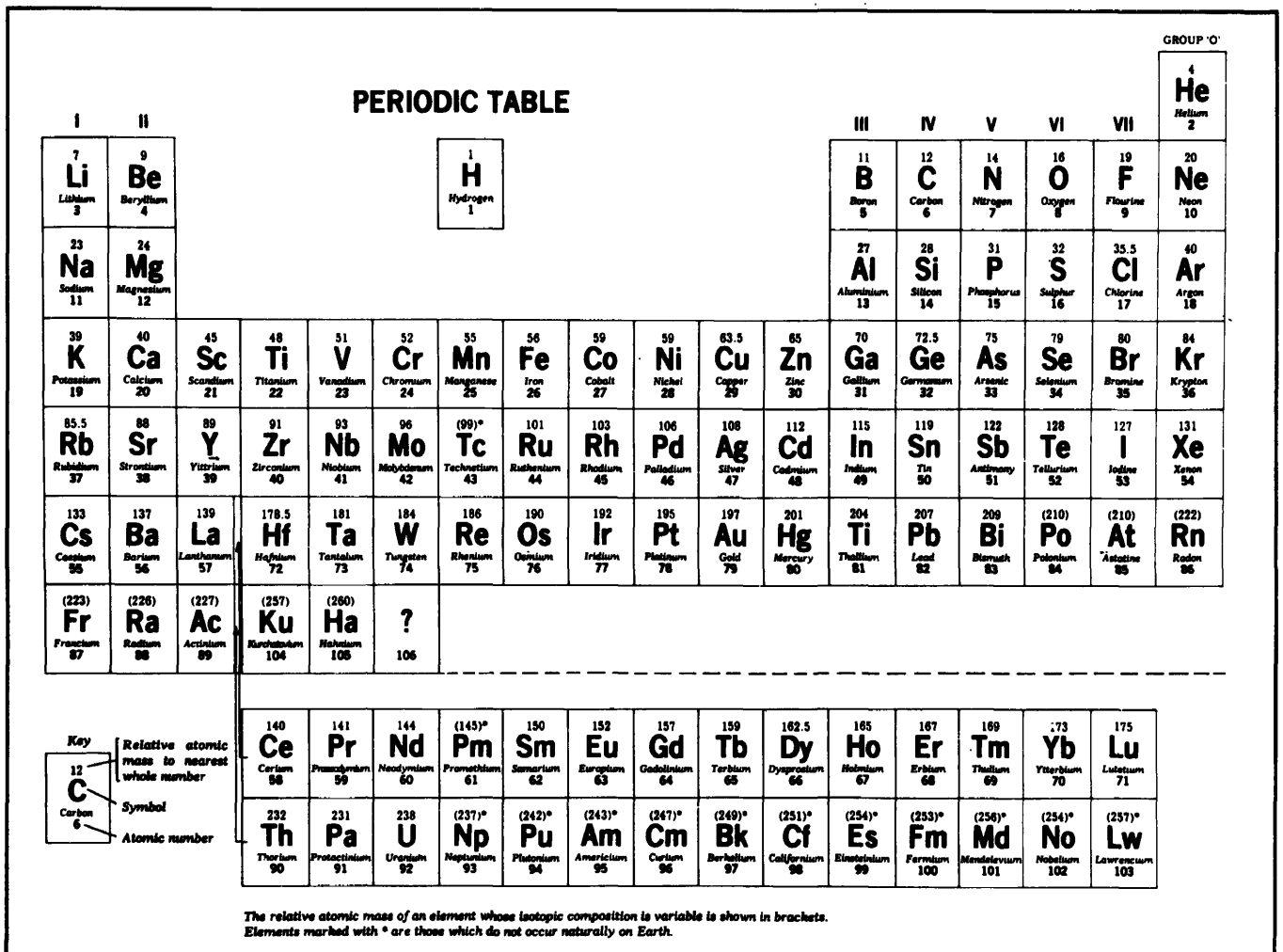


FIGURE 1 *The Periodic Table can be used as an input for non-trivial tasks*

where both linguistic and conceptual understanding of the passage are required of the student.

To take another example, this time using the Periodic Table as input, the student beginning an ELC course might be asked to complete a sentence of the type:

The symbol for _____ is Br.

This task is at a low level of difficulty, but it is not trivial since it includes all three aspects of a task. The student is required to be able to read the periodic table and extract information from it. This requires awareness of some of the conventions by which information is expressed in tabular form, and the ability to locate and extract information from a table. Both conceptual understanding and linguistic skills are required for this. Finally the student must be able to write the information in a new context; the physical aspect of the task. At a higher level of difficulty, the student may again be asked to process data and use his linguistic resources to encode the processed data as in the following example:

> Chlorine has the atomic number 17, relative atomic mass of about 36, and is a pale green gas. Iodine has the atomic number 53, relative atomic mass of 127, and is a purple-black solid.
>
> What can you say about the properties of bromine, which is the element in the group between chlorine and iodine?

This example involves a fairly heavy conceptual loading and would be suitable for more advanced students of Chemistry. The main point about the last three tasks, however, is that they are all non-trivial in that they cannot be successfully completed unless the student understands the meaning of what is expressed.

Six – the grouping of tasks

Section five described how an ELC programme is made up of tasks selected according to the criteria of authenticity of language and content, coverage of systemic language, and inclusion of all the aspects of task. The content of the programme is hence determined by the specification of appropriate tasks. However, other factors also have to be taken into account before a programme can be implemented. These include the grouping together of tasks, which is the subject of this section, and the grading of tasks according to their level of difficulty, which is dealt with in section seven.

Tasks may be grouped together according to the environments in which they most appropriately take place. If, for example, the task is

information extraction from textbooks, then a library or library skills training area is appropriate. If the task is to gather data in an experimental investigation, then a laboratory or a science activity area is needed. The mapping of tasks of a similar nature into environments results in discrete units of activity that are referred to as **components** of the course. The establishment of these components is, then, the first step in course design.

Many ELC courses consist of a series of components which directly reflect this mapping. The courses offered in the ELC programme for the Faculty of Engineering, for example, include a science activities component, a text book reference component, and a lecture note-taking component. Each of these results from the mapping of tasks relating to different behavioural objectives into an appropriate environment.

In practice, the picture just presented can be modified in two ways. Firstly it is entirely feasible, and indeed in certain cases desirable, to integrate tasks relating to a range of different objectives into a comprehensive activity. Underlying this process is a notion referred to as **level of focus**. Activities are considered to be at a high level of focus when they draw upon the skills inherent in a variety of different task types. An example would be the project work used on some ELC programmes, for instance the solar energy project which constitutes part of the ELC's Engineering course. At the other end of the scale are those activities which focus upon a discrete task, that is, which take the lowest possible level of focus. This is true of some of the language laboratory work in the ELC.

In general, *ELC programmes adopt the highest practicable level of focus, only operating at lower levels when breakdowns in communication at the higher levels are attributable to problems at the lower level.* The justification is that the student is normally required to operate at the higher levels of focus in his college study situation.

Secondly, it is often possible to organize teaching material so that the different components are closely related. This integration is achieved both by unifying the conceptual content of the different components and, in some cases, by physically issuing the material as a single booklet. The topics used on the ELC Medics programme illustrate this approach. In both cases, however, the fundamental principle of course design by grouping tasks into components still holds good.

Seven – the grading of tasks

Having selected a set of tasks and grouped them according to the principles described in the previous section, it is then necessary to consider how the tasks gradually lead the student towards the terminal

behaviour required by the course. Our aim is to order the tasks selected for inclusion in the course so that they present small increments in difficulty. The student can then be led gradually from tasks suitable for his entry level towards the performance of tasks at the target level of the course.

A system for the grading of tasks is therefore necessary. Such a system must allow for consideration of the difficulty of all three interrelated aspects of the tasks. The ordering of tasks for difficulty cannot be based solely on linguistic criteria since the linguistic aspect of the task is not the only source of difficulty for the student. At the same time, the ordering of tasks will not necessarily be the same as the conceptual ordering of topics that might be found on a science syllabus. An effective system for the grading of tasks must allow for the fact that the level of difficulty of a given task will result from the combination of *all* aspects of the task.

No formula has yet been found which can be applied to all tasks in order to rate difficulty. As staff on ELC programmes get to know their courses and their students, they nevertheless come to be able to rate tasks for difficulty quite accurately. All ELC programmes thus go through fairly lengthy periods of fine tuning during which tasks are reordered and modified in the light of feedback from staff and students. However, at the same time a policy for the grading of tasks is being developed which aims to relate tasks to student performance as objectively as possible in the light of our present knowledge. The starting point for this is the specification of nine levels, or **bands** to which tasks can be related. A band one task can be performed by a student who is only just beginning to acquire English language skills, whereas a band nine task would require the linguistic and conceptual knowledge of a native speaker subject specialist.

Since our programme objectives are behavioural ones, and since tasks relate to student performance, the specifications of band levels are also expressed in behavioural terms. Each band level, then, specifies the type or types of task that a student at that level can carry out. The target band level for each course is a reflection of the objectives of that course. Since different ELC programmes teach to different objectives, the band descriptions vary from programme to programme. Moreover, most programmes have more than one objective as their terminal behaviour. This is true, for example, of the programmes for English medium colleges. Consequently, a single programme may make use of a number of band descriptions (**bandsheets**) each corresponding to a different objective (see Appendix, p.89, for examples).

Although nine band levels are assumed, the majority of ELC programmes operate within the band range three to seven. It is felt that

this is the range within which the principles of task-based learning can be most effectively applied. Students who enter the ELC below this level follow special Foundation courses where the emphasis is on the revision and development of basic linguistic skills. On the other hand, it is considered that students who reach band six or seven will make further progress more efficiently through their subject studies than through attendance on further English courses.

Given a graded sequence of tasks it is now possible to see how, in the context of learning by doing, students can improve. Progress is made by performing tasks which are just barely within the student's ability. Continued practice should mean that a point will be reached when it can be said of the student that he is to perform these tasks well. At that stage, then, it is the next higher level of difficulty of task which is only just within the student's ability.

This definition of progress is reflected in the banding system which distinguishes half bands: a distinction is made between *poor to adequate performance*, which is glossed as *cannot attempt higher level tasks with any success*, and *good to excellent performance* which has the gloss *can attempt higher level tasks with success*. If, then, a student can perform tasks at a given band, tasks in that component of his programme should be pitched half a band higher than this point.

The bandsheet or bandsheets for each course thus act as a framework for the ordering of tasks, and so provide the basis for the organisation of the course. It follows from this that any evaluation of student performance on a given course must be related to the band descriptions for that course. The use of the bandsheets will be discussed further in section eleven.

Eight – the teaching of tasks

1. The function of materials

Since no materials have yet been commercially produced that embody the principles of task-based learning, it follows that virtually all teaching materials used by the ELC have been produced in situ by the staff. An individual solution to questions arising in relation to the implementation of these materials has therefore also had to be found.

Crucial to a solution is the position taken regarding the function of materials in the classroom. The primary purpose of our teaching materials is to create a situation in the classroom which generates the type of behaviour required for successful completion of a given task. This will include the need to use language, but excludes the use of materials to stimulate language practice in isolation. The justification

for this exclusion was given in the discussion of ritual in section five of this chapter. The materials are designed to help the teacher to create the need for appropriate communication, that is, to establish tasks.

With this view of the role of teaching materials in mind, it is now possible to consider the question of generating appropriate spoken discourse raised in section five of this chapter. If communicative task situations are created through the interaction of teacher, students and materials on the principles described so far, then appropriate spoken discourse will be generated and practised. It is not necessary to legislate for the spoken word or specify the precise forms it will take; since spoken language will arise naturally and be controlled by the nature of the task selected. This is what happens in real life, it is what happens in the student's college, and it will happen on the language programme provided that the situations in which it occurs naturally are replicated. One of the functions of materials, then, on programmes which have among their objectives the development of oral skills, is to achieve such replication. It should always, however, be remembered that this type of language learning is conditional on a certain minimum level of language attainment, which has been found to approximate to band three according to the assessment scale described in the previous section. Below this level students are generally catered for in special Foundation courses.

2. Task-based learning and the structural syllabus

The principles of task-based learning have been described earlier in this chapter. Before considering the implications of these principles on classroom methodology, it may be helpful to begin by describing the ways in which a task-based approach differs from a structurally-based EFL approach.

The structural approach is based on the belief that efficient language learning requires the atomising of the language and the arrangement of the atoms into a sequence of small steps of increasing difficulty. Each language lesson, then, requires that the student is systematically exposed to, and required to practise, these increments of language. In an ESP context, the increments of language would be vehicles for some type of scientific or technical content while in a regular EFL situation the content would be of more general interest. This approach in its purest form is based upon the belief that languages are learnt by systematic and sustained practice of formally correct language items.

Task-based learning makes different assumptions from the ones just described. In essence, task-based learning assumes not that the language should be atomised and practised in small increments but that the language is learned when students are placed in a position

where they have to use any or all of the linguistic resources available to them in order to achieve meaningful communication. The teacher's role is then to supply the language items necessary for the task to be undertaken and to assist when communication breaks down. Practice does take place but not in the systematic closely defined way required of the structurally based approach.

3. Teaching techniques

At the beginning of this chapter the importance of the student's motivation was established. The fundamental assumption was made that the student is at university to obtain a degree or similar qualification. ELC programmes use this motivation by deriving their objectives from the communicative demands made by the students' faculties. There is a practical corollary to this principle. The student is primarily interested in the way the ELC can help him cope with the subject content he meets in his faculty studies. This interest, then, must be seen to be met if motivation is not to flag. At the same time he will not be able to deal with the subject content in the faculty unless major communication problems have been overcome. This cannot be done, however, by separating the linguistic aspect of the task from the conceptual aspect and focusing on that in isolation. The lesson must be so structured that understanding of the concept develops together with the ability to manipulate and control the linguistic aspect of the task. The function of the teacher and the teaching materials is so to structure the lesson to make this development possible.

Nevertheless, on occasion communication will break down and the teacher will be obliged to step in and alter the focus of the lesson in order to deal with the occurrence of error. The manner in which occurrences of error are dealt with depends on a variety of factors including the timescale of the lesson, the point at which the error occurs, the aim of the lesson and the group dynamics of the class. It also depends on the overall objectives of the course. The governing factor, however, is the teacher's judgement of the significance of the error. Errors can be broadly of two types: factual errors displaying imperfect knowledge of the concepts, and formal errors revealing uncertain control of the linguistic code. Either of these types of error can lead to a breakdown in communication, in which case one can speak of **communicative error**. Whether the teacher should focus on the correction of error will depend, then, on whether or not the mistake is an instance of communicative error. That is to say, factual and formal errors require attention only to the extent that they impede communication. This is a matter for the teacher's judgement; however, it is usually the case that the majority of factual errors result in a breakdown of communication and therefore need attention whilst only a proportion, and often a relatively small proportion, of formal errors

have the same effect. Moreover, credibility suffers if students are left to allow factual error to pass for fact.

It is, of course, quite possible to focus upon virtually every instance of formal error to attempt to make the student's control of the linguistic code cosmetically acceptable. Such an endeavour, however, can only be justified when it constitutes the behavioural objective of the programme, as is the case with the ELC courses for graduates who are required to sit the TOEFL examination. Normally, however, this effort is unrelated to the aim of achieving communicative competence within the student's chosen discipline and requires far more time than is available.

Further, the aim of communicative competence excludes the prediction in course design of likely errors against which preventive steps are then taken in the form of special drills or exercises. If error is dealt with, it is because it has been identified as problematic in a particular student or group of students as a result of a breakdown in communication.

These considerations lead to practical responses to the kind of methodological questions that will be raised in the next chapter. It should be clear, for example, that the teaching of formal grammar can only find a place in the ELC class under exceptional circumstances. Similarly, techniques traditionally used to inculcate formal accuracy for its own sake, such as structural drilling, are not frequently employed. All teaching techniques must be evaluated for their relevance to the behavioural objectives to be achieved.

Nine – media resources

From the time of its inception the ELC has been described as a media-rich project. For the production of teaching material the ELC draws upon the resources of its own television studio (for making video-taped programmes), audio, photographic and graphics studios and reprographics and printing unit. It is legitimate, however, to ask the question: to what end? What justifies this not inconsiderable expense? Many a good lesson has been given with no more sophisticated a visual aid than a box of matches.

The point, briefly, is that the use of media is inescapable. It is not a choice between the use or avoidance of media; it is merely a question of which medium to use. After all, a cyclostyled handout is an example of the use of media services. It is logical, then, to aim at providing the widest range and the most sophisticated level of media facilities that can be afforded.

The criteria for selecting one medium rather than another in any

particular case related to motivation and appropriacy. What judicious use of media support can provide is impact. It seems to be a truth supported by common experience that the more arresting an impression, the more likely that impression is to be retained. The creative use of media compels attention and consequently enhances motivation. Such impact can, however, only be gained if the medium matches the message. For example, a television programme may prove to be far less effective for presenting lexis than a tape/slide programme. Close cooperation, particularly at the planning stage, between teachers and media staff is essential.

Finally, the role of the teacher as the primary medium repays consideration. The impact that the teacher's appearance, voice, manner and above all, enthusiasm has cannot be overestimated.

Ten – staff development

From the account so far of the principles and implications of task-based learning it will be apparent that this approach makes special demands not only on the materials designer but also on the teacher. The importance placed on the relationship between the objectives of the parent college course and the ELC course means that the English teacher is required to have a thorough understanding of at least some of the scientific concepts his students are required to master in the college, since he must be able to present tasks involving these concepts with authority and to evaluate the students' grasp of scientific concepts in the context of a task. At the same time the teacher must be aware of the linguistic aspect of the task and be able to deal with language problems as they arise, stepping in to provide help and guidance if the students' command of English syntax, phonology or lexis is insufficient for the task. In addition, the teacher must be adept in handling the media facilities available to him for the exploitation of the materials, ranging from professional use of the blackboard or whiteboard to use of more complicated multimedia packages, or active involvement in TV productions in front of or behind a camera. Finally, all of these skills will be of little use unless the teacher has the personal and professional abilities necessary to interest the students and involve them all in the learning process.

Because of the high level of linguistic, scientific and pedagogic knowledge necessary for proper exploitation of the materials, the policy followed is to recruit staff from both scientific and language teaching backgrounds, and to build up an in-service training scheme based on the special needs of the ELC.

The training policy which has evolved depends essentially on the continuing dialogue which results from the juxtaposition of qualified

and experienced teachers from a variety of disciplines who are all now involved in the continuing development of a new approach to language teaching. Broadly speaking, it operates at four levels.

Firstly, wherever possible the opportunity is provided for training at an individual level by team teaching and lesson observations. This is essential not only to demonstrate the nature of task-based learning to teachers previously unfamiliar with it, but also to investigate the value of the approach itself in terms of classroom practice. The video facilities of the ELC have been utilized for teacher training and research in this area and it is hoped to develop the use of video further so that it can act as the basis for an explicit and detailed methodology. Secondly, at departmental level, seminars, workshops or informal discussions take place on the principles, design and exploitation of materials. The fact that the preparation of materials is not the responsibility of a separate team but is shared by most or all of the members of a department is an important stimulus to the development of ideas at this level. Tutor handbooks, rationales and background explanation have been provided by most departments to provide pedagogic, linguistic and conceptual guidance to departmental staff engaged on teaching specific programmes. At a third level, handbooks exist on general aspects of the ELC's work such as assessment policy, the place of media, and the principles and classroom application of task-based learning. At this level, also, seminars are held for teachers from different departments on topics of wider relevance, so that staff from all parts of the ELC have the opportunity to discuss theoretical and practical aspects of their work together. On occasions, visiting consultants or specialists may provide input to seminars or discussions within the ELC, thus providing a very necessary link with developments outside Jeddah. This leads us to the final level of in-service training, which is through contact with institutions and developments outside the English Language Centre. Individual members of staff may both develop their own professional skills and provide feedback to other ELC staff through attendance at international conferences, symposia and advanced training courses. A similar function is performed by the ELC staff library, in that books and periodicals also allow teachers to remain in touch with developments in the fields of language teaching and science.

Staff training is thus necessary not only to introduce new teachers to the principles and practice of task-based learning in the ELC, but also to provide the opportunity for the professional development of the Centre as a whole, and for the critical examination of its policies.

Eleven – student evaluation

Since the target for all ELC courses is a set of behavioural objectives, it follows that assessment of a student seeks only to establish how far he

has progressed towards fulfilling the objectives of his course. The band system described in section seven of this chapter provides sets of behavioural criteria not only for the grading of tasks but also for the measurement of student performance. Since individual band sheets vary from course to course, assessment is closely linked to the design of the particular course the student is taking, but the principles remain the same.

Students at the ELC are evaluated at three stages in their course: at entry, during the course, and on completion of the course. Since at each of these stages evaluation is carried out for a different purpose and in different ways, the stages will be described separately.

Even given similar educational backgrounds, the level of English of individual students varies greatly on entry. In addition, because of special reasons such as travel or study abroad, some students may be considerably stronger or weaker in English than average. Since the students' previous experience of English has been general rather than specific, and since at this stage they have no experience of task-based learning, the students are given a general proficiency test on entry rather than a test related to task performance. The test is designed to measure whether the students' general language proficiency is sufficient for them to be able to follow an ELC task-based course successfully. It has already been stated that in general it is felt that only students above band three level can benefit from such courses. Students whose entry test results indicate that they are below this level are directed towards linguistically based Foundation courses. The entry test result may also be used to stream the students on one course into groups of similar ability levels. This results in more homogeneous groups, which helps the teacher in the selection and monitoring of tasks appropriate for the level of his group.

Once the students have begun their ELC course, evaluation of their progress is carried out according to their ability to perform tasks rather than according to their language proficiency as such. The bandsheet or bandsheets for each course provide the basis for the assessment of student progress. The relationship between tasks and specific band levels which results from the grading of tasks in relation to bandsheets means that it is possible to judge what level a student has reached by looking at the tasks he can perform at a given stage on the course. The students' progress is sometimes measured by setting formal or informal tests and by evaluating the students' ability to perform tasks without support from teacher or colleagues or the students' classwork may be used as the basis for evaluation. Thus the progress a student has made towards fulfilling the objectives of, for example, a reading course can be measured by presenting him with a reading task at a particular band level in a test situation, and assessing whether or not he can perform

the task satisfactorily, or alternatively by noting the level of the reading tasks he can carry out in class at a given stage in the course. In addition, tests or quizzes may be given during the course which do not relate directly to the behavioural specifications given on the bandsheets, but which are at a lower level of focus. Thus, for example, for feedback or motivational purposes it may be desirable to test the students' control of the systemic language of a given area by focusing on discrete linguistic items. However, in such cases the principle of non-triviality is still applied and the item is still presented in a context relevant to the students' field of study.

Students are evaluated at the end of an ELC course to ascertain whether they can perform tasks at the target level for the course. If they are able to do this, they may either go on to another, higher-level ELC course, or be considered to have attained a level of English sufficient for them to follow their faculty studies without further ELC support. Final examinations therefore relate to the band descriptions at the target level for the course, and consist of a task or tasks which the student must complete. The examination is not designed to assess the linguistic proficiency of the student alone, or to assess the student's understanding of the concepts he may have covered in his English course. Instead the aim is to design a test that replicates as far as possible the type of behaviour that is required of the student by his college: to perform an experiment and write a report, or to refer to source material to find and extract information in order to answer questions on a particular subject, for example. Since linguistic, physical and conceptual aspects of tasks are interrelated during the course, they remain interrelated for assessment purposes. It follows from this that it is not necessarily possible to draw conclusions about a student's general language proficiency from his performance of a task in a progress or achievement test.

This is not to deny that different students may show varying levels of linguistic proficiency in performance of the same task. But our main concern is to evaluate the student's communicative ability in the context of a task or set of tasks relevant to his chosen discipline, and this will not depend solely on his linguistic proficiency but also on his ability to use all the means at his disposal to perform a task in a way that would be acceptable in his college.

Considerable work still has to be done to investigate both the validity of the bandsheets for different courses, and also the relative difficulty of tasks generated by the terminal objectives of a course. Feedback from tests and examinations provides valuable data for this work, and longitudinal studies of students' faculty careers should also eventually provide further information on the relationship between the performance of tasks in the ELC and the students' ability to cope with the

communicative demands subsequently made on them by their faculties. The assessment system thus implies evaluation not only of the students, but also, eventually, of the teaching materials, course design and principles of language learning being developed in the ELC.

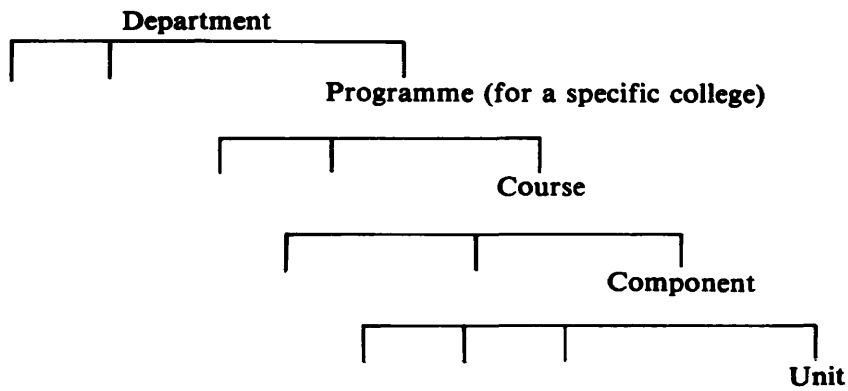
Task-based Language Learning

Judith Wilson

One – introduction

In the previous chapter the basic principles according to which ELC programmes are designed were established and some of the methodological implications of these principles were discussed. In this chapter we shall examine in more detail the ways in which the principles of task-based learning affect both the preparation of materials by the course designer or materials writer, and also the teacher's exploitation of these materials. These will be discussed firstly in general terms and then, in sections four to eight, in relation to particular components. The components chosen have been selected as being representative since (with variations in subject matter and approach according to the needs of the students) they appear on several ELC programmes.

The following diagram provides clarification of the nomenclature used to describe ELC programmes and their subdivisions:



Two – certain basic propositions

1. Relevance

If the tasks have been selected according to the criteria described in the previous chapter they will be relevant to the student's needs. Clear specification of the task will define a minimum linguistic and conceptual content for the task and guidelines for its physical realisation. However, the tasks must not only be relevant but must be

perceived as such by the student. Consequently the teacher must always be able to explain to the students the reason for any learning activity in terms that they can relate to their present needs in the college.

2. Appropriacy

All tasks must be at an appropriate level – that is, they must be not more than half a band in advance of the student's present competence. Given that the student does not work in isolation on a task but always has access to a teacher, and is, in many cases, working in consultation with his peers in pair or group work, the student is able to succeed with increasing ease in carrying out tasks at this level. As he improves he requires less support from teacher or peers until he reaches a level of ability that enables him to attempt tasks at a higher level.

3. Learning by doing

If students learn by doing, the corollary is that they will learn what they do. The teacher must ensure that the activities taking place in the classroom can always be justified in terms of the objectives of the course. To some extent the materials used act as input to the task and mould and guide the student towards successful completion of the task. But the teacher has to ensure that the materials are effective in creating a situation where learning can take place for the particular students he is teaching. This requires constant monitoring and varying degrees of teacher involvement in activities at each stage of the lesson.

4. Involvement

Since the performance of a task requires the active participation of the student, the lesson must be organized so that all students are involved in the learning process. In addition, whenever possible the centre of focus of the lesson is on the students, who may be working individually, in pairs or in larger groups on a given task, with the teacher providing help and additional guidance as and when it is needed. However, involvement finally depends on the student's interest in the teaching situation, and on his recognition of its relevance to his needs.

5. Motivation

As discussed in the previous chapter, students bring a relatively high degree of extrinsic motivation to the learning situation since ELC courses are prerequisites for further academic progress. Attention is also given to increasing the student's intrinsic motivation by basing the course on his immediate needs, presenting the material with media-intensive support, and actively involving him in the learning process.

Since the work done is always just within his present ability, the learner gains confidence and his level of alienation is reduced. Even a student whose general proficiency in English is low should be able to perform authentic tasks successfully at gradually increasing levels of difficulty. All of these factors serve to increase a student's intrinsic motivation.

Three – aspects of classroom methodology

The teacher's responsibility, according to the principles outlined so far, is to set up and monitor a situation in which task-based learning can take place. At times his role will be a central one. Examples of such occasions are when the teacher is presenting information containing the concepts and linguistic items which will act as input for the task, providing feedback on the task or an aspect of it, or providing help and elucidation in the case of a breakdown in communication. At other times the teacher's role will be less central: he will still be available for help and advice, but the main responsibility for the direction and pace of the activity will be on the students. At such times the teacher will be mainly concerned to ensure that the activities the students are engaged in are still effectively directed towards completion of the task.

The teacher may thus be engaged in interaction with the class as a whole, providing linguistic and conceptual input for a given task, or he may be involved on a class, group or individual basis on one aspect of the task where difficulties have arisen in understanding or performance. An important feature of task-based learning is that problems are only dealt with if and when they arise. A teacher familiar with the material and aware of his own students' strengths and weaknesses will nevertheless have considered some of the difficulties that may arise during the performance of a task and will thus be prepared to deal with them, but only if this need is demonstrated in the course of the lesson.

Given that the task is slightly ahead of the student's present ability (the degree will obviously vary with individuals in a group), various strategies may be used to help the students towards successful completion of the task. The rest of this section will discuss some of these strategies, and then consider the place of some traditional language-teaching strategies such as the teaching of grammar and phonology in relation to the methodology of task-based learning.

1. Avoidance strategies

Performance of a given task will require a student to understand and process the concepts and language associated with the task. The concepts will be the subject matter of the task, selected from the content being covered by the student in his college courses. The language

consists of the systemic lexis of the content area, together with the language structures that articulate this lexis. Problems in understanding and performance in both areas are avoided in several ways.

Firstly, the normal pedagogic procedure of proceeding from the known to the unknown is followed. Thus a new task is usually introduced by revision of aspects of a previous task. New information can then be presented and related to what has already been covered. For example, an early unit in the Medics Core Studies component covers breathing and respiration. In this unit the students are introduced, in a video presentation, to some of the systemic language and concepts associated with this subject, such as the names of the main parts of the respiratory system, verbs such as *exhale, inhale*, and *expand*, and concepts such as the *effects of expansion or contraction of the thoracic cavity on air pressure in the lungs*. Students are then required to produce, orally and in writing, a step-by-step account of the movement of air through the respiratory tract and lungs, based on a diagram of the respiratory system (see Figure 2). Several months later in the course, the same general area of content is covered at a more advanced level in the Topics component. Teachers are advised to begin the related topic, *Gaseous exchange*, by using the original overhead transparency of the respiratory system from the Core Studies unit as a basis for revision before going on to more involved tasks such as a description of the passage of oxygen from the outside air to the tissues based on Figure 2, or a discussion of the varying levels of oxygen saturation and partial pressures of oxygen in the air and blood based on information from Table 1.

A second, related procedure for the avoidance of problems in the comprehension and use of new items is the use made on all ELC programmes of visual support. Both materials designer and teacher make use of a wide range of visual aids, including video, slide film and overhead projector. An example of the type of use made of visual support is a language mini-unit on the Engineering programme designed to introduce students to the type of language associated with the description of electrical circuits. Here the initial input takes the form of a slide sequence: new items of vocabulary and the important associated language structures are presented together with the conventional diagrammatic representation. Later in the same unit, students use workcards with diagrams of electrical circuits as a basis for oral production of the language, and draw their own circuit diagrams in response to oral and written instructions. However, as is clear from this example, the use of visual support goes far beyond being an avoidance strategy. The ability to understand and interpret diagrams, models, tables, graphs and in some cases equations is a requirement of all students in the colleges for which the ELC provides undergraduate language programmes, and therefore features among the terminal objectives of all ELC courses.

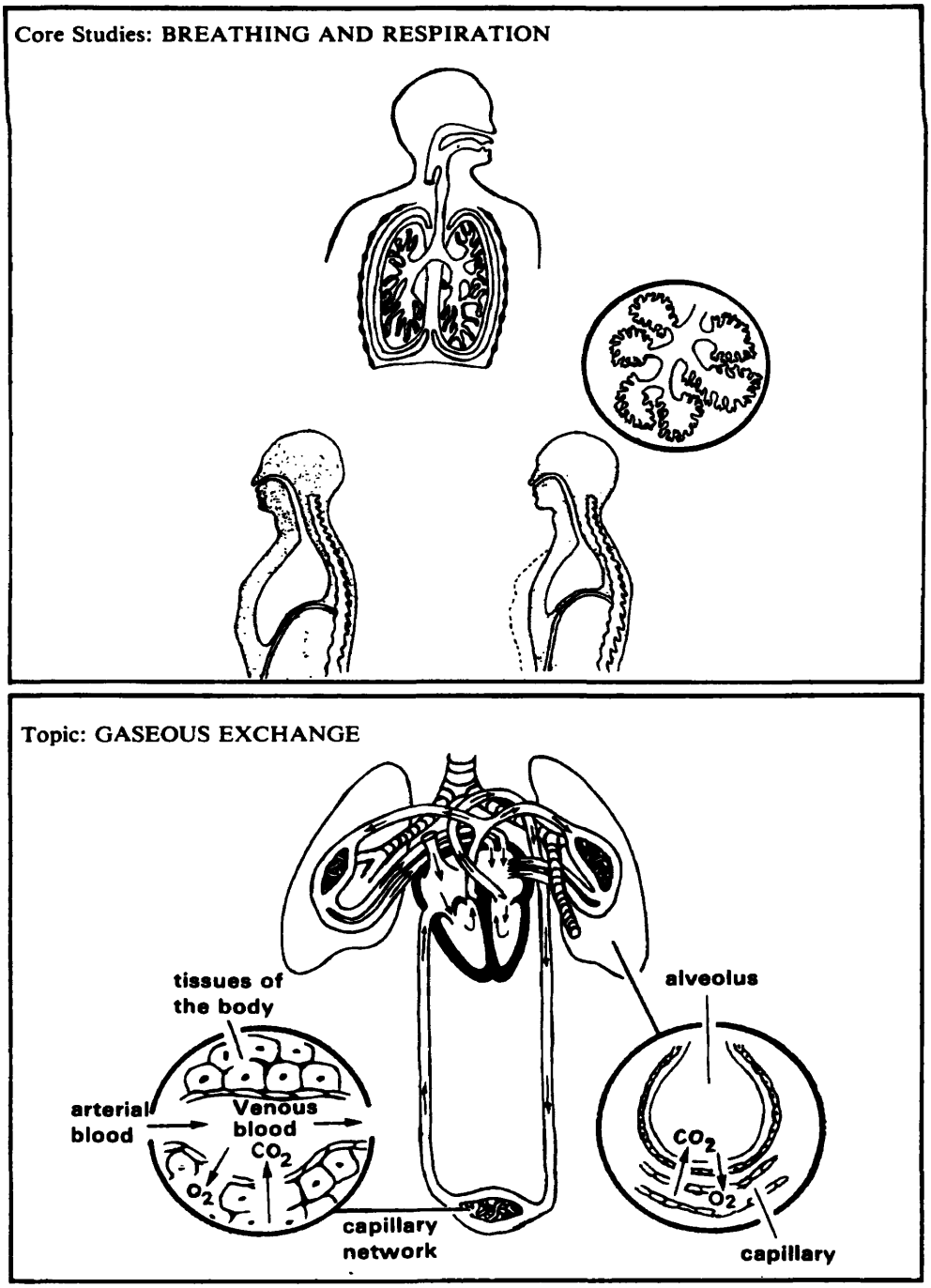


Figure 2 *Diagrams used to elicit scientific description*

TOPIC: GASEOUS EXCHANGE **DISCUSSION EXERCISE**

GASEOUS EXCHANGE: TABLE OF FIGURES
(AVERAGE PERSON AT REST)

	% O_2	% CO_2	% N_2	% O_2 SATURATION	p.p. O_2 in kN/m^2	p.p. CO_2 in kN/m^2
Inspired air	20.95	0.04	79.01	–	20	0.5
Air in alveoli	–	–	–	–	13.3	5.3
Blood leaving lungs	–	–	–	95	13.3	5.3
Blood in left side of heart	–	–	–	95	13.3	5.3
Blood entering systemic capillaries	–	–	–	95	13.3	5.3
Blood leaving systemic capillaries	–	–	–	75	5.3	6.0
Blood in right side of heart	–	–	–	75	5.3	6.0
Blood entering pulmonary capillaries	–	–	–	75	5.3	6.0
Air leaving alveoli	–	–	–	–	13.3	5.3
Expired air	16.4	4.1	79.5	–	13.3	5.3

TABLE 1 *A table used as an input for a discussion*

Thirdly, problems which might arise if new content and linguistic items were presented in isolation are avoided since tasks must by definition include their own context. A task cannot be separated from its conceptual content, which in turn reflects the content of the students' college studies. The concept of level of focus introduced in the previous chapter is relevant here. At a high level of focus, a student who has spent several hours reading, watching videos and taking notes,

discussing and writing about various aspects of the same subject will clearly find new information on the subject much easier to process than he would if the information, whether conceptual or linguistic, was presented to him in isolation. Even at a much lower level of focus, as in some language laboratory units, language and concepts which may in themselves be quite advanced can be handled by the students when manifested as a task whose content relates to subjects being covered by the student in other components of his ELC course and also on his college courses.

Finally, it should be mentioned that information may be made more accessible to the student by varying the speed with which it is presented or by controlled repetition of the information. Recorded input for tasks at lower band levels is sometimes delivered at a slightly slower pace than for higher level tasks, and a class teacher may also adapt the rate at which he speaks according to the level of the class he is teaching. However, this must be done with care if the language is to remain authentic, and it is usually more satisfactory to limit the scope of the operations performed by the students at lower levels so that they can extract and interpret information from an input presented at normal speed, which may if necessary be presented more than once. The same general principle applies to the control of written input: a degree of simplification may take place in the input for some low band level tasks, but in general the task is brought within the students' ability by restricting the scope of the task so that students gain confidence as early as possible in their ability to handle the type of texts they use in their college studies.

2. Elicitation strategies

The teacher may use questions or other techniques for eliciting information from students for various reasons. He may wish to find the extent of the students' understanding of a concept before beginning a task, or to check their understanding at various stages during the performance of a task. His objective may be to guide the students towards better understanding of one aspect of a subject, or to stimulate open-ended discussion. In all of these cases the teacher has to consider both the content which he wishes to elicit from the students and the form this is to take. The comments which follow will use examples taken from oral interaction, but the principles described apply equally to the elicitation of written work. However, in the latter case, the selection of appropriate elicitation techniques is probably to a large extent made by the materials writer rather than by the teacher.

The most commonly used method of eliciting information to check previous knowledge, or understanding at one stage in a lesson, is by the use of questions. The question form used by the teacher will influence

the response given, so that a tag question such as:

A plant cell is different from an animal cell, isn't it?

tends to invite an affirmative answer to a greater degree than:

Is a plant cell different from an animal cell?

However, in either case the student's response will probably be minimal. In many cases the teacher may wish to encourage the students to provide more information, in which case questions such as:

Can you tell me some of the differences between a plant cell and an animal cell?

or:

What structures do a plant cell and an animal cell have in common?

are more suitable.

In any question/answer exchange the answer naturally provided by the student rarely takes the forms of a complete sentence. For instance, appropriate responses to the last question would be:

A nucleus . . . mitochondria . . . a cell wall.

If the teacher wishes to elicit more extended speech, the questioning technique is unlikely to be appropriate. Instead a student can be invited to comment on information presented in a form such as a diagram, table or flow chart. A student might thus be asked to describe the differences between a plant and an animal cell to the rest of the group or class using information presented in the form of diagrams on student worksheets or the overhead projector.

The form of elicitation used therefore affects the student's response and is controlled accordingly. At the same time it is necessary to consider the type of content being elicited. For example, after a unit on atomic structure, a teacher might attempt to check the student's understanding of the unit by asking:

What is an atom?

This is philosophically quite difficult to answer and would probably fail to produce a response. There are other, simpler, ways of checking. Thus, after the students have watched a video on the subject of cell structure, the teacher might ask:

Where do you find organelles?

or:

Name some organelles.

but would avoid questions such as:

What does organelle mean?

To take another example, in order to establish whether a class has understood *solvent, solute, solution, soluble* and *insoluble* the students may be presented with salt, sand and water in a beaker – or with a representation of this in the form of a diagram – and asked:

Can you name the solvent?
What is the solute?
Is the salt insoluble?

Some questions are more demanding than others so strategies are also varied according to the level of the class and the individuals in it. For example, in the same science activity session a weak student may be asked:

What was your heart beat rate after excercise?

while a stronger student might be asked:

Why did your heart beat rate increase after exercise?

Finally, the extent to which individual contributions are required or volunteered varies according to the type and level of information being elicited, the group dynamics of the class and the type of activity taking place at that stage in the lesson. A teacher circulating from group to group in a science activity may request information from a particular student:

What was your heart beat rate after exercise, Ali?

or the question may be asked to the group or class as a whole and a volunteer selected to reply:

Why did your heart beat rate decrease after two minutes rest?

Yes, Mohammed?

In more open-ended discussion where the situation more nearly approximates to a seminar or tutorial, a freer approach is appropriate and students are encouraged to contribute without such a high degree of control by the teacher. His role will then be unobtrusively to encourage contributions from as many students as possible by occasional intervention, usually in the form of open questions or referral to the interests or specialisations of individual students, as well as by general pedagogic techniques such as the use of eye contact and variation in his physical position in the classroom. In this type of free-ranging discussion on scientific topics, the teacher with an EFL background will at times find that parts of the discussion may involve scientific concepts with which he is not familiar, so that his contributions to the discussion may take the form of questions to which he genuinely does not know the answers. Such a situation may initially make some teachers uneasy, but it is a useful example of a situation

which can, if the purpose of the lesson is kept in mind, be of real communicative value.

3. Repair strategies

The general application of the principles of task-based learning to error has been covered in the previous chapter: the main responsibility of the teacher in this area was established as being to deal with cases of communication breakdown arising from formal error, factual error or a combination of the two. In this section the types of errors handled by the teacher will be discussed in more detail and some strategies for repairing communication breakdown will be described. The following examples of error are drawn from student written work in an ELC programme run for the School of Environment Design:

**Many buildings have ears within them which are circular.*

**Vancouver:*

Location: It is in north west of the north USA in Canada.

It is probably safe to say that in both cases communication has broken down. In the first case it is unclear what the student wants to say – perhaps he means *areas* or perhaps not. The error is a formal one. The second example also indicates a failure of communication in that there appears to be either a conceptual error in that the student is muddled as to the relative status of Vancouver, Canada and the USA, or a formal error deriving from faulty preposition use:

Vancouver:

Location: It is to the north west of north USA, in Canada.

Whether the above errors are formal or factual, it is clear that they must be corrected because communication has broken down, that is to say that these errors are significant errors.

The second category of error discussed in the previous chapter is the type of error which does not materially interfere with communication. Consider the following, an error drawn from a student's written report on distillation:

**We use the distillation to make the sea water without salt to can drink it.*

The Engineering student who produced this utterance has succeeded in communicating the basic idea that the process of desalination is based upon distillation and that potable water is the end product. This is surely no mean feat in a second language. Although the quality of communication is far from perfect, no major repair strategies are necessary because effective communication has taken place. This is not to gainsay the argument that, in a perfect world, one would want the

student to improve the grammar of his utterance and bring it up to the level of the educated native speaker of English. Achieving this level of formal code control requires a truly massive investment of time, an investment that the individual student of science and technology, let alone the institution in which he is studying, is unlikely to willingly undertake.

At this stage it is necessary to introduce a third category of error, the type of error where although the meaning of the utterance may be retrievable, the quality of communication has been impaired and the error, if repeated, might cause communication breakdown in other contexts. Consider the following two utterances, again drawn from students of the School of Environmental Design:

What two factors controlled the development of housing in tropical countries?

*. . . *the fierceness of tropical brainstorms* . . .

**The walls are made of blokes with cement between them.*

The point here is that although the meaning may be quite clear, the teacher would probably want to eliminate errors of this kind. The reasons for this are twofold: firstly these terms, *rainstorm* and *block* are part of the systemic language of Environmental Design and, as such, are likely to be frequently recurring items. It is only appropriate that a professional should handle these tools of his trade correctly and precisely. The second reason is that although communication has been maintained in these contexts, the ambiguity inherent in these errors may lead to breakdown in different contexts.

Once he has decided that an error is significant and should be dealt with, the teacher needs to adopt a repair strategy appropriate to the type of error and the level of the student or students involved. In the case of an error in production, either in speech or writing, the student is often able to correct the error himself once its existence is pointed out. A second possibility is peer correction. This is often an especially effective way of dealing with factual errors. For example, a student may produce a factually incorrect statement as a result of misinterpretation of information presented in tabular form and be corrected as follows:

Teacher: *What's the partial pressure of oxygen in the blood entering the pulmonary capillaries?*
Student 1: *6.0 kilonewtons to the metre squared.*
Teacher: *Do you agree, Ali?*
Student 2: *No, it's 5.3 kilonewtons to the metre squared.*

If further investigation revealed that the first student was still unable to provide such information correctly, the teacher would probably need to give him individual help in this area.

Such correction of one student's factual errors by other members of the class often take place naturally in the course of the lesson without the need for such deliberate intervention on the part of the teacher. The students are normally concerned for accuracy in such matters since they relate to their college studies.

However, the final responsibility for dealing with serious factual error lies with the teacher. When the class are unable to correct significant errors because of a lack of factual knowledge, the teacher may have to provide a conceptual explanation. It is considered important that such an explanation should still be justifiable in terms of the objectives of a given lesson. Prolonged explanations are not usually necessary if a task has been selected appropriately, and if its conceptual aspect is not being overemphasized.

A distinction is also recognized between an inability to explain a concept in English and a lack of knowledge of the concept itself. For example, a student may know the equivalent for *friction* in his mother tongue and be able to cite examples of it and yet be able to explain it. In such an instance a lengthy conceptual explanation on the teacher's part only serves to induce boredom.

Formal errors in oral or written production leading to a breakdown in communication, whether lexical, syntactic or phonological in origin, are also dealt with by peer correction (for example, group editing of written work), or if necessary by direct intervention from the teacher. Repair strategies for errors whose source is syntactic or phonological are discussed later in this chapter in the sections "The teaching of phonology" and "The teaching of formal grammar".

So far communication breakdown has been discussed mainly in relation to problems arising in student production. However, students may also be unable to perform a task satisfactorily because they are unable to cope with a written or spoken input. Sometimes the problem is one of information load, and then simple repetition, whether of an entire video or of a single utterance, is often sufficient to restore communication. At other times the student is provided with new information through rephrasing or restatement which he can use to overcome his difficulty. Such information may for example be presented through exemplification or through the use of additional non-verbal input such as diagrams and pictures. A serious breakdown in communication is often treated by going to source materials such as dictionaries or textbooks. This is especially valuable in that it will simultaneously reinforce the training the students receive in components such as Science Reference where they learn how to use varied resources to obtain specific information.

Finally, at times it becomes apparent that communication has broken down because of an uncertainty over a scientific concept or the linguistic expression of a scientific concept which goes beyond both the teacher's competence and the scope of the task. In such a case the teacher normally refers the students to a reliable source of information, whether reference book or college lecturer, which can provide the necessary elucidation at another time.

In order to carry out the repair strategies described, the teacher must therefore have an adequate grasp both of the relevant conceptual area and of the English grammatical system. An acquaintance with the characteristics of the students' mother tongue may also be useful. However, the crucial skill in this area is the ability to recognize those instances of error which indicate present or potential communication breakdown and to use appropriate strategies to ensure that the errors are dealt with so that performance of the task can be carried out.

4. The need for practice

In any situation where language is being learned it is necessary to provide students with the opportunity to practise that language. Traditionally, this practice is provided by strategies such as repetition and language drills. Task-based learning does not proscribe such strategies if they occur within the context of a task and are an integral part of that task.

For example, students taking part in a Science Activity investigating the relationship between the surface area and volume of solids may have been required to measure the dimensions of cubes of various sizes, calculate the surface area and volume of each and record the data in note form. It is among the objectives of the course that the students must be able to verbalize such data, so the teacher must ensure that the students are given the opportunity to do this. The situation in this lesson can be exploited to provide meaningful language practice by requiring individual students to present the results of their group to the rest of the class, who record this data on a table.

Thus one group might report:

Student 1 *We measured two cubes.*
The sides of the first cube were 2 cm long.
Student 2 *The surface area was calculated and the result was 24 cm^2.*
Student 3 *The volume of the cube was 8 cm^3.*

The second group follows:

Student 4 *The sides of the second cube were 3.6 cm long.*
Student 5 *The surface area was 75.96 cm^2.*

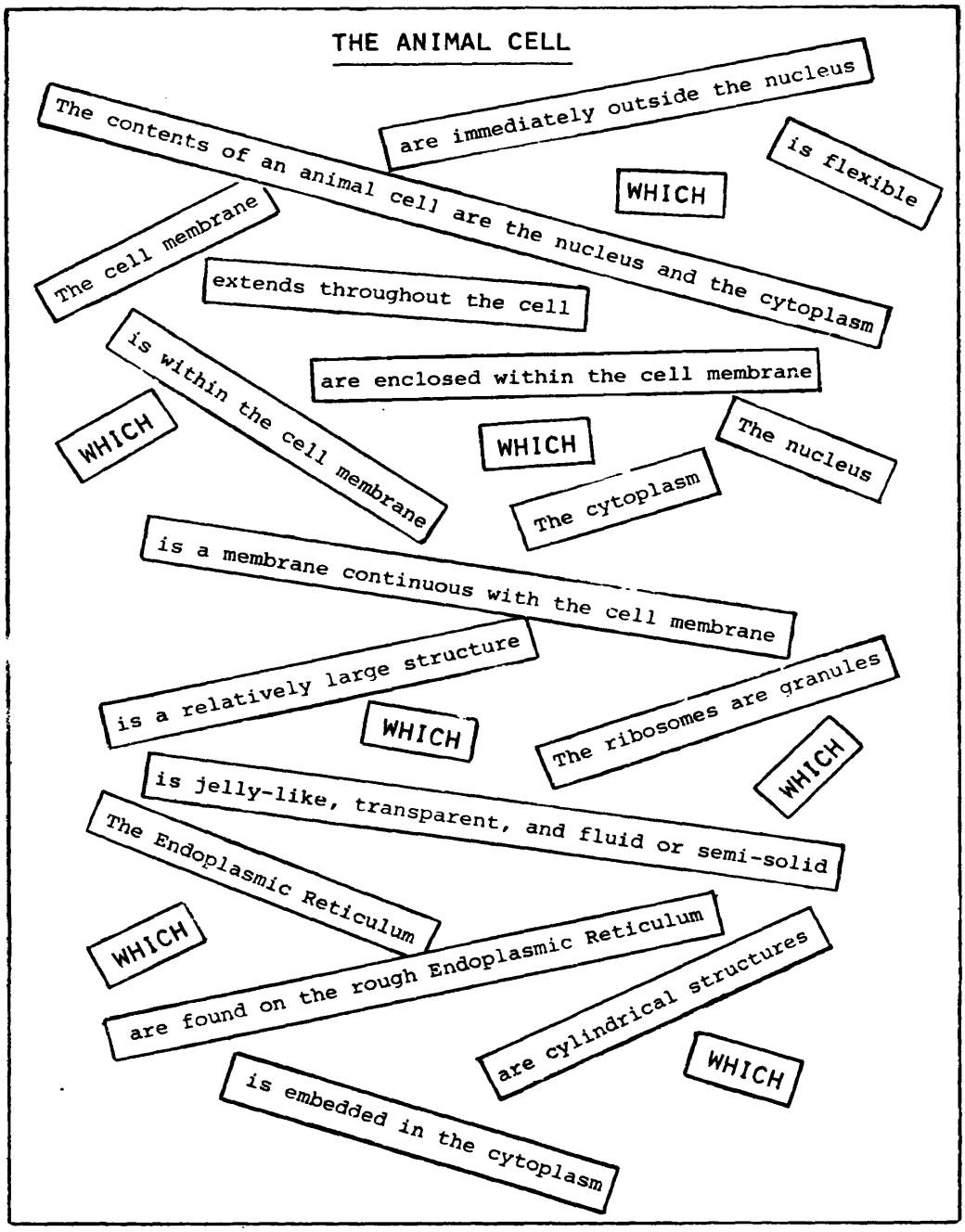


FIGURE 3 *Student material for a jigsaw reading exercise*

Student 6 *The volume of the cube was 46.66 cm^3, correct to two decimal places.*

Another group might report:

Student 7 *The sides of our cube were 5.1 cm long.*
Student 8 *The surface area was 156.06 cm^2.*
student 9 *Its volume was 132.651 cm^3.*

The results of all the groups are tabulated and then used as the input for a graph demonstrating the relationship between the different dimensions. Thus the language practised is meaningful in that it arises from the students' activity earlier in the lesson. It also has a definite purpose: the information given by each student must be presented in such a fashion that it can not only be accepted by the teacher but also, more importantly, so that it can be understood and recorded by the other students in the class and used as the basis for future work. In this situation, not only is language being practised, but also real communication, relevant to the student's main discipline, is taking place.

5. The teaching of formal grammar

Lower-level linguistic skills are dealt with in task-based learning only when they are the source of a failure to communicate at a higher level. It follows that the teaching of grammar becomes relevant only when a failure to operate the grammatical system means that the student is unable to operate the task in question. If this occurs, the action to be taken by the teacher will depend on the nature of the misunderstanding and the number of students involved. It must also be appropriate for the individual or individuals concerned. The approach to the teaching of grammar is thus a matter of judgement. Some situations may be best handled by exemplification. At other times it may be useful to provide more general guidance in the form of the rule relevant to the area of grammar the student is unable to operate. If the breakdown is due to interference, understanding of some of the characteristics of the student's mother tongue may be useful. In some circumstances the most appropriate strategy might even be an explanation of the grammar point given in the student's mother tongue, if the teacher is able to do this.

A breakdown in communication following from the failure of a large number of students to operate an area of grammar correctly will probably need to be dealt with immediately before the students carry on with the task. Such occasions do not arise very often in most classes: the strategy considered appropriate is to present the students with the information necessary for them to operate successfully (any of the methods described above may be suitable), check that they have understood the explanation, and then continue with the lesson

monitoring the students' performance carefully. If student control in this area still seems uncertain the teacher may have recourse to specially prepared supplementary material: normally this is either available for departmental use or prepared by the individual teacher, and although the focus is, in this case, on one aspect of grammar, this is still presented in a context appropriate to the students' discipline. Thus a jigsaw reading exercise (Figure 3) whereby students have to put together sentences and parts of sentences to make up a description of an animal cell may provide additional exposure to the use and meaning of relative clauses in connected text.

More often this type of breakdown in communication occurs for only a small number of students or an individual student. In this case it is more appropriate to deal with the problem outside the lesson in hand. Again the tactics used will vary: the teacher may explain the rule, give examples of its use, provide the student with supplementary material, refer him to units of other components where this linguistic area is covered, or use any combination of these techniques.

6. The teaching of phonology

Since the relevance of all ELC programmes is important, the teacher has to be sensitive to the target situations for which his students are being prepared. Students on the programmes for English medium colleges, for example, are exposed to a variety of native and non-native speakers, and some of their lecturers speak non-standard varieties of English. It is likely that these speakers form a language model for the students in some cases. The aim in the area of phonology is therefore to ensure that a student is able to make himself understood in the target situation for which he is being prepared. In terms of communicative competence, phonemic distinctions are important only in contexts where a failure to produce or receive them correctly will lead to a breakdown in communication. For example, students of organic chemistry must be able to produce and recognise the difference between *alkanes, alkenes*, and *alkynes*, and the difference between *fifty* and *fifteen* is important for all students of science and technology. However, such phonemic differences are concentrated on only if and when a student has perceived the need to develop the necessary skills to handle these distinctions because he has failed to communicate during a task. It is felt that it is only when these conditions are met that the teaching of such phoneme distinctions becomes meaningful.

7. Handwriting

Since the aim of the ELC is for the student to achieve the communicative competence consistent with his needs and since most of our students have already studied English for several years at secondary

school, handwriting is not a skill that gets a great deal of attention. It is not therefore taught specifically as a classroom activity, but help and advice may be given to individual students when necessary. Such help aims to establish basic skills such as writing on the line rather than through the line, consistent size in the body of each letter, consistent slope of each letter, and even spacing between letters and words. In the case of a student with severe problems in this area, the teacher may issue him with materials specially prepared to develop his handwriting skills.

Four – lecture/notetaking

1. Communicative needs

Since the majority of teaching in King Abdulaziz University takes place in the lecture mode the ability to follow lectures in specific disciplines constitutes an important terminal objective of most ELC courses. The lectures attended by students in their Colleges may be totally or partially in English. They are given by both native and non-native speakers of English with varying degrees of accommodation to the student's communicative strengths and weaknesses.

The actual behaviour required of students therefore varies from lecture to lecture, but in general it appears that students may be asked to do some or all of the following during a course of lectures:

- copy down information from the board or overhead projector.
- take down important points and definitions given as dictation.
- take notes on the main points of the lecture.
- ask and answer questions.
- use a handout to follow the lecture.
- retrieve information for future use.

2. The ELC approach

In line with the principles discussed in the first chapter a holistic approach is adopted and students are trained by requiring them all (regardless of their level) to follow a lecture type input.

It may be given independently or it may be designed to fit into the context of a larger task such as a project or topic. It has to be controlled at an appropriate level of difficulty, both linguistic and conceptual. Since the approach is holistic the course designer does not set out to construct artificial texts with, for example, a larger than normal set of discourse markers:

First.....
.....and then.....
Next.....
which therefore.....

There are two reasons why the ELC approach is incompatible with this type of procedure. Firstly, this attitude to language teaching seeks to predict what difficulties the students will have and then systematically sets out to teach these areas of supposed linguistic difficulty. Task-based learning, on the other hand, seeks to establish relevant situations which generate appropriate language. The second related reason for not constructing texts according to the lines exemplified above is that this type of operation is at variance with the notion of authenticity described in the previous chapter. The assumption, then, is that students develop skills in the area of discourse markers by being exposed to them as they occur in authentic contexts.

The object of the exercise is to provide practice in lecture situations of increasing difficulty so that the point is reached whereby the student can deal with the lecture/note-taking demands made of him by his college.

3. Control of difficulty

In order to progress towards the objectives of the course, the difficulty of the tasks has to be controlled and graded without allowing this control to interfere with the principle of authenticity. There are various ways by which this is achieved:

(a) Information density. The regulation of the absolute amount of information constitutes the main source of linguistic control.
(b) Redundancy. Rephrasing and restatements are used to simplify tasks by adding to the redundancy of the message.
(c) Length. It is possible to control either the absolute length of the input or, if faced with the need to present a long piece, the chunks or segments that are presented to the learner. In the case of a video input, this can be done by stopping the machine at natural information boundaries.
(d) Speed. The speed of delivery can be controlled both when delivering a lecture live and when recording a lecture onto video cassette. However, too great a slowing down will probably distort intonation patterns and thus introduce new difficulties. Experience at the ELC has shown that students not only have to, but can, extract information from material delivered at normal pace from a relatively early stage.
(e) Prefocus. An introductory discussion of the conceptual area to be covered constitutes a form of priming. Another useful tactic is directed listening:

Listen for the functions of the kidney.

The *direction* can of course be incorporated into the body of the input:

Today we will examine the functions of the kidney.

(f) Visual support. The amount of visual or diagrammatic support (including overhead projector or boardwork) can make a substantial difference to the comprehensibility of a lecture and the ease of note-taking.
(g) Worksheet. On many ELC courses student worksheets are used to prefocus attention on certain aspects of the lecture, to act as a prop to students during the lecture (especially in the earlier stages of a course) or to store information after the lecture has been delivered.

4. Conduct of the lecture

The aim of the lecture component is to give students practice in understanding lectures and taking notes. The requirement is therefore that the ELC should mirror the general lecture situation as it pertains in the parent college. Thus the ELC lecture is normally conducted formally, the lecture being delivered without interruption with student questions being set aside for the end. In order to help achieve this formal atmosphere two or more classes of students are sometimes combined for the lecture.

5. Tactics for improving student performance

One particular problem is notetaking. Individual notetaking strategies vary, so a narrowly prescriptive approach is avoided. Teachers sometimes introduce students to certain conventions, such as arrows, but it is felt that the quality of a student's notes reflects not only the amount of support given by the teacher but more significantly the importance the student attaches to his notes. The need to create good notes can be created through fostering intrinsic interest in the subject matter and also by ensuring that testing for retrievability is rigorous. Students are tested by short quizzes (care is taken that students are not able to answer questions without listening to the lecture) or recovery sessions in which students produce a written or oral version of the lecture. This may be done individually or in groups. The final criterion for note-taking is considered to be recoverability. Attention may be paid to the handwriting problems of individual students in this context. Practice in diagram drawing and labelling is also helpful, and will be provided in the course of many lectures.

One way of introducing the class to alternative note taking strategies is by asking students to take notes on a transparency and then projecting the transparency and discussing the notes. Note taking models, however, are not imposed since formal note taking strategies are only suitable for some people. Teaching a new system in fact amounts to teaching a new code. There is always the possibility of interference between notetaking and the normal language uses that are being developed the rest of the time. It can be confusing for students to be

admonished for not using articles in one session only to be instructed to drop them in the next. Thus students are encouraged to develop compression strategies of their own, and it is accepted that these may not be the same as strategies that would be adopted by native speakers.

6. Other forms of listening

Before moving on to examine some other components, it is perhaps worth mentioning that on some ELC courses students' listening skills are developed in rather different ways. On the course run for first year medical students, for example, listening is integrated into other activities. In the example given below the student is required firstly to read a piece of text and then, among other activities, to do a number of listening exercises. This is all undertaken in a self-access mode.

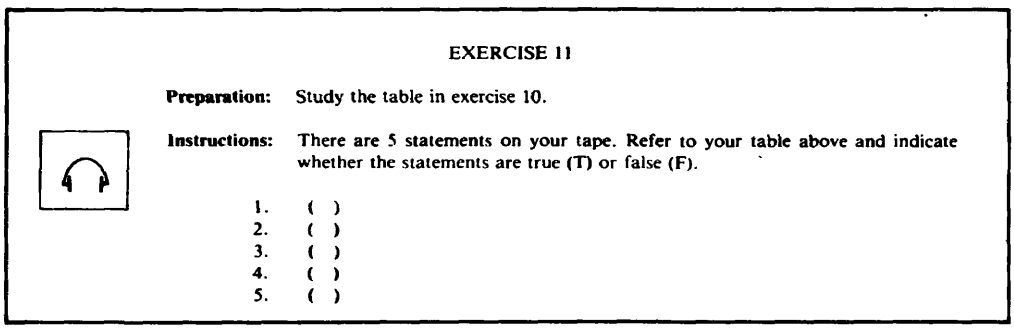


FIGURE 4

In the exercise shown in Figure 4 the symbol ⌒ indicates that the activity is a listening exercise, as opposed to a reading exercise. The preparation exercise is concerned with the numbers of sub-atomic particles in carbon and sodium together with the makeup of their K, L and M shells and the students have to extract this information from a written context and put it in tabular form. The tapescript for the listening exercise is as follows:

Voice 1: Exercise eleven.
Voice 2: **One.** Carbon has four electrons in its outer electron shell.
Two. The electrons of carbon are arranged in three shells.
Three. Sodium has two electrons in its outer shell.
Four. Sodium and carbon have the same number of electrons in their first shells.
Five. Sodium and carbon have the same number of electrons in their second shells.
Voice 1: End of exercise eleven. Stop your tape now.

More advanced listening exercises may involve self-paced note-taking

from lectures presented on audio cassette, or group listening exercises whereby different groups use recorded information on various aspects of a subject as a source of input for discussion at group and class level.

Five – reading

1. Communicative needs

Within the ELC the main thrust of reading components is directed at training students to consult academic or technical texts in English as this constitutes their most important reading need. For some students, particularly those following courses in Arabic medium colleges, the acquisition of this skill may be their chief reason for following English courses. The extent to which students are in fact required to consult English textbooks as part of their undergraduate studies varies greatly from subject to subject, and individual subject lecturers also vary in the extent to which they expect or encourage students to refer to such sources. A variety of strategies have thus been developed in the ELC in order to develop reading skills which are both suitable for the varying needs of different students and pedagogically viable. These will be discussed later in this section under the heading "The provision of adequate guidance and support for the students".

2. The approach to reading for information

The approach to reading for information involves asking students to perform reference tasks of an appropriate level and nature. Among the many skills involved in reading/reference tasks are the ability to deduce the meaning of unfamiliar lexical items, and familiarity with those devices which give a text cohesion and coherence. Students need training in these. However, within the ELC such skills are not developed in isolation from one another. The approach to the teaching of reading is perhaps analogous to the position of a child learning how to swim or how to ride a bicycle. In neither case is it particularly profitable to analyse the activity into its component parts and then seek to teach each individual skill. Rather than this, the activity is mastered by actual performance, each successive performance more nearly approximating to the idealized objective. The equivalent in reading is an appropriately structured task. As reading is likely to be irrelevant unless it is generated by a higher order need, such as a faculty requirement, the aim where possible is to ensure that students work on *real* tasks which are generated by their academic programmes.

There are three major steps involved in the operation of a reading/ reference programme. The need is to:

- present students with suitable texts as inputs
- structure the tasks required of the students

– provide the students with adequate guidance and support

The rest of this section will be devoted to discussion of these three areas.

3. Text selection

There is no need to select texts when the objective of an ELC reading component or course is to help students complete reading assignments that are part of the requirements of their parent programme. The aim is to help the students through structuring their reading assignments in such a way that in time they develop autonomy. The main advantage of working on material which is required reading is that students tend to be sufficiently highly motivated to come to terms with it. However, it is sometimes the case that academic staff in the colleges that the ELC serves do not ask students to read textbooks until they have completed an ELC course. In this situation or where the ELC is asked to assist in the selection of required texts, the choice of appropriate materials is all important.

Two high-level constraints introduced in the previous chapter operate in the selection of texts for use on reading components. The first is appropriacy. The text chosen must deal with topics drawn from the student's field of study and be at a linguistic and conceptual level which is appropriate to the student's course of study and personal development. Secondly, texts should be authentic; that is, they should be acceptable in both language and content to a subject specialist. Subject textbooks at British O, A or university level may meet the above criteria, and target level texts (which tend to be at A or university level) are generally used whenever possible as there is no evidence that texts at a lower level of conceptual difficulty are *a priori* simpler to process. However, even within these limits there is considerable choice: subject textbooks for use on reading components are therefore selected according to criteria such as the following:

(a) The density of information: that is, the absolute amount of information per section.
(b) The cultural suitability of the material and in particular the relevance of the examples to our students.
(c) The author's style. For example, are terms defined? Is the exposition clear? Are the sentences particularly long with large numbers of embedded clauses?
(d) The amount of unfamiliar lexis. An idiosyncratic use of non-systemic vocabulary can cause significant problems.
(e) The diagram to print ratio. Is the book well supported by diagrams? Do they elucidate the text?
(f) The layout. Does the book have section headings? Are they helpful?

(g) The presentation of the book. Is it attractive? What is the size and density of the print? Does the book use colour?

In addition to these points, the selection of a text must also be consistent with the type of task that the students are required to perform. For example, we may want to get students to look up specific items of information such as physical formulae. In this instance there is no reason why target level texts should not be used regardless of a student's present competence. If nothing else this will give them confidence. There is also no point in using anything other than target level texts if the colleges are issuing students with copies of university-level texts and expecting the students to use them. On reading/reference components students are generally asked to perform tasks using actual copies of the books selected. This represents a way in which the students can acquire the mechanics of book use and generally serves to increase their awareness of the relevance of the task.

4. Selection and sequencing of tasks

Within the ELC both the bandsheets and exercise typologies developed for reading courses are sources of information as to the types of tasks students can be asked to perform at different stages of their ELC courses. It is again important that the tasks chosen should at all times be relevant to the student's purpose. For example, it would be inappropriate for most students to remain for long at the level of the word or sentence. If they are only required to answer questions such as:

What is the meaning of indicator in line 4?

there is little point in lengthening the span of text with which they are presented. Unless the objective is low-level data extraction such as:

Find the definition of indicator in this passage.

questions are designed to help the student comprehend the extract as a whole.

The principle of non-triviality, outlined in section five of the previous chapter, also leads to the rejection of exercises like this one, taken from a published source:

> Excessive fluid loss causes dehydration. The symptoms of dehydration include thirst, dry skin and dry mucous membranes, constipation and oliguria. The blood pressure falls and the pulse is weak and rapid. Excessive fluid retention causes œdema. The symptoms of œdema include weight gain, swelling of the subcutaneous tissues, distension of the abdomen, anuria and oliguria.

Answer these questions and complete the sentences.

(a) The symptoms of dehydration include . . .
(b) What causes œdema?
(c) Name some of the symptoms of œdema.

(Nucleus: *Nursing Science*)

Since the questions quoted can all be answered by a process of simple matching without understanding of the conceptual content of the passage. It is also important that whenever possible the behaviour displayed by the student in the performance of a task is similar to that required of him in his target situation.

Consider the following passage:

> Now let us look more closely at the properties of acids and bases. These can be used to provide us with an operational definition of the terms. We have already seen that acids and bases will change the colour of an indicator and that many acids have a sour taste. Most of us are familiar with the sharp taste of vinegar (acetic acid) and the acids in citrus fruits (citric and ascorbic acids). However this is not a very practical classification.

Anaphoric reference skills could perhaps be developed by requiring students to answer such questions as

> What do the words in *italics* refer to?
> 1. *These* can be used . . . (line 1)
> 2. .....

There are, however, other methods of getting students to process text which have the advantage of asking students to do things which might be required of them by their faculty. A question which still hinges on the interpretation of *these* in line 1 but which might be seen as being more relevant to general understanding of the passage would be:

> A working definition of the term *acid* can be provided by examining its_____.

The question of which type of exercise is likely to be more motivating will probably depend on the level of the students concerned. If a group of students is unable to cope with the latter exercise, it may be more efficient in the long run to provide practice in the shape of the former exercise before one progresses to exercises of the definition type.

In ELC courses for colleges which are wholly or partly Arabic medium, such as the College of Science, reading skills are regarded as being of central importance. The majority of students who follow English

courses at the ELC are admitted at around band three, and are expected by the end of their ELC courses to be able to perform tasks at a level of band five or six. Let us examine the type of tasks that these students are required to perform at different stages in a course.

At band three the tasks involved are based upon secondary level texts and operate on text up to the short paragraph chunk. This includes text at the word, phrase, sentence and short paragraph level. The focus of the tasks at band three is on the location and extraction of information. The actual tasks themselves require the ability to read simple tables, charts and diagrams, to scan texts to recognize and identify specific items and to locate and choose the correct meaning of text lexis from an English-L_2 dictionary. Certain exercises will be appropriate for the performance of this kind of task: the labelling of simple tables, charts or diagrams by reference to the text for example, or the completion of sentences with a word or a phrase by reference to either the text or an illustration within the text to take another example.

The band three example given in Figure 5 is taken from an ELC course for students from the College of Science. The student is first required to find the correct diagram in the textbook. This source diagram is similar to the diagram on the student worksheet reproduced in Figure 5, but differs slightly both in the detail and type of labelling used and in the design of the diagram. The student therefore has first to find the relevant information in the text book, then to interpret the diagram and transfer information from it to another slightly different context.

Turning now to the band four level, the level of the text itself remains that of secondary science, but the size of the chunk increases to paragraph level. The focus of the band four task is on the extraction and transfer of information which may involve the ability to extract the key topic sentence from the text, the ability to scan more than one text to select optimum information for a specific purpose, or the capacity to identify and select paraphrase sentences, to take but three examples from the bandsheet for this level. The exercises pertinent to these tasks include the identification or selection of an appropriate first sentence for a paragraph from a series of alternatives, the identification or selection of the main idea of a text or a title for the text, and sentence and paragraph completion exercises.

The exercise given in Figure 6 is an example of what is considered to be a band four task. After the student has found the text to which he is directed, which takes the form of a paragraph on *refraction* in a dictionary of science, he is then required to do the exercise shown in Figure 6.

The text focus at band five is still secondary level but now at A level

Example of Band 3 Task

Find the diagram "Section through a molar tooth" (no. 32) Choose the correct labels for the diagram below from the following list:

pulp cavity	*jaw bone*	*cement*
dentine	*enamel*	*gum*

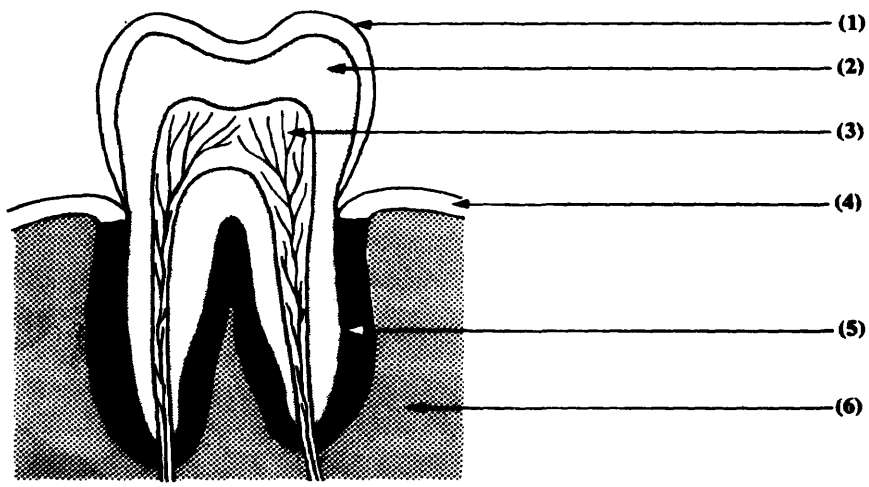


FIGURE 5

while the amount of text on which tasks are to be operated lengthens to a section or short chapter. In terms of task focus, band five concentrates on the transfer and elementary evaluation of information. This may involve the ability to scan or review a chapter in order to answer questions, the capacity to follow up cross-references within a given list of sources, and the ability to analyse a piece of text into main topics and sub-topics. These tasks in turn yield various exercises: the completion of a table summarising information from various parts of a chapter, the reordering of jumbled sentences or jumbled paragraphs and the completion of a summary of a chapter, to again take three examples.

The transfer and elementary evaluation of material at the short chapter level is demonstrated in the band five task in Figure 7. The input is a chapter in an A-level chemistry book.

Example of Band 4 Task

Complete the following

a) The angle of refraction is between the _____ and the _____.

b) The angle of _____is between the normal and the incident _____.

c) Label the point of refraction on the diagram below.

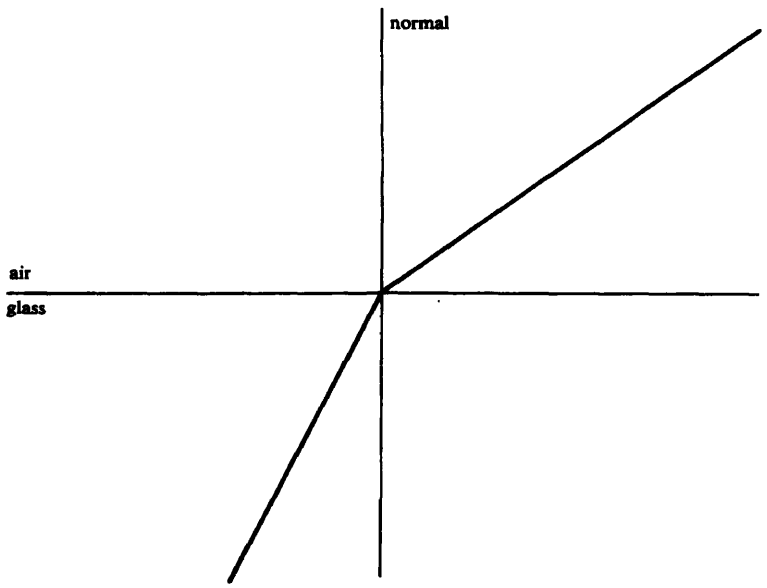


FIGURE 6

5. The provision of adequate guidance and support for the student

Several different ways of organizing the reading component are used in the ELC. Strict adherence to the principles of task-based learning leads the course designer to organize the reading component on a self-access basis. In this case students work at their own pace through a bank of sequenced materials with the teacher providing help and advice on an individual basis as and when that assistance is required. The sequence of materials may be the same for all students, so that individual students vary only in the order in which they work through the materials, or a large bank of materials may be available from which individual students select those which relate to their chosen discipline and interests. There are obvious advantages to this approach in that problem areas receive attention only if and when they interfere with individual students' performance of a task. Also the freedom of choice of

Example of Band 5 Task

Put the following statements in the order in which they appear in Chapter 13. Then write the name of the subsection in which they are found. The first two have been done for you.

ORDER	STATEMENT	SUBSECTION
———	Fluorspar is the main source of fluorine.	Fluorine
———	Oxidation is the opposite of reduction.	Reduction
———	The halogens are electronegative elements.	
———	Hydrogen iodide is a hydrogen halide.	
———	Potassium iodide is often added to NaCl as an aid to the thyroid gland.	
———	The reaction of sodium and chlorine is violent.	
———	In the electrolysis of hydrochloric acid, chlorine ions form at the anode.	
———	Chlorine and yellow phosphorus form phosphorus pentachloride and phosphorus trichloride.	
———	In the electrolysis of sodium chloride, chlorine is found at the anode.	
———	The downward delivery method in the collection of chlorine is based on the fact that chlorine is heavier than air.	
———	The reversibility of hydrogen and iodine is represented by $H_2 + I_2 \rightleftharpoons 2HI$	
———	Iodine reduces chlorine and bromine. Chlorine and bromine oxidize iodine.	
———	A particle can gain electrons by a purely electrical process.	
———	When oxygen combines with another element, it causes the removal of electrons from the element.	
———	Dibromoethane, CH_2Br, is a compound of bromine and carbon which is used as an additive to petrol.	
———	The oxidation of an element by an electrical process is useful because no unwanted by-products are formed.	

FIGURE 7

text and task offered to students by this system appears especially relevant in cases where students following the same English course may be studying different branches of a discipline or (as happens on courses run for colleges which use the credit system) for students who may be at different stages in their college studies.

An example of this type of approach is given in Figure 8: the input is a university-level mathematics book and the task, which is at band six level, would only be attempted by students majoring in maths.

In spite of the very real advantages of this type of approach, it has been found that in the ELC context it may not always be the most suitable way of organizing the reading component. There has been, on occasion, strong negative feedback on the self-access nature of such courses. In some cases this type of course appears to be too far removed from the previous learning experiences of the students and from their expectations of what a language lesson should consist of. On these occasions

Example of Band 6 Task

Fundamentals of Algebra and Trigonometry — E W Swokowski

Chapter 2 Equations and Inequalities

4. Look at these conditions:

a) If we only allow rational numbers.
b) If we allow real numbers.
c) If we allow complex numbers.

Under what conditions do the following equations have empty solution sets? Circle the appropriate letter(s)/word.

x^2	=	2	a;	a	and	b;	a,	b	and	c;	none
x^2	=	-1	a;	a	and	b;	a,	b	and	c;	none
2x	=	3	a;	a	and	b;	a,	b	and	e;	none

5. Read the paragraph beginning "One method...." on page 56. Write down the four operations which can be performed on an equation in order to replace it with a simpler one.

1. _____

2. _____

3. _____

4. _____

In Example 1 on page 56 which operations have been performed on the equation 2x - 5 = 3?

1. _____

Why? _____

2. _____

Why? _____

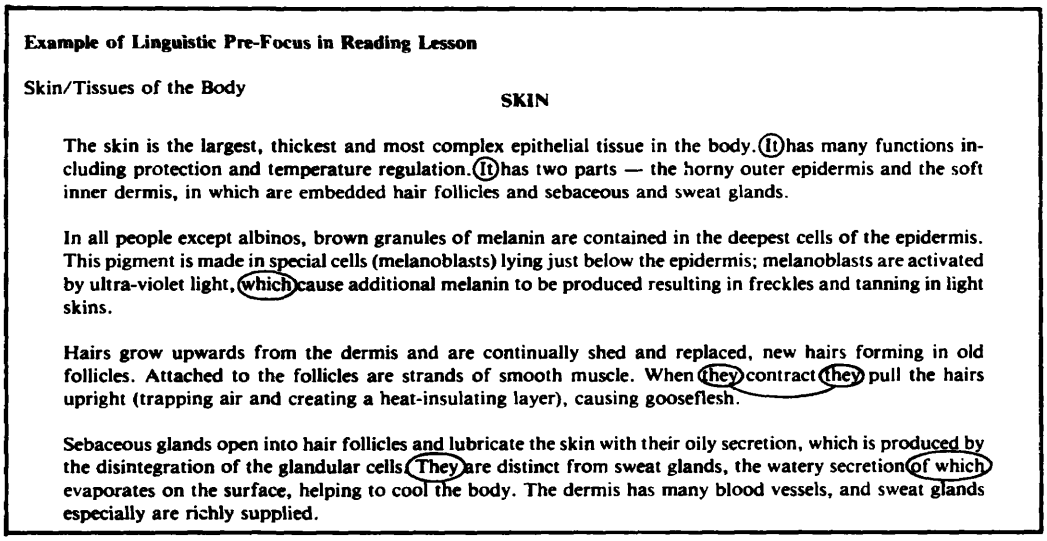
FIGURE 8

efforts have been made (in both the L_1 and the L_2) to explain the advantages of this type of organization but students have, in many cases, continued to feel that they would find a teacher-centred approach more useful and motivating.

Depending then on the level and maturity of the students, some ELC courses have adopted a more traditional ESP approach to the reading component. In this case the teacher is more centrally integrated into the learning process in the sense that it is less the student being responsible for his own learning activities than the teacher being responsible for the activities of the group as a whole. In this type of organization a representative sequence of reading activities might be:

1. conceptual priming
2. linguistic pre-focus
3. silent reading
4. exploitation exercises
5. discussion.

Merely as an exemplification of this type of approach an overhead transparency that could be used in step No. 2 above is given in Figure 9.



Example of Linguistic Pre-Focus in Reading Lesson

Skin/Tissues of the Body

SKIN

The skin is the largest, thickest and most complex epithelial tissue in the body. (It) has many functions including protection and temperature regulation. (It) has two parts — the horny outer epidermis and the soft inner dermis, in which are embedded hair follicles and sebaceous and sweat glands.

In all people except albinos, brown granules of melanin are contained in the deepest cells of the epidermis. This pigment is made in special cells (melanoblasts) lying just below the epidermis; melanoblasts are activated by ultra-violet light, (which) cause additional melanin to be produced resulting in freckles and tanning in light skins.

Hairs grow upwards from the dermis and are continually shed and replaced, new hairs forming in old follicles. Attached to the follicles are strands of smooth muscle. When (they) contract (they) pull the hairs upright (trapping air and creating a heat-insulating layer), causing gooseflesh.

Sebaceous glands open into hair follicles and lubricate the skin with their oily secretion, which is produced by the disintegration of the glandular cells. (They) are distinct from sweat glands, the watery secretion (of which) evaporates on the surface, helping to cool the body. The dermis has many blood vessels, and sweat glands especially are richly supplied.

FIGURE 9

Overhead transparencies of reading texts are a much-used methodological tool at the ELC, and are used in a number of ways. During classroom analysis of the text the OHT is used to direct the student's attention to specific items in the text. In the example in Figure 9 certain grammatical links have been highlighted by being circled, and these will then be exploited by the teacher in the linguistic pre-focus stage of the lesson.

A third approach to reading can be discerned in other courses run by the ELC. In some cases student needs will be more wide-ranging and may embrace all four language skills. In this case the reading component may be integrated into a cycle of activities both supportive of the reading text as well as other activities derived from it. Figure 10 shows how reading can be organized as an integrated activity and is drawn from the teacher notes relating to the teacher-led component of the course run for the College of Science.

INTEGRATED SKILLS UNIT: BIOCHEMISTRY		TEACHING PLAN
MATERIAL	ACTIVITY	DAY ONE
Video s-sheet 1 (Biochem. 1)	Pre-focus: students read through question 1-4 on s-sheet 1 and pencil in answers where possible.	
Video: Biochemistry 1 (to end of section on carbon, barium and sulfur)	Video showing: students watch and complete or check answers to part A. Oral check by teacher.	
	Language practice: practice of *greater than, less than, different from, the same as* based on figures in table on barium, sulfur and carbon.	
'Matter' booklet p 29 First passage	Reading: passage read aloud by teacher or students.	
	Sentence correction: Part B of s-sheet 1. Feedback on bb or wb. (if time) further language practice based on boxed words in part B.	
		DAY TWO
Video: Biochemistry 2 s-sheet 1.	Pre-focus: discuss *a molecule of water* (revision of lexis from 'Matter').	
Video: Biochemistry	Video showing: second part of video. students watch and complete qu. 1 and 2. check orally or on bb or wb.	
Matter P 29: 2nd Pass.	Reading: Passage read aloud by teacher. Elicit meaning of *thermal agitation*	
	Students do part B of worksheet. Discuss answers using OHT of passage.	
	(If time) discuss use and function of discourse markets *whereas/however/in contrast* etc. (In Ex B).	
	Students underline words and write in dictionaries.	

FIGURE 10

Six – discussion

1. Communicative needs

It is important in some English-medium colleges for students to develop spoken English skills. For example, it is a tradition in medical education to require students to present a short exposition on specified topics. This is sometimes followed by questions and group discussion. A

similar type of behaviour is required during oral examinations and in some cases in tutorials. Consequently discussion activity on the Medical programme is designed to meet these needs. A student in the School of Environmental Design, on the other hand, has to present a justification for the choice of a particular design to his peers and lecturers who constitute the *jury* and this determines the nature of one of the discussion activities within the ELC/SED programme.

2. Establishing the background

If a student is to take an active and constructive role in a discussion he must be able to follow the discussion. The ability to do this is to a certain extent a function of his knowledge of the subject being discussed. Although topics relevant to the student's field of study are chosen it is sometimes still found that the student lacks some of the necessary background. If this is the case then the background is established by use of one of the following types of input:

Text

A traditional form of discussion input is text. However, there are two particular pitfalls in using this type of input. One is that the discussion becomes an exercise in decoding the text itself. The other is that the discussion remains inward-looking and centred on the text. This may be appropriate with students up to band four but if freer-ranging discussion is the objective other types of input may be more suitable.

Data

Interesting and relevant data presented in tabular or other forms can be a useful springboard for discussion.

Visual inputs

Film, video programmes and slides are all methods of presenting or providing a common experience. One advantage of using visual inputs is that differences in individual perception allow for the possibility of creative language use and discussion which leads outwards.

Student-researched inputs

Students are sometimes set the task of gathering information which is then presented to the class. Generally it is so organized that all members of the class contribute. One method is a task set out on a workcard, followed by group or individual presentation and general discussion. One advantage of this is that students remain fully involved at each stage, and that the element of preparation encourages less confident students to contribute.

Discussion arising out of another component

Discussion may be part of a larger cycle of teaching, the individual parts of which are thematically related. The advantage of this is that in this case a specific effort to establish the background need not be made.

3. Operating the discussion

The teacher's role in a discussion lesson is to guide and influence the proceedings with a minimum of personal intervention. Types of elicitation techniques which encourage further discussion rather than a yes/no response are appropriate here (see the previous chapter). The amount of teacher correction during the session itself is limited since constant interruptions inhibit fluency and may discourage weaker students from contributing at all. Instead the teacher makes notes of significant errors as they occur so that they can be attended to after the lesson. In some cases he may help students formulate what they want to say in a linguistically appropriate form. This may be done using the type of expansion technique employed by adults with young children. For example, a student may produce:

Gold substance . . . not alloy.

This utterance may be expanded by the teacher in the following way:

That's right. Gold is an element. It's a pure substance. It's not an alloy.

Since the object of the lesson is to encourage productive skills, the teacher's main responsibility is to encourage as many students as possible to participate. Groupwork is an effective way of increasing the level of participation. A group which has been given a joint assignment (for example, SED students may be told to list what they would want to find in an airport transit lounge) will have to discuss it between themselves. The groups may then be required to report to each other themselves. The use of English at this stage will be greatly encouraged if the students are given a clearly defined task whose physical output must involve the use of English (e.g. the list referred to in the example just given) and if they are aware that this output must be presented to the rest of the class and the teacher in English. Even at class level students may break into their L_1 when discussing really controversial subjects: at this stage it is appropriate for the teacher to step in, ask for a résumé and then guide the discussion more closely until the use of English has been re-established.

Seven – science activities and project work

1. Design and principles

The Science Activity, in context of the ELC, is akin to a laboratory practical session as it would exist in a traditional tertiary level science

course. The parallel is not, however, an exact one since the Science Activity is chosen and structured to generate language rather than to teach science *per se*. In effect this means that in the course of performing a science experiment the student may be required to understand written and oral instructions, to elicit information and seek clarification, to provide answers to oral and written questions, to record and retrieve scientific data and to discuss the procedures followed, the data obtained and the conclusions arrived at.

Project work demands of the student similar linguistic behaviour but operates in a non-scientific context as, for example, on the programme for the School of Environmental Design where an early project requires the student to collect a series of photographs of buildings and then to identify each building and describe its location and function. The lecture, reading and discussion components will feed in the requisite language items, for example, *villa, shanty, mosque, office-block, residential, commercial* and other similar items.

The end product of both the Science Activity and the Project is some form of written report and this, together with the other language operations practised on the component, means that the student is drawing on skills developed on other areas of the course (see Figure 11). As such, these components operate at a very high level of focus.

2. Selection of tasks

The basic principles by which suitable tasks are selected for a Science Activities or Project component are the usual ones of authenticity and non-triviality, and the effectiveness of the task in generating useful and appropriate language. Because of this, the conceptual content and sequencing of the tasks that make up the component will not conform exactly to any syllabus for science or environmental design, but may appear to be random. The point, however, is what language will arise out of the activity and how wide a coverage will be achieved by the sequence of tasks selected.

These are other practical considerations which influence task selection such as the suitability of the necessary apparatus and equipment for group work and ease of management and control for the teacher. There are also, obviously, sound reasons for selecting those tasks that are interesting and motivating for the students.

3. Controlling the activity

A major source of control is constituted by the student worksheets. These are designed so that the students cannot carry out the activity without processing the language in them. In the early stages of a

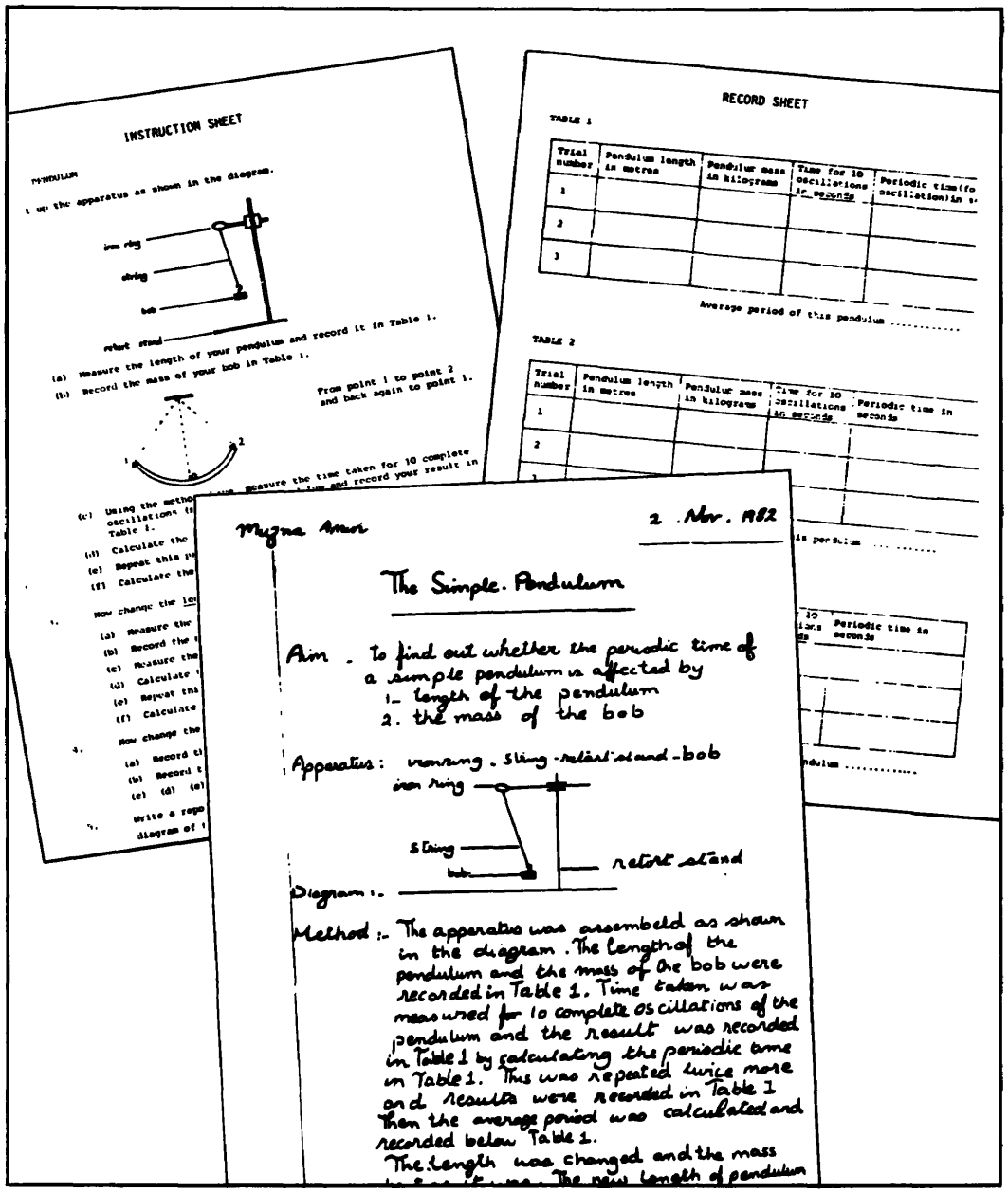


FIGURE 11 *Science Activities worksheets and a student's final written report*

course, worksheets that require some form of written response from the student are also used. Since the aim of the Science Activity is to establish a situation in which language is actively generated and decoded, and since the instruction sheet is part of this process, teachers are warned against showing the students how to do the experiment.

Central to the whole idea of the Science Activity is that the student should process the language of the worksheet and then do the experiment himself.

Before the students start working in groups the purpose of the activity is established and the students are introduced to any new apparatus and to the aim of the activity. Since the purpose is to develop productive as well as receptive skills this stage is carried out through elicitation and discussion rather than by feeding the class with the names of the apparatus and the purpose of the experiment. The ELC thesis that people learn to do something by doing it has clear implications for the way a Science Activity should be organized. Both teacher demonstrations and science activities performed by large groups of students are avoided since both mean that a high proportion of the class will be observers. Thus the usual practice is that after the initial discussion of the purposes of the activity and any new apparatus involved, the students work in groups of three. This means that in a laboratory situation one can be reading the instruction, another can be handling the apparatus and a third can be recording the data.

While the students are doing this the teacher circulates and controls the activities. His participation ensures that English is used and provides a stimulus to further discussion. His contributions are more likely to be questions such as:

What is the temperature now?

or:

Why do you think x decreased?

rather than:

Where is the bunsen burner?

or:

What are you doing?

It is considered that the language practised should always be both appropriate and authentic. Thus:

Where is the liquid?
The liquid is at the bottom of the test tube.

do not constitute normal scientific discourse in that they do not provide for any propositional development and, as such, are avoided. One strategy that is particularly useful for stimulating real discussion both at group and class level is for the teacher's questions to focus on the results obtained by the student groups, requiring students to justify their accuracy or validity, and to account for variations in the results of different groups. Students are encouraged to draw conclusions or at

least to think about possible conclusions that can be discussed in class before the report is written. Suitable questions aimed at the drawing of conclusions might be:

Why do you think x happened?
What do you think was happening to the atoms/molecules of x?

Finally, a linguistic pay-off is also available through the discussion of experimental error. Many ELC experiments have a significant amount of error and students may be asked to point out scientific bias and possible ways in which this may have affected their results.

Eight – integrated work

Some ELC programmes have adopted an approach whereby some or all of the tasks done in different environments are integrated under a conceptual heading. In the programmes for the Faculty of Medicine and the School of Environmental Design this is typified by topic work. This, like Science Activities and Project work, is at a very high level of focus and has been found to have many methodological advantages.

It permits the recycling of language which has been presented early in the teaching cycle, as described earlier in this chapter (section three above). It allows the student to concentrate on acquiring new skills, since he does not need to establish a new mental set each time he comes to class. Once a programme has developed a bank of topics they are used on a modular basis so that the teacher can select topics of particular relevance to students at different stages of their course. In addition, topic-based material constitutes resource material which can be adapted to the level of a particular group of students. It is flexible in that it is the teacher who determines the rate at which students progress through a topic. A teacher may also choose to concentrate on skills in which students display particular weaknesses. Within the topic, it is possible to flow naturally from one type of communicative activity to another so that discussion, for example, arises spontaneously out of the content. Also, although all task-based learning will by definition be relevant to a student's studies, topic work gives immediate relevance to ELC activities as well. For example, a student's reading contributes directly to his ability to take part in the discussion which follows. He thus has a reason for reading.

The details of integrated work vary from programme to programme and because of this variation no general description of classroom procedure will be given here. In principle, however, topics consist of an input phase in which students are presented with the language and concepts they require for the work which follows. The aim is always efficiency of presentation using a variety of media including video, film and tape–slide programmes. After this the aim is to get the students to use

the body of language associated with the concepts. On some programmes a relatively structured situation where students are helped to write a paragraph based on a diagram or an examination-type question is followed by a discussion where the emphasis is on freer and more creative language use. The example below outlines a project approach used in the English course run for the School of Environmental Design. The tasks involve the students in a large body of concepts, language and a number of different physical realizations:

Example of Project Approach in course for School of Environmental Design

TASKS

(a) **Project**

Making a study of 2 buildings – 1 old and 1 new – drawing sketches or taking photographs of the buildings. Describing each building, stating the materials used and what the materials are used for. Displaying the study on large card (e.g. 80 cm × 60 cm).

(b) **Lecture**

(i) Taking notes from an informal lecture on the unit topic, of lower secondary school level, being of low information density and of 15 minutes length, delivered with shortened utterances and lengthened pausing but with otherwise natural, though not rushed speech speeds; illustrated by view(s) of building construction, the teacher writing title – headings – considerable information on the board.

(ii) Describing contents of lecture afterwards.

(iii) Studying and rewriting notes at home.

(c) **Reading**

Summarizing information from a linguistically simplified text on the topic, of lower secondary level and about 1 page long, after some prior topic discussion and reading comprehension preparation in class.

(d) **Oral/Discussion**

(i) Jury, each student making a jury presentation of his project work, talking for about three minutes.

(ii) Participating in specific social/classroom interactions, as required.

(iii) Participating in whole-class discussions on topic of unit when desirable (e.g. in connection with lecture and reading).

(e) **Writing**

(i) Providing title(s)/heading(s)/labelling/captioning for the project work.

(ii) Writing a report on the project with a length of not more than 1 side of A4 paper, and mounting it on the card alongside the illustrations.

PRACTICE

Section 1

English Course for First Year Medical Students

Janet McAlpin

One – current design

Courses in the College of Medicine and Allied Sciences are given, with only a few exceptions, in the medium of English. Students are thus required to follow the curriculum in English from the beginning of the first year onwards. In addition, the college requires them to graduate with a level of English sufficiently high to enable them to undertake postgraduate studies in Britain and the USA.

The ELC programme for this college is most intensive in the first year, when English constitutes about 40% of the syllabus. At the end of their first year students may:

(i) proceed to second year studies in Medicine
(ii) proceed to second year studies in Medical Technology (men) or Nursing (women)
(iii) repeat the first year curriculum
(iv) discontinue studies in the college.

Performance in English is a contributing factor in these college decisions and it is judged on information from continuous assessment by class tutors and two formal exams. Second year students are offered a further 30–120 hours of English tuition, depending on their specialization. To date no further ELC courses have been provided for undergraduates, but informal assistance is available to students in later years, and formal tuition is offered to graduates preparing for international examinations in English.

The annual intake in the College of Medicine and Allied Sciences has settled at around 250 students, distributed more or less equally between the men's section and the women's section. As all courses in this college are obligatory, all first year students must take the English course. At the beginning of the academic year they are divided, for

English, into classes of 10–16 students and the major teaching responsibility for each class is allocated to one tutor. Apart from exceptional circumstances, therefore, class and tutor continuity is ensured for the whole year and only the vagaries of student attendance interrupt this continuity.

Now in its ninth year, the first year English course has a history of sustained development. The current disposition of time, components and specific teaching materials reflects the most feasible accommodation of college organization, pedagogic objectives and ELC resources. The course is stable, but not static: course development will continue as long as course implementation is pursued with vigilance and scope for healthy experimentation.

The weighting and timing of the 1983–4 course is the result of a year-by-year search for a workable balance of science and language studies in the college's first year curriculum. It is scheduled for approximately 400 hours in two phases. In the first phase, corresponding to roughly one semester, two thirds of the allotted hours are distributed on a college timetable which includes practical and theoretical work in Biology, Physics and Chemistry (of which Biology has been observed to be the most language-intensive). In the second phase the remaining hours are spread more thinly over a revised college timetable to which additional science lectures have been introduced. As, unlike other colleges at KAU, this college operates on a one-year rather than a semester system the distribution of hours summarized in Figure 12 is flexible and varies proportionately from year to year according to college and calendar exigencies.

The summary also indicates the distribution of the six basic components of the course. Four of these components comprise the bulk of the work done in the *Intensive Phase* and are replaced by a more comprehensive component in the *Servicing Phase*. One component is continued throughout the course.

The nature and content of these components has been arrived at through the process of trial and error predicted in the original proposal for ELC course development and described in section four of this chapter. This history is preceded by a statement of current course objectives in section two and a description of the current course components in section three.

Two – course objectives

The course aims to provide first year students of the College of Medicine and Allied Sciences with the language skills necessary for them to successfully follow their English-medium curriculum, initially with

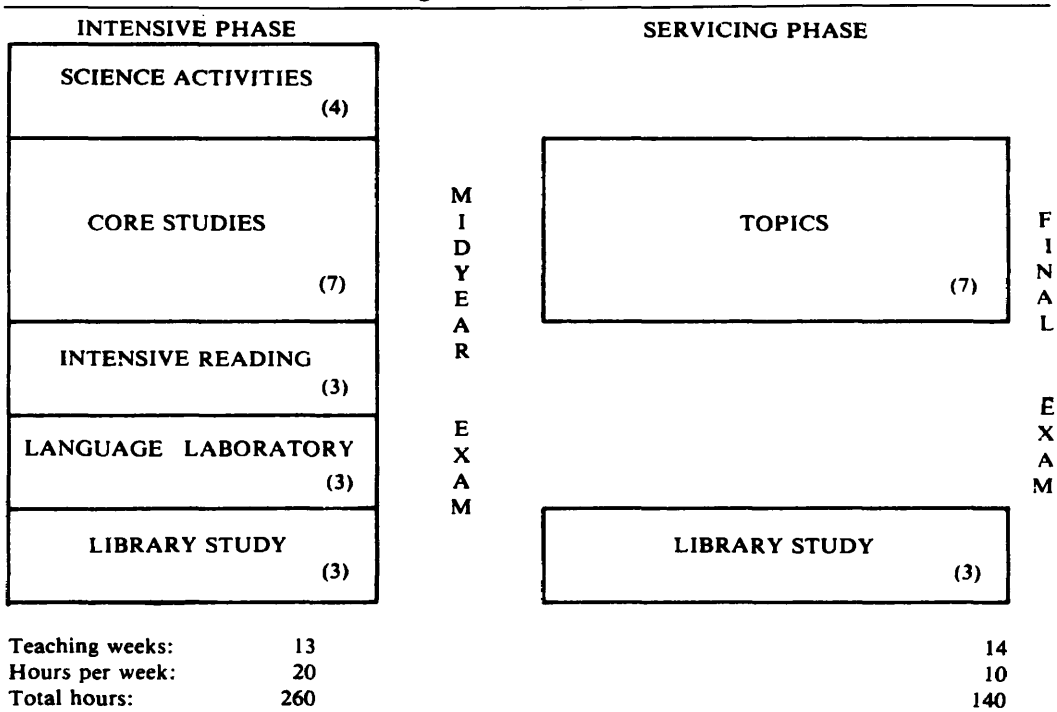


FIGURE 12 *Summary of first year Medics course organization*

ELC support and ultimately in relative independence. Detailed objectives are defined in terms of the needs of first year students as follows:

Objective 1

In the context of a first year laboratory practical, students must be able to:

1.1 carry out a series of operations following instructions given orally or in writing
1.2 record instructions given orally and use these to carry out a series of operations
1.3 read and record measurements and other data in the required form in the course of performing an operation
1.4 ask and answer questions orally, and discuss with the tutor the procedure followed and observations, hypotheses and conclusions made
1.5 write a report on the experiment in the conventional form including diagrams, graphs and tables where necessary.

Objective 2

In the context of a lecture on a subject associated with the first year

curriculum, students must be able to:

2.1 follow the main points
2.2 record the main points
2.3 copy down information and diagrams from board or OHP
2.4 take down dictated information
2.5 relate lecture handouts to information given orally
2.6 ask and answer questions where necessary
2.7 follow question–answer interchange between the lecturer and other students.

Objective 3

In the context of the reading assignments required, students must be able to:

3.1 find information on a given topic in the texts recommended using index, chapter headings etc
3.2 extract information from text and visual representation and relate one to the other
3.3 note down information for future use.

Objective 4

In the context of written assignments, tests and examinations, students must be able to:

4.1 understand questions in written form and carry out the linguistic operations necessary to answer these questions
4.2 draw and label diagrams, complete tables, and make graphs on a known subject or from a given input
4.3 write on a known subject in continuous prose up to short essay length.

Objective 5

In the context of general communication with the staff of the college, students must be able to:

5.1 take part in general conversation with the staff of the college on subjects associated with the content and administration of the Medical curriculum.

Three – course components

The first year English course initially caters for the students' immediate needs in adjustment to an English medium curriculum. Many of the skills involved must be acquired rapidly during the first weeks of the year. However, continued practice and reinforcement is necessary if

the skills gained in the early part of the year are to be maintained and developed. Hence the division of the course into two phases.

The five separate but interrelated components of the *Intensive Phase* are *Science Activities, Core Studies, Intensive Reading, Language Laboratory* and *Library Study*. These are designed to help students to acquire the skills necessary to participate in laboratory practicals and to follow the early lectures and reading assignments of the curriculum. The science content of these components is drawn partly from what the students have already covered in secondary school in the medium of Arabic and partly from the first year syllabus of the college.

In the *Servicing Phase* the continuing component *Library Study* and a sixth component *Topics* aim to develop language skills through a series of study units closely related in content and timing to specific areas of the science syllabus. Although this match is closest in the *Servicing Phase*, the reliance on the science courses of the curriculum to indicate the selection and level of the science content on which the language materials are based is fundamental to the nature of the English course.

A description of the six current components follows:

1. Science activities (intensive phase)

In this component, which is closely related to the laboratory practicals (see objective one above), students perform a series of simple science experiments in the classroom or science activity room. Working in small groups, they follow oral or written instructions on the organization of the experiment, set up apparatus, collect and record data, discuss and evaluate their results, and make a written report on the activity. The twenty activities are in five levels ranging from simple activities such as naming, drawing and labelling apparatus to more complex ones which the students are required to perform and evaluate with decreasing guidance.

By the time they have reached level five the students should be familiar with the language of the practical class and be able to discuss their experiments confidently in the medium of English. They should also be able to write a science report on an experiment they have performed in class.

2. Core studies (intensive phase)

This component develops skills needed for lectures and written assignments (see objectives two and four above). It consists of twenty units, each based on a short video programme on a subject associated with the early part of the college science syllabus. Supporting

worksheets guide the students towards the extraction and recording of information from the programme. Notes and diagrams are then used to stimulate oral discussion and practice of the language associated with the subject. Most units are completed with a writing assignment based on the content of all or part of the programme.

3. Intensive reading (intensive phase)

In this component students are trained in intensive reading skills to enable them to complete the required reading assignments from their textbooks (see objective three above). These skills include recognition of grammatical and semantic relationships within and between sentences, an understanding of text structure and an ability to make inferences from given information. The twenty texts are selected according to topic and graded into three levels. The students do a variety of exercises, some individually and others involving groupwork and discussion with varying degrees of tutor guidance.

4. Language laboratory (intensive phase)

Students need to be able to ask and answer questions orally in many contexts – the laboratory (see objective one), the lecture (see objective two point six), the oral examination and in informal sessions with faculty staff (see objective five). Initially, many students are dependent on classroom practice to give them the confidence to speak in English elsewhere. In class, however, time for individual oral practice is limited. The language laboratory offers individuals a better opportunity for intensive practice of oral skills in relative privacy.

Work offered in the language laboratory consists of ten units. Each unit includes oral practice of discrete sounds, phrases and sentences, reading aloud of printed texts and the production of communicative discourse. The exercises are related to the *Core Studies* and *Intensive Reading* components in content. Students work either individually or in pairs under the supervision of the tutor in attendance.

This component aims directly at the development of speaking skills. It also relates indirectly to improvement of listening and reading skills, since the ability to recognise sense groupings in English, remember lexical items and extract relevant information can be aided by both receptive and productive practice in the association of written forms of English with their spoken forms.

5. Library study (intensive and servicing phase)

Library Study constitutes over 20% of the first year English course and continues throughout the course. The component is designed parti-

cularly to help students cope with their lectures (objective one) and reading assignments (objective three). The work normally takes place in a library or resources area where students have access to self-pacing exercises designed to develop listening and extensive reading and reference skills. Another important aim of this component is to train the students in self-reliant working habits. The exercises are graded to allow individual students to work at their own level and answer keys are available for self-correction. Tutors monitor student progress and give help to individuals where necessary.

6. Topics (servicing phase)

After the intensive phase the emphasis of the English course is chiefly on providing support for the lectures and practical courses of the College of Medicine. The content of these courses is exploited for language teaching purposes in a series of units known as *Topics*. For each *Topic* an area of scientific content is selected and exploited in a variety of ways: through reading passages, audio-visual programmes, writing, research work, discussion, or any combination of these. A balance is sought between controlled, convergent language work and more divergent discussion.

The content areas for individual *Topics* are selected on the following basis:

(a) language forms a significant dimension of difficulty
(b) the content includes a body of language which can be extracted and satisfactorily covered in the time available
(c) the language acquired is transferable to other areas of content
(d) the content allows exploitation of a variety of language skills
(e) it also permits a balance between the recycling of areas of language previously covered and the introduction of new material
(f) the content has sufficient flexibility to cater to the language needs of students of a wide range of abilities.

The *Topics* are taught throughout the servicing phase. At the end of this phase students should be able to perform band six tasks as specified on the appended band descriptions for *Reading, Writing, Listening* and *Oral* skills. More able students will have had the opportunity to attempt more advanced tasks at band seven or even band eight level (see Appendix).

Four – component history

What began in October 1975 as a joint course for students of Engineering and Medicine has resulted in two distinct and substantial English programmes. Few threads link the present first year Medics

course directly to the design projected in the Birmingham pre-sessional workshop of September 1975. Yet the development of its six current components has been an uninterrupted process of writing, teaching, re-writing and re-teaching since classes began. During that process there have been false starts and red herrings – trial solutions to perceived needs. A match has gradually evolved between the content of the English course and the content of the science curriculum, and between the skills practised in English and the skills actually required by the students in their science studies. This evolution has involved a search for appropriate levels of science content, linguistic level and task difficulty. It has resulted in the adoption of the academic principles outlined in the first chapter and the methodological approach described in the previous chapter and one consequence has been the synthesis of earlier, experimental course fragments into fewer, holistic, integrated course components.

The chart of component development (Figure 13) indicates that there were two major components conceived in Birmingham. One was a set of *Study Skills Modules*, each to consist of a number of listening, notetaking, reading, writing and grammar exercises based on a central theme, and a *Communication Skills Laboratory*. The former were short-lived; the prototype modules proved to be ill-matched to the topic interest and linguistic level of the first year students and modification was not justified in view of the fact that both students and teachers found these lengthy teaching packages cumbersome. The latter, however, developed steadily into the current *Library Study* component.

1. Self-study materials

The concept of a self-study component, by whichever name, has retained its attraction since 1975. In essence its development reflects a search for relevant texts, both printed and recorded, and a repertoire of appropriate exercises through which to offer students useful practice of information-extraction. A handful of the earliest materials survive, but most have undergone revision if not replacement during the intervening years. A characteristic focus of revision has been the nature of the sources on which the self-study work is based. Colourful children's science books, for example, proved entirely unsuitable as introductory readers: their scientific naivety detracted from the pedagogic value of their linguistic simplicity. Popular science publications were similarly introduced when the programme began but their role was gradually minimised in favour of chapters from the reference books recommended on the college courses.

This phasing out of popular texts and phasing in of academic sources was part of the search for relevance. It proved to be the case that, while popular general science texts promised to be linguistically more

accessible to the students as material for language practice, conceptually they failed to satisfy. Student motivation was observed to decrease when a subject bore no relation to those encountered in the science curriculum. In this component, the strategy eventually devised to bridge the initial gap between the conceptual level preferred by the students and their linguistic handicaps is twofold. First, an introduction to the core language of four major science areas (biology, physics, chemistry and maths) is presented in the form of ELC booklets. Each of these booklets is accompanied by a workbook and a cassette, and the objective of these self-study packages is to equip the students promptly with the wherewithal and confidence to approach the English of their recommended science course books. Then students are introduced to a bank of worksheets designed to guide them towards efficient information extraction from relevant academic sources. Tasks range in difficulty from simple skimming and information location to tasks which require a detailed level of focus and practice of information transfer.

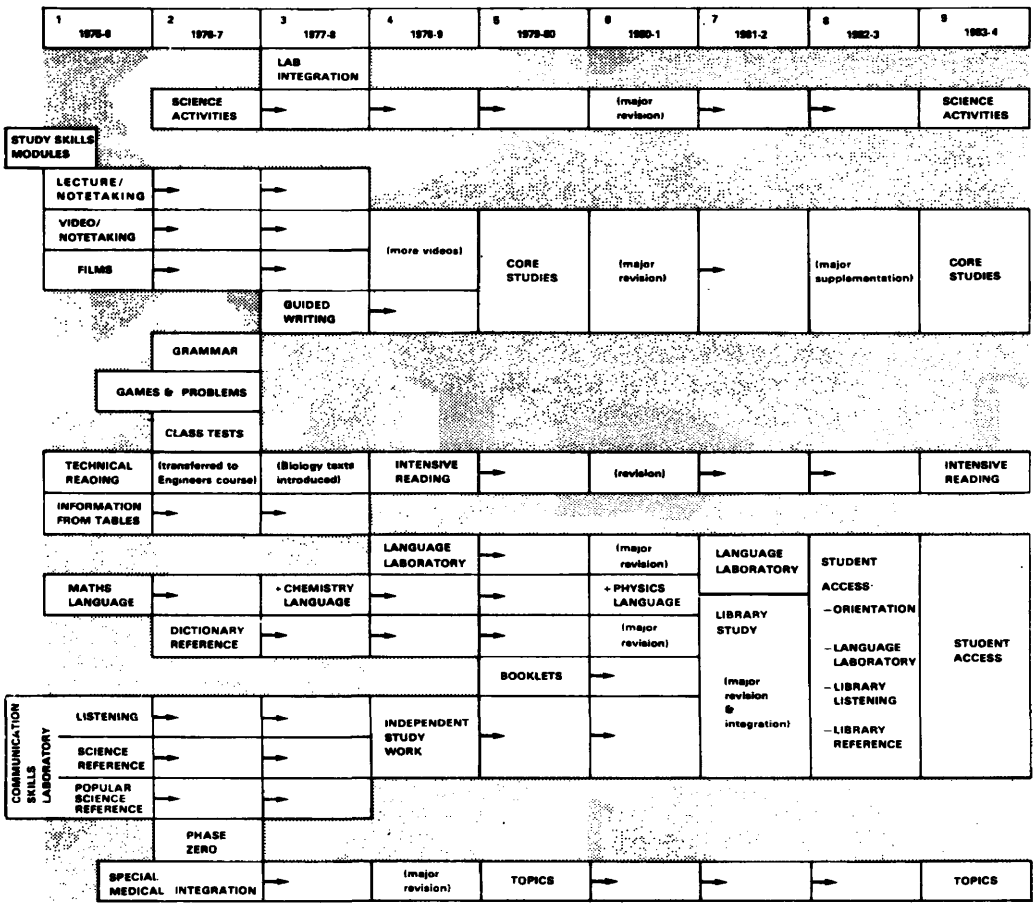


FIGURE 13 *Component evolution; Medics I English course*

The nature of teaching materials frequently develops in a symbolic relationship with the potential for their exploitation. In the case of self-study materials, early development was impeded by physical constraints. Boxes of books and sheaves of paper are not easy to cart into classes and a stable environment is necessary to develop the appropriate classification, storage and student-access systems necessary to maximise student independence. The development of a suitable library environment began properly when the ELC was provided with custom-built premises in 1977. Since then it has been possible to experiment with the redesign of class materials for self-study.

The design of workbooks and cassettes to accompany the ELC booklets used on the Medics course is an example of this kind of shift: resources once exploited in class under the guidance of a tutor are now studied privately. Another example is the dictionary reference work which was introduced as a separate strand of the course in 1976 in an attempt to improve student reading independence. By 1979, these materials had fallen into disuse, partly through encroachment on time by other expanding components and partly due to the observation that not all students needed this practice. In 1981, however, it was recognized that the materials could be used, like the ELC booklets, to supply a need in the introductory phase of the course. They were therefore reviewed and converted into self-study form for inclusion in the *Library Study* component. They consist of a phased introduction to dictionary conventions in workbook form and a supplementary set of classified exercises filed on laminated cards in the library area.

In a sense, the role played by self-study materials now used in the early weeks of the course was foreshadowed by the component *Phase Zero*. Devised for use in the summer of 1976, this component consisted of self-study listening, reading and writing exercises in the form of a cassette and workbook. It was intended that new students should receive these at their selection interviews and take them home for completion before the academic year began. In fact administration proved difficult and when, instead, the component was taught in the first few weeks of the 1976–77 course, the level of the materials proved to be too ambitious and the component was abandoned.

The development of the listening practice materials which complement the text reference materials in the *Library Study* component was, in comparison, straightforward. The existing bank of recordings and accompanying worksheets was progressively expanded, weeded and further expanded for several years until it represented a selection of acceptable topics and a range of appropriate practice tasks. Recently, however, attention has turned to the linguistic nature of the recorded texts, and their revision is underway. The objective of this revision is to ensure that the recordings illustrate more of the features of spon-

taneous speech and fewer of the features of printed text read aloud, and to extend the range of speech samples to include authentic lectures and interviews. In short, materials which were regarded as acceptable in years when other development priorities were pressing, now claim their turn in the cyclic process of review and revision.

There is one other component in the current course which can be offered in student access form, depending on storage and administrative facilities. The *Language Laboratory* units are cross referenced in such a way that a student may select one according to his current interest in a topic, or a teacher may recommend one according to an observed speech problem. In the language laboratory, too, students may practise oral production of numerals and formulae required in maths, physics and chemistry. *Maths Language* (classroom work on basic numbers and mathematical expression) began as a specific component in 1975 and acquired first a *Chemistry Language* then a *Physical Language* supplement in later years. This composite component was developed for six years with a focus on improving classroom teachability. In 1981 it was converted into self-study form and dispersed into the library as reading and listening exercises or as oral practice exercises in the language laboratory.

2. *Classwork materials*

While the library and the language laboratory offer opportunities for students to practise certain reading, listening, notetaking and oral skills with some choice of topic and task difficulty, the major proportion of the course is presented in class by the class tutor. In the Intensive Phase, *Science Activities, Core Studies* and *Intensive Reading* are taught in class; in Servicing Phase, *Topics*. All of these components settled into their present form several years ago, and since then have been subject to a process of expansion and polishing rather than redirection. Their earlier history, however, was disparate.

In 1975, when the first course began, staff were understandably living a hand-to-mouth existence in the classroom. A great deal of communal materials preparation went on in the evenings in the block of flats where most of them lived, and initially it was still hoped that the products could jointly serve both Engineering and Medical students. In retrospect the differing needs of these students, the overestimation of both their linguistic level and the level of their science course and the consequent unsuitability of many of the first materials are easy to spot. At the time, however, staff were not only under pressure to keep teaching but also subject to the difficulties of adapting to living in Jeddah and at very close quarters. It was to be mid-year, however, before discussions with Faculty staff and the College Deans led to a revised path: the production of separate and simpler courses for the two

colleges. In addition, it was not until this time that the College of Medicine crystallized its requirements for a service English programme rather than a broader student orientation.

The difficult and inappropriate *Study Skills Modules* were abandoned at this point. In their place other approaches germinated and sets of materials developed out of the different activities to which tutors allocated their classroom time. Some of these activities proved equally infertile. A component introduced in 1976–77, *Class Tests*, was designed to give students practice in following exam instructions of a kind which further investigation revealed they did not encounter. *Games and Problems*, based on materials favoured in language institutions elsewhere, proved expendable for similar reasons: the language required by the games was not science-specific and the reasoning skills practised in problem solving were not, as supposed, prime needs.

Other activities developed as strands which were later integrated to form more comprehensive components. Two of these early strands retained their integrity and matured as separate components of the Intensive Phase: *Science Activities* and *Intensive Reading.*

Science Activities were introduced in the second year of the course to generate practice of language associated with the students' science laboratory practicals. About eight activities were devised and tutors were provided with the necessary apparatus and suggestions for classroom exploitation. Students performed the activities under tutor guidance and discussion followed. Some activities lent themselves to related work, such as the study of a diagram of the eye, which followed an activity based on testing visual acuity.

The following year the activities were repeated, with some additions, and the few students worksheets and tutor notes which existed were revised and expanded. In the same year an alternative strategy was tried in a component called *Lab Integration.* Tutors accompanied their students to science practicals and attempted to devise follow-up language work. This strategy proved to be unrewarding: the ability of the tutors to keep up with the scientific content of the laboratory work observed was strained, and students lacked enthusiasm when asked to resuscitate in the English class what had challenged and absorbed them in the science laboratory. The experiment was discontinued in 1978–79 and the *Science Activities* component was consolidated in its present form.

Work since then has focused on revision of both pedagogic design and scientific content. The objectives of the five levels into which the activities are organized have been clarified and the design of each

activity improved in relation to those objectives. The science focus of the activities has been reviewed in the light of college curriculum revisions and those which introduce irrelevant content or divergent procedures have been amended. Paradoxically, those which too closely approximate tasks undertaken in college laboratories are also amended, for the lesson learned in the *Lab Integration* experiment has been reinforced by the observation that while students appreciate preparatory or complementary work in their English classes they are bored by replication.

The *Intensive Reading* component has its origins in the *Technical Reading* component introduced in the first year of the course to counterbalance the reading practice materials designed for self-study. Prepared for both Engineering and Medical students this component developed with a bias towards the needs of the former. Texts about pulleys, for example, could have little relevance for Medical students, and though for some time it was hoped that basic technical information together with improvement of applicable reading skills would compensate for this fact, as soon as time permitted the technical topics were supplemented with texts on aspects of biology, physics and chemistry. *Technical Reading* was developed and consolidated as a component of the course for Engineering students, but the accumulation of alternative texts for Medical students did not take coherent shape until the third year of the course. In that year a concerted effort was made not only to expand and group the selection of texts set for classroom exploitation in this component, but also to apply a range of exercise types in a standard unit format. The component, renamed *Intensive Reading*, was ready for teaching in 1978–79 and since then has been allocated about three hours a week of classroom time in the Intensive Phase of the course. It is subject to annual revision, but no radical change has been made to its design or content.

The design of the remaining and central component of the current Intensive Phase, *Core Studies*, was foreshadowed by the short-lived *Study Skills Modules* in that each of the twenty units in this component generates listening, notetaking, speaking, writing and sometimes reading practice related to a central topic. As prototypes, the modules featured central topics, multi-media input, integrated skills practice and specific linguistic focus. Where they foundered was in the inappropriacy of the topics and the target skills and in the prioritization of the linguistic focus. In comparison the *Core Studies* units closely match the content of the college curriculum, exact practice of skills required by the students in their studies and, in thus prioritizing relevance of topic and task, derive rather than prescribe linguistic focus.

The component as described, however, did not take shape immediately.

Between the abandonment of the *Study Skills Modules* and the emergence of *Core Studies* lay four years of experimentation, in the course of which the ELC's academic principles were formulated. It is interesting to note that while the high level of focus recommended by these principles was a characteristic introduced in the *Study Skills Modules* and recovered in the *Core Studies* units, experimentation in the intervening years swung at times to a very low level of focus indeed.

It is easy now to observe that live, recorded and filmed presentations of scientific information could lead to a single body of resources for classroom exploitation, but at the time these three types of input were developed as three separate strands of the course. *Lecture/Notetaking* consisted initially of scripts for six to eight brief lectures with accompanying guidelines for tutors. Its objectives were to train the students in the use of abbreviations and symbols in notetaking. This component became redundant by 1978 when its functions were incorporated in the materials designed to exploit the expanding stock of video recordings. *Films* were also introduced as they became available from commercial sources. These offered more glamourous input but their exploitation demanded ingenuity and variety depending on their length and on the speed and linguistic sophistication of commentaries designed, in the main, for native-speaker audiences. Those that proved most useful were eventually transferred, in full or in part, to video tape, for easier exploitation and these are now integrated with studio recordings in the stock of video tapes on which the *Core Studies* units are based.

Video/Notetaking, then, proved to be the predominant contributor to the eventual *Core Studies* resources. Its beginnings, despite the provision for media-rich resources in the original programme proposal, were modest. This was largely because it was to be two years before studio and classroom equipment was fully operative and adequately backed with technical staff but also partly due to the fact that materials designers were feeling their way towards appropriate exploitation of this sophisticated medium. In the first year of the programme some live lectures by faculty staff were recorded on video and used as input for notetaking and discussion tasks. These lectures could be expected to have achieved immediately what the whole programme took years to approach – a close match between the science content of the English classes and that of the college courses. This match, however, proved to be too precise. Once again it proved difficult to arouse student interest in a repetition of material that had already been presented in their college lectures, and ways were sought to devise programmes that could complement rather than replicate this material. In addition, the talking head was thought to insufficiently exploit the capacity of video to present visual as well as audio input.

To achieve these aims a studio production called *The Cell Cycle* and an accompanying workbook were prepared jointly by English and Biology Department staff. This unit pointed the way towards the type of production that proved most viable in the English classroom. It presented relevant material in a form which differed visually from live lectures and could be exploited either before, while or after the subject was in focus on the biology syllabus.

The successors of *The Cell Cycle* grew in number, first in black and white and then in colour, as ELC staff acquired expertise not only in the identification of suitable topics for this sort of complementary presentation but also in the techniques of programme design and production. In the fourth year of the course, when the shape of the *Core Studies* component was beginning to emerge, academic staff took full advantage of the facilities, experience and enthusiasm offered by the ELC's media department and the foundation programmes of the new component were ready for classroom trial the following year. Since then the component has developed through expansion of resources to cover a balanced range of topics, the re-making of programmes which proved technically, scientifically or pedagogically unsound and the development of the ancillary materials through which the programmes are exploited for purposeful language practice.

These ancillary materials consisted initially of student worksheets and tutor notes aimed at structuring listening, notetaking and oral reconstruction tasks. Some loose suggestions for further exploitation of the materials in the form of written reconstruction were included but not fully developed as a coherent approach to the teaching of writing skills until 1978–79. Previously, *Guided Writing* had been approached in two ways. One tutor developed a series of writing units based on diagrammatic input presented on overhead projector transparencies. Another team developed an alternative series of units which attempted to improve students' control of written forms at sentence level. These first, unrelated attempts to improve students' writing skills were both introduced in 1977 but they proved to be less effectual than writing tasks which emerged from topics explored initially for comprehension practice. It was the synthesis of both approaches in materials and guidelines for the further exploitation of the video input that completed the evolution of the *Core Studies* units.

By the fifth year of the course these units each consisted of a video input, student worksheets, tutor notes and additional aids such as overhead projector transparencies. Viewing tasks focused on comprehension and notetaking in the form of exercises in information transfer. Oral reconstruction was elicited by summaries in the form of diagrams and tables presented on overhead transparencies, and written reconstruction was planned to progress from simple gap-filling in the early

units to the planning and production, with decreasing tutor support, of related paragraphs. This design has not changed, except in matters of detail, and in particular in the development of the range of classroom procedures and techniques recommended in the tutor guide to the component.

A *Grammar* component devised and taught in 1975–76 was another of the varied strands of the early course. In this component predicted grammatical problems were the basis for a series of exercises, some adapted from published materials. The component proved to lack viability and was discontinued. The relegation of grammar practice to a remedial role emerged as an important ELC principle and the isolation of grammatical problems was considered viable only when they emerged as obstacles to the performance of communicative tasks. The development of the *Core Studies* units, centred on the identification of appropriate topics and the design of appropriate tasks, did not adhere to a prescribed linguistic syllabus. The linguistic content of each unit was summarized for tutors in the form of a checklist of essential new lexis, forms and structures. In 1980–81, the units were reviewed and the checklists revised to form a statement of the linguistic syllabus which results from the compilation of the *Core Studies* component.

By 1978–79 the idea of a course made up of a number of integrated components was established. Attention had focused on the synthesis of trial strands into the major components of the Intensive Phase and the following year this part of the course was implemented for the first time in the form it largely retains today. Work thereafter has been concerned with the pruning of irrelevant resources, topics and exercises, amendment of minor design errors and the preparation of both additional materials and comprehensive tutor guides.

The parallel development of the courses for Medical and Engineering students provided the ELC with a body of experience which could inform its responses to subsequent requests from other colleges. This mounting experience led to the formulation of the ELC's academic principles and in turn the statement of these principles provided a basis for course review. When attention turned, in 1978–79, to the Servicing Phase of the first-year Medics course it was possible to apply to the principles which the development of the Intensive Phase components had helped to formulate.

In previous years the latter part of the course had no discernible structure, but was dependent on the efforts of individual tutors. The approach, summed up as *Special Medical Integration*, was based on the notion that consolidation of ground covered in the Intensive Phase could best be achieved by teaching in tandem with the science syllabus. Tutors addressed themselves to this task in a variety of ways. Class

discussions were held on topics as they came up on the college programme. Texts, visual aids, exercises and vocabulary lists were variously devised to help the students with specific lexis, concepts and language problems. Joint tutorials with Faculty staff were tried in the men's college and found reasonably successful, but these depended firstly on a level of cooperation which busy college colleagues were not always able to give, and secondly on a degree of scientific awareness which ELC staff were not always able to achieve. Furthermore, students found it uncomfortable to be diverted to linguistic matters from what to them appeared to be an opportunity for additional science tuition.

Tutors continued to be responsible for finding or preparing materials for their own classes until the third year of the course. At the same time, the latter months of the course, with their reduced teaching loads, were being dedicated to the revision and supplementation of materials for use in the Intensive Phase of the next academic year. In the third Servicing Phase, time was found to assemble all the materials produced in previous years and file them according to science topic, and new materials were added to the files. In the fourth year, while Intensive Phase materials were being co-ordinated and shaped to form the *Core Studies* component for 1979–80, the later content of the college syllabus was analysed and a number of key topics identified. With ideas culled from the accumulated materials on file, teams of tutors set about the task of designing for each topic a complete unit of work, with the objective of flexibility: the units should be pedagogically interchangeable so that in any year they might be taught in the order in which they occurred on the college syllabus.

The writing of what were to be called simply *Topics* was the first materials production project to make full and considered use of the ELC's facilities. These included the capacity to produce professional quality programmes for video, audio-tape and tape/slide, and printed text and illustrations in the form of bound workbooks and overhead transparencies. Science aids such as blood testing kits were also available. These resources were exploited throughout the units to achieve variously the objectives of an agreed unit design: an introduction to the topic in the form of printed, projected or recorded input, a focus on one area of the topic as a basis for controlled language-intensive work and an exploration of aspects of the topic in a wider context as a basis for information gathering practice and divergent discussion.

In 1979–80 the existing *Topics* were revised and others completed. A major task was the simplification of the accompanying tutor notes, which had been written to provide tutors with the greater scientific awareness demanded at this stage of the course and had tended to err

on the side of information overload. The teaching of the *Topics*, too, provided additional classroom feedback in the form of comments on, or alternatives to the constituent resources and activities. Since then some amendments and additions have improved this major set of materials but no cause has been found to radically alter this approach to the classroom work of the Servicing Phase.

3. Component guides

In 1980–81 the first-year Medics course consisted of a substantial body of materials for both classwork and independent study. While work on the pruning and expansion of the latter continued, attention in the former components turned towards their classroom implementation. During their development most classwork units had been provided with accompanying tutor notes, some brief, some detailed and many containing suggestions of wider applicability than the immediate unit of work. Moreover individual tutors brought to their teaching differing experience in the teaching of English and/or Science and the classroom implementation of course materials varied greatly from tutor to tutor.

In the sixth year of the course, by general consensus, course improvement was sought not as hitherto in the review and revision of materials but in a review of their implementation. A programme of lesson observation, staff discussions and seminars led to the clarification of the role of each component in the course and a greater awareness of their inter-relationship. The pooling and evaluation of classroom approaches and techniques, together with a comprehensive review of all existing tutor notes, resulted in the compilation of the *Component Guides*. Each Guide placed the component in the context of the whole course, related it to the overall course objectives, described its constituents in overview and suggested general procedures for its implementation. Unit-specific information and suggestions were appended for *Science Activities, Core Studies* and *Topics*.

In the same year an indexing and cross-referencing exercise completed the documentation of this course, and in its seventh year it was, for the first time in its history, published internally as a complete package of student and tutor resources.

Five – stabilization

During the development of the first year Medics course the ELC was twice visited by Professor John Sinclair of the University of Birmingham and Ray Underwood of the British Council. Their first visit, in November 1979, coincided with the intensive phase of the fifth year of the course, a year in which consolidation of disparate materials into distinct but cohesive components had begun. The Sinclair–Underwood

comments on the work of the ELC at that time included recognition of the solid progress towards theoretical underpinnings of course design and mastery of scientific content in teaching materials. General recommendation included the need to even up the quality of materials in use, to give priority to the parallel development of teaching and testing skills, and in time to make contributions to the profession at large.

These recommendations were observed, as opportunity allowed, in the further development of the first year Medics course. Pruning and replacement of inferior materials continued, comprehensive tutor guides to each component were produced, teaching advice for the units of the three main classwork components was collated and developed in the form of standardized unit notes, and work began on linguistic analysis of the content of each unit. Work also progressed, albeit slowly, towards the elusive formula for a testing policy that would satisfy all parties concerned: clients, students, teachers, scientists, statisticians and communicative language testing advisors. In the course of this concentrated attention to the documentation of the course no fewer than four publishable papers emerged from teachers engaged in the work. However the presentation of any such ELC papers at international conferences has been precluded since 1982 by a national freeze on the necessary funding.

The second visit occurred towards the end of the seventh year of the course, in May 1982. This year had seen the first-year Medics course implemented for the first time as what could be viewed as a publishable package. The second Sinclair–Underwood report made reference to this sort of materials consolidation and specific mention of progress on this course towards specification of both classroom implementation and linguistic analysis of course materials. The report also made four major recommendations, and it seems fitting to sum up the remaining two years of development of this course to date with reference to those recommendations.

First, the report recommended stabilization of materials as a means of freeing resources to attend to other priorities, in particular to the examination of effective teaching. It suggested a final scrutiny leading initially to replacement or emendation of unsuitable or defective elements and then to definitive publication in textbook form. To the greater extent, this recommended stabilization has occurred. The component unit masters are now stored centrally and printed once annually. They are not, however, bound in textbook form despite the capacity of the printshop to provide this service. The flexibility offered by the gradual dispensation of separate study units is seen as an asset too valuable to sacrifice to a policy aimed at discouraging materials proliferation for its own sake. This flexibility permits, in particular,

appropriate responses in the English course to changes in the agenda of the science curriculum. It also permits the insertion of additional or replacement materials in response to unforeseen changes of focus in the science curriculum: the deletion of the topic *Evolution* from the first year biology syllabus, for example, or the introduction of the topic *Genetics*.

A resource-based approach, then, has been retained in preference to textbook stability in order to preserve the snug fit with the science curriculum that now characterizes the English course. Core resources are nevertheless stable, emended only to remove typographical errors or occasional scientific infelicities. Teacher creativity is not, however, curbed by this core stability. On the one hand the student-access library is voracious, always grateful for an additional reading or listening item. On the other hand the need to respond appropriately in class to variations in student ability and progress has resulted in the *Supplement*.

In 1981–82 it was observed that the stabilization of core materials freed teachers to attend more closely to aspects of classroom exploitation. Classroom aids and supplementary activities proliferated and the idea of pooling efforts was conceived as a means of sharing ideas and minimizing duplication. A classification system was devised and the following year the *Supplement* was set up with an index, a reference file, a storage file and an accessioning system. *Supplement* items are devised, on the whole, to fulfil one of three objectives: to precede or follow core material with the purpose of making it more digestible to less able students or more extending to more able students, to focus more closely on specific linguistic problems emerging in student performance, or to substitute for unsuccessful items in core materials. In particular the *Supplement* has provided the means by which a quota of exceptionally low-scoring course entrants could be guided through the core materials designed for their more proficient fellow students.

The second recommendation referred again to the need for collation and specification of the language coverage of the tasks represented by course materials, desirably in the form of a syllabus. Work towards a first year Medics course syllabus began with the cataloguing of all its constituent study units. In 1980–81 a standardized index was appended to each of the component guides and thereafter updated regularly. In 1982–83, as part of the ELC's "visual index" project, these appendices were assembled in schematic form for wall display. Now published, the master chart makes it possible to see in overview the coverage and inter-relation of the items in each of the course components, and as such its display greatly facilitates the orientation of visitors and new staff (Figure 14). As a syllabus, however, it was soon apparent that the index reveals nothing linguistic, as all titles of the course units indicate science topic rather than linguistic focus.

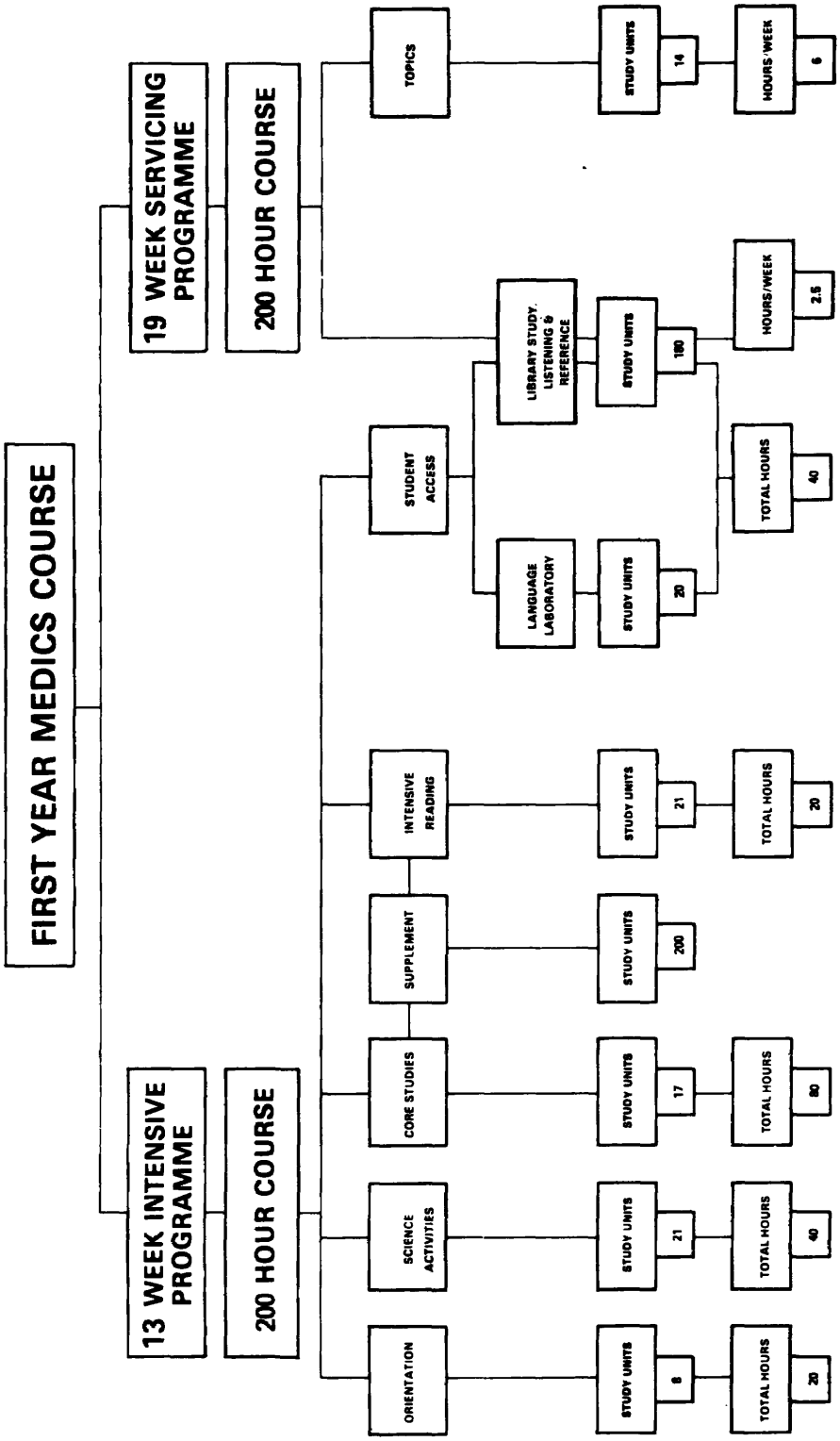


FIGURE 14 *Key to the components and itemized indexes of the current English course for first year Medical Students*

Progress towards specification of the linguistic syllabus of the course has not reached the same definitive stage as the course index. Work focuses on the three main classwork components of the course, *Science Activities, Core Studies* and *Topics*, and procedure is two-phased. First, each unit is to be analysed in terms of key lexis and key formal and functional features. Alphabetic word lists for all three components have been completed. Linguistic analysis of all units of the *Core Studies* component is complete. When the same is true of the other two components the unit-specific information is to be collated in a master list: the lexicon and grammar of the syllabus will then exist. The next phase will be to indicate a path of learning progression through the list, but the cyclic recurrence of common linguistic features of scientific text suggests that an attempt to trace this progression would prove less rewarding than the indexing of all items with cross-reference to materials in which they are significant.

The third recommendation related to teaching strategies and suggested that the most appropriate of the wide range of statements currently on offer to the profession should be distilled to provide a specific formulation for the ELC. While the symbiotic development of first year Medics course materials and course teachers has resulted in an evident classroom ideology no attempt has yet been made to state this formally. The need is more apparent when maverick strategies are observed than when classroom implementation by all members of the teaching team is broadly compatible, and on this course the latter is more frequently the case than the former.

The fourth recommendation revived the need for clarification of testing policy in the ELC, in particular the need to distinguish between a student's success in completing tasks and his general language proficiency. It is perhaps true to say that it is in the area of testing that the task-based ESP approach to language teaching has thrown up its stickiest problems. These problems have been generally observed when different course tests purporting to discriminate at the same band levels produce incompatible results. In the first year Medics course the problems have always been compounded by the fact that the client college, though familiar with and supportive of the banding system as a way to describe student proficiency, still requires student test results to be expressed in percentages. Conversion from band levels to percentage scores proving, in the main, spurious, the attempt to state a student's ability in terms of the appended band descriptions is now confined to informal tutor assessment. Formal examinations are now scored to meet the client requirement, and on this basis renewed efforts to produce a satisfactory statement of testing aims, procedures and design guidelines have been successful. This recently published guide joins the overall course description and the six component guides to complete the documentation of the first year Medics course.

Appendix

The following pages contain Medics band descriptions for Reading, Writing, Listening and Oral Skills. Band 3 is the minimal entry band, band 6 the target exit band.

Band Sheet

READING/REFERENCE

BAND	PERFORMANCE	TASKS
7.5	GOOD	to make full and independent use of a number of University level texts; to locate, extract and evaluate information at the whole text level with no guidance.
7.0	JUST ADEQUATE	
6.5	GOOD Copes with most tasks at this level. Can attempt (some) tasks at higher levels.	to make confident use of a specified first year University text with limited guidance; to locate, select, extract and transfer information at the chapter level.
6.0	JUST ADEQUATE Copes with difficulty. Needs further help and practice.	
5.5	GOOD Copes with (most) tasks at this level. Can attempt (some) tasks at higher levels.	to make use of upper secondary level text books with some guidance to locate, extract and transfer information, including significant lexis, factual details, examples and main ideas at the section level.
5.0	JUST ADEQUATE Copes with difficulty. Needs further help and practice.	
4.5	GOOD Copes with (most) tasks at this level. Can attempt (some) tasks at higher levels.	to make use of secondary level texts with considerable guidance; to extract and transfer information including main lexis, factual detail and examples at the paragraph level.
4.0	JUST ADEQUATE Copes with difficulty. Needs further help and practice.	
3.5	GOOD Copes with (most) tasks at this level. Can attempt (some) tasks at higher levels.	to make use of simple secondary level texts with careful guidance; to locate information including specified lexical items and collocations through scanning, (at the short paragraph level); use of index and table of contents; to recognize the conventions of printed text.
3.0	JUST ADEQUATE Copes with difficulty. Needs further help and practice.	

Band Sheet

WRITING

BAND	PERFORMANCE	TASKS
7.5	GOOD	**To write related paragraphs to form a cohesive essay, with little or no guidance, from given input(s).** **Key Task:** Evaluation of input. Explanation where necessary **Proficiency Level:** few significant Communication problems: occasional inadequacies.
7.0	JUST ADEQUATE	
6.5	GOOD Copes with (most) tasks at this level. Can attempt (some) tasks at higher levels.	**To write paragraphs to form a short essay, with limited guidence, from given input(s).** **Key Task:** Relating structures and functions in some detail **Proficiency Level:** Occasional language and/or communication errors: restrictions of idiom and lexis.
6.0	JUST ADEQUATE Copes with difficulty. Needs further help and practice.	
5.5	GOOD Copes with (most) tasks at this level. Can attempt (some) tasks at higher levels.	**To write separate paragraphs, with limited guidance, from given input.** **Key Task:**Descriptions of processes or systems. **Proficiency Level:** Competence with familiar or circumscribed situations. Obvious restrictions of idiom and lexis.
5.0	JUST ADEQUATE Copes with difficulty. Needs further help and practice	
4.5	GOOD Copes with (most) tasks at this level. Can attempt (some) tasks at higher levels.	**To write a single paragraph from a given input with considerable guidance.** **Key Task:** fine or detailed description of structure **Proficiency Level:** Can sustain the thread over one or more sentences. Poor and innaccurate fluency.
4.0	JUST ADEQUATE Copes with difficulty. Needs further help and practice.	
3.5	GOOD Copes with (most) tasks at this level. Can attempt (some) tasks at higher levels.	**To write separate sentences from a given input with considerable guidance.** **Key Task:** coarse or general description of structure **Proficiency Level:** Needs guidance for anything above word or phrase level. Very restricted vocabulary.
3.0	JUST ADEQUATE Needs further help and practice.	

Band Sheet

LISTENING

BAND	PERFORMANCE	TASKS
7.5	GOOD	to follow a standard length lecture* on any scientific or medical topic, without guidance, presented only once; subsequently to produce a written or oral summary with no guidance.
7.0	JUST ADEQUATE	
6.5	GOOD Copes with (most) tasks at this level. Can attempt (some) tasks at higher levels.	to follow a standard length lecture on any scientific or medical topic, with limited guidance, presented once; subsequently to provide an oral or written summary with limited guidance.
6.0	JUST ADEQUATE Copes with difficulty. Needs further help and practice.	
5.5	GOOD Copes with (most) tasks at this level. Can attempt (some) tasks at higher levels.	to follow a short lecture* on a familiar topic, with simplified delivery, presented once; subsequently to produce written or oral answers to guiding questions which elicit the main points and relevant examples.
5.0	JUST ADEQUATE Copes with difficulty. Needs further help and practice.	
4.5	GOOD Copes with (most) tasks at this level. Can attempt (some) tasks at higher levels.	to follow a short lecture* on a familiar topic, with very careful and simplified delivery, presented more than once; subsequently to produce written or oral answers to questions about the main points of the lecture, with considerable guidance.
4.0	JUST ADEQUATE Copes with difficulty. Needs further help and practice.	
3.5	GOOD Copes with (most) tasks at this level. Can attempt (some) tasks at higher levels.	to follow a short lecture* excerpt on a simplified and familiar subject, with repetitious delivery, presented more than once; subsequently to produce oral or written answers at the word or phrase level to guiding questions about the main points of the lecture excerpt.
3.0	JUST ADEQUATE Copes with difficulty. Needs further help and practice.	

Band Sheet

ORAL ABILITY

BAND	PERFORMANCE	TASKS
7.5	GOOD	**Can participate in spontaneous discussion.** — Can interrogate to elicit information. — Can give spontaneous and appropriate comments, interruptions, etc. in classroom situations. — Can give a formal talk on a prepared subject.
7.0	JUST ADEQUATE	
6.5	GOOD Copes with (most) tasks at this level. Can attempt (some) tasks at higher levels.	**Can participate confidently in a a prepared discussion.** — Can ask questions to elicit information. — Can respond to varied questions. — Can explain a process or activity.
6.0	JUST ADEQUATE Copes with difficulty. Needs further help and practice.	
5.5	GOOD Copes with (most) tasks at this level. Can attempt (some) tasks at higher levels.	**Can participate in guided classroom communication.** — Can give a simple account for a process or activity. — Can answer straightforward questions.
5.0	JUST ADEQUATE Copes with difficulty. Needs further help and practice.	
4.5	GOOD Copes with (most) tasks at this level. Can attempt (some) tasks at higher levels.	**Can give phrase-length responses to prompts.** — Can give short answers to direct questions. — Can make intelligible utterances on classroom activities.
4.0	JUST ADEQUATE Copes with difficulty. Needs further help and practice.	
3.5	GOOD Copes with (most) tasks at this level. Can attempt (some) tasks at higher levels.	**Can quote or 'copy' phrase-length responses, language being introduced or taught.** — Can give back the lexis of the lesson. — Can make minimal intelligible utterances on simple matters of immediate concern.
3.0	JUST ADEQUATE Copes with difficulty. Needs further help and practice.	

Course for First Year Students of the College of Earth Sciences

Hassan Mustapha, Pieter Nelson, and Jeffrey Thomas

This chapter will describe the principles and development of a reading course designed for students of the Faculty of Earth Science.

Background to the course

The English Language Centre at KAAU was originally established in 1975 to service the needs of faculties using English as their sole medium of instruction. Other faculties where Arabic was the medium of instruction later requested courses with more limited objectives, usually based on the need for students to read English texts. The Faculty of Earth Sciences was one of these. As in any ESP course a needs analysis was an essential preliminary to course design.

Student needs

Any course based on a needs analysis must attempt to reconcile several potentially differing views of what the needs actually are and maybe also a difference between *needs* and *wants*. The first stage must be to ask the Faculty what they want. They are the client and must be fully consulted. Their requests must be viewed in the light of what is possible given the constraints such as course length, student entry levels, staffing levels, room availability, etc. They must also be interpreted in terms of linguistic objectives. The general desire was expressed that students should be able to read academic texts and references relating to the field of Earth Sciences written in English.

The next step was to study the use made of English in the Faculty to get some impression of the required terminal behaviour. It was found that the various courses in the Faculty made widely differing uses of English ranging from instruction and texts in Arabic with a certain amount of English technical lexis (in the texts these terms are often printed in Latin script and followed by a transcription into Arabic script as an aid to pronunciation), to courses conducted entirely through the medium of English by lecturers with little knowledge of Arabic, some of whom speak English as a second language. The term Arabic medium Faculty is sometimes a statement of what would be desirable

rather than a description of the present state of affairs. However the trend is towards increasing use of Arabic in the Faculty. The bulk of geological literature will probably always be in English though it is likely that more and more of this will be translated into Arabic. A small number of students have stated that they often find the English texts clearer than some Arabic translations. It was found in practice that students were seldom required to read references and few did so on their own initiative. Generally lecturers require students to read certain pages of text books often in order to write up reports and projects. These pages may be given to the students as photocopies so that a student may go for long periods without handling a real book. This closely guided reading means that the students have little use for the reference skills which form such a large part of many courses in English for academic purposes.

Given the fact that the Faculty aims to teach through the medium of Arabic it would be unreasonable to expect them to release students for lengthy courses in English. Students are, in fact, required to attend the ELC for three semesters of about 13 weeks with five hours of tuition per week, a total of about 200 hours. This time constraint, together with the fairly low entry level of most students, forced the department to adopt a fairly pragmatic approach to course design.

The demands which the Faculty makes on its students in terms of reading English texts and references are obviously influenced to some extent by the relatively low reading ability of the students. In the long term, as the students' reading ability improves, the Faculty may require more from them in terms of consulting references and a freer use of texts. They are certainly required to function at a very high level in their postgraduate studies.

The initial task of the ELC is to ensure that the students can meet their present reading requirements adequately and assume that an improvement in entry levels or an increase in course length will eventually make it possible to extend the course objectives to cover more sophisticated reading skills.

One of the tenets of the ELC approach to language teaching and learning is that the authenticity of the tasks which the students are set ensures a high level of student motivation. However the student on first coming to the ELC has not conducted a needs analysis with regard to his English course and has little or no experience of Faculty studies. The relevance of his ELC course to his Faculty studies may not therefore be immediately obvious to him and may not automatically bring high motivation. When the student enters the ELC he has a set of expectations and preconceptions about learning English which are mainly derived from his experience in secondary school.

There could hardly be a greater contrast between this approach to reading and the approach which the student meets when he enters the ELC, and it is in fact remarkable that the students accept the contrast with so little adverse reaction. They do, however, face a triple shock. Firstly in the nature of the task they are faced with, reading for a general understanding rather than a detailed word-by-word analysis of the text. Secondly the treatment of grammar in context as an aid to understanding rather than something to be learned as a separate entity, and thirdly the ESP view of the whole course with the text being relevant to their other studies and having value outside the English class. This comes as a pleasing surprise. Certainly in the initial stages it is the relevance of the material which helps the students to bear with us. They suspect that we are not really teaching them English but appreciate what they are getting anyway. (See later section on student response).

Established study habits

During the ELC course an attempt must be made to wean students away from some of the study habits they acquired during their secondary school English lessons. Probably the most deeply rooted and most troublesome of these habits is the desire to acquire a translation for every new word. English is regarded as a mountain of words which must be learnt as individual items. The response on arriving at an unknown word during the reading of a sentence is to stop dead and reach for an English–Arabic dictionary, ask a neighbouring student or as a last resort ask the teacher. The unknown word forms a major psychological hurdle. After a while some students can be persuaded to guess a meaning on the basis of what has gone before – although they generally require some external confirmation that their guess is correct. It takes much longer before a student can be persuaded to read the rest of the sentences and then try to guess meaning from context. (In fact in many cases the psychological block is so strong that this stage is not reached even by the end of the course). Once Arabic meaning has been apportioned to the unknown word this is written into the text above the word. After detailed study there may be as much Arabic on the page as English. The student then searches for meaning using a very unusual reading process – the Arabic he has written needs to be read from right to left but the word order is that of the English sentence from left to right, and the grammatical structure is that of English. This strange intermediate language must then be translated into Arabic. It is hardly surprising that reading in this way is a slow and uncertain process.

The following example may serve to illustrate the damaging effect of this process. A group of students were given the comprehension text for their final ELC examination a week before the exam. Their copies of the

text were then collected in with the exam papers. An inverse correlation was found between the number of Arabic words on the text and the test score. Of course further tests would be needed to find out if this is not just the result of weak students translating more.

The evolution of a rationale

It would be wrong to give the impression that all the above information on student needs, experience and study habits was available before courses began and that the course was designed from the beginning to meet these needs, taking account of the constraints. The course as it stands at the present time is a result of gradual evolution, various approaches having been tried and discarded along the way. Given a few months for research and course design before teaching began some of these false starts could perhaps have been avoided but in the ELC, as in most institutions, the time between a course being requested and the start of teaching is short, and staff time is devoted more to teaching and day-to-day administration than to research and planning.

From the beginning it was felt that it was necessary to present the students with new approaches to learning in the ELC. They had already completed several years of English classes in the schools – generally with somewhat limited success. Psychologically a fresh start was needed – more of the same would be unlikely to produce results. After five years of grammar rules and exercises in school it would be arrogant of the ELC to assume that a few months spent going over the same rules and exercises could produce the results which earlier teachers had failed to achieve. In any case we have neither the time nor the conviction required for such an approach.

What was needed then was a course which would appear fresh to the student, wean him away from some of his school habits which interfere with fluent reading, and help the student to develop his ability to process text rather than simply test his performance. All this to be achieved in a relatively short period of time.

The materials

The course materials consist of twenty units each based upon a passage taken from textbooks on earth science. The topics covered are linked to those studied by students in their second semester in the Faculty of Earth Sciences.

The earlier texts are taken from books of a fairly low level of conceptual difficulty such as might be used on a British pre *O level* course. Gradually the order of difficulty increases up to the level of British *A level* or first year university texts. It should be remembered that

students have little previous training in Earth Sciences before coming to the University hence the rather low level of sophistication of the texts used in this course. Higher level texts are used for the course which follows the one described in this chapter.

An attempt was also made albeit on a rather impressionistic basis to grade the texts used in increasing order of linguistic difficulty. Parallel with this increase in textual difficulty through the course is an increase in the level of difficulty of the tasks which the students are set. The twenty units are divided into four groups of five. It is in the initial text reconstruction exercises that the differences between these groups of units are most obvious. The first five units begin with a text which has had the first sentence removed from each paragraph. Students are given a list of these first sentences plus two extra sentences and are required to select a sentence appropriate for the missing first sentence of each paragraph.

The second set of five units begins with a text which is complete with the exception of one paragraph. The sentences of this paragraph have been jumbled and the students are required to re-order them.

The third set begins with a set of jumbled paragraphs which need to be put in order to form the text.

The last set of five units is less regular but includes such exercises as inserting missing phrases into the text from a list of possibilities and inserting illustrations into appropriate points in the text.

As well as focusing the attention of students onto the grammatical and rhetorical structure of the texts these initial exercises also serve to increase student motivation. In effect they transform the reading of the text from a passive activity into a productive one. In re-creating the text for themselves the students have something tangible to show for their efforts in reading the text. This is very useful in a reading course where the motivation for reading a text is the rather remote idea of learning to read more effectively. People normally read because they require information from the text. In any reading course where the text is selected by the teacher, even a ESP course, this primary motivation is likely to be lost. Any exercise which gives the act of reading a purpose, even the highly artificial one of putting the text back together, is thus very valuable.

Methodology

Just as ELC materials have evolved through a series of approximations to their present form so the methodology of the course has also evolved. The initial response to the request for a reading course produced what

seems now to have been an over-reaction to the teacher-centred approach used in the schools. A self access approach was adopted with students working through reading texts and worksheets at their own speed. This proved unsatisfactory in several ways but mainly because students felt that they were being short-changed in that the teacher was not teaching them, while certain teachers felt redundant. This highlights a problem which exists in the design of any reading course for classroom use. Reading is essentially a solitary activity yet some way must be found of allowing the teacher an entry into the process if the students' and teachers' role expectations are not to be drastically changed.

The methodology adopted with the present course does go some way towards changing traditional teacher-student roles but in a more gradual way, and in a way which seems to have developed along natural and not necessarily similar paths as a result of the response of each group and teacher to the materials. This comes out most clearly in the handling of the text reconstruction exercises. One characteristic of this type of exercise is that there is often more than one possible answer and this, in turn, leads to discussion in the class as to which possibility or possibilities represent the best answer. In order that the students may get the most from the exercise, the teacher's role becomes that of a central chairman, guiding the discussion where necessary but not fulfilling his expected role of provider of truths. Some students find this difficult to accept but the process does encourage the students not only to re-order the materials they are given on an impressionistic basis but to carefully consider their reasons for selecting a given order and thus develop an awareness of the semantic and grammatical clues which they have used. Thus in an indirect way cumulative understanding is developed of the grammatical and rhetorical structure of the passage. The arguments used by students towards the end of the course to justify their chosen ordering are often pleasingly sophisticated.

In cases where no consensus is reached, the teacher often does not resolve the conflict immediately but leaves the students to think about it overnight, or over the weekend, leading to a take-home approach to reading. For the purpose of subsequent more conventional exercises it is necessary that all the students use the same version of the text ie. the original text. Usually this is the version agreed by the class but where necessary the teacher can present it as an alternative justifying it in the same way as any of the other forms were justified. The degree to which the teacher feels able to adopt this more democratic position obviously varies.

The text reconstruction exercise is thus usually done in three stages – (1) students attempt the exercise alone, in class or more often at home; (2) a class discussion of the answer; (3) a final discussion of the original

form of the text. Sometimes a small group discussion stage is added or substituted for class discussion but this is not always satisfactory because the better students tend to dominate the groups and the weaker students may bow uncritically to their judgements. It can however, provide useful practice in the presentation of arguments before the class discussion.

The same general pattern is used in the other exercises, individual work being followed by class discussion before the teacher arbitrates on the acceptibility of the answers. In these discussions the teacher must develop his *poker face*. Students invariably look to the teacher for his response to a given answer and instantly adjust their own to fit. The teacher must not provide any clues at this stage to free students from making their own judgements.

Student response

We have already mentioned how the content and approach of the course comes as something of a shock to the students after their earlier experiences in school and even during their first semester in the ELC. Assessing their reaction to the course once they have got over this initial shock is not as easy as it may seem. The students are so pleasant and polite that any questionnaire tends to produce the answer the students think the teacher wants. The closest we have been able to get to a survey of student responses was a series of informal discussions about the course in Arabic. This combined with the impression of teachers running the course makes it possible to make a few tentative generalizations.

Initial resistance was felt to the lack of explicit grammar, particularly rule learning, in the course; but gradually some of the better students came to support the view that it was not really necessary to learn grammar explicitly. Some of the very good students even got to the stage of apparently enjoying the ordering exercises for their own sake. The reluctance of teachers to provide lists of definitions and difficult words from the texts was thought to be perverse by most students throughout the course despite all efforts to encourage the guessing of meaning from context and to stress the unimportance of most of the problem words to the meaning of the passage as a whole.

The idea of the possibility of there being more than one correct answer also took a long time to be accepted. However the relevance of the materials probably did more than anything else to make the course acceptable to the students. The specific aims of the course did not meet with universal approval, many students still expressed dissatisfaction because they felt they had not improved their ability to communicate orally in English.

Many students who otherwise found the course satisfactory would have liked a greater visual input, perhaps partly as a result of contact with fellow students on multi-skill courses in the ELC which make extensive use of video and other visual and audio techniques. It is planned to increase the use of visual materials in the future.

With no lists of words or grammar rules to learn many students were worried, at the end of the course, about how they could prepare for the final examination. Despite all that had gone before the view of language as a *mountain of words* persisted. Some students failed to grasp the cumulative nature of the course and the idea that they were developing a skill.

Little systematic use of Arabic is made in the course, mainly because only one of the teachers speaks the language. In his classes there was a tendency for the weaker students to appreciate explanations given in Arabic and for some of the better ones to complain about the use of Arabic in the classroom. It is planned to make some controlled use of Arabic in the future in the form of a written introduction to the general principles of the course followed by short explanations of what will be covered in each group of units and which skills the exercises are designed to assist.

All this may give a rather negative view of the course, however these points were balanced by the very positive atmosphere in the classroom, good attendance figures, and the improvement in reading ability which was observed to take place.

Testing the course

In its present form the course has been running with apparent success (i.e. good results) for two semesters now. For the purposes of this chapter and future development it was obviously desirable to attempt some testing of the effectiveness of the course. In order to do this a control group should really have been established using materials contrasted with those which we thought significant in the course. However the ELC is a teaching establishment not a research organization and our primary duty is towards our students and the Faculty of Earth Sciences. Having spent several years developing a course which we felt best suited the needs of our students it would have been dishonest of us to provide one group of the students in our care with materials which we regarded as inferior, inappropriate or of doubtful use or relevance. The idea of a control group was therefore dismissed. While it was thus not possible to demonstrate that the materials were more effective than possible alternatives, tests were devised to show whether or not progress was made in reading ability. A battery of tests was produced which was administered at the start of the students'

second semester and also at the end of the semester. The tests were in addition to the normal ELC testing carried out for assessment purposes. It was made clear to the students that tests were not for university assessment. This may have resulted in some students putting less effort into the tests than we would have liked, particularly in the final series of tests which took place at the end of an academic year when students were preoccupied with their subject assessment examinations. However the use of tests so apparently unrelated to the course content of the semester would have brought protests if the students had thought they were to be used for assessment purposes.

The test series consisted of three cloze passages all related to the field of Earth Sciences taken from published text books. Two comprehension passages with multiple choice questions from Cambridge First Certificate Examinations were also included in an attempt to provide some measure of comparability with students outside the ELC. The results show that these comprehension passages proved too difficult for most students and so provide little useful information. The results in this section of the test series were also those most affected by the reduction of effort mentioned above. The cloze test results do show a very definite improvement from the beginning to the end of the semester and this does seem to indicate an improvement in students' ability to read texts related to the field of Earth Sciences which was, of course, the main objective of the course. For statistical purposes the sample was restricted to the 20 students who had taken all components of all tests to simplify computation and ensure comparable groups. Pre-test and post-test cloze scores were significantly different at the 0.005 level of confidence using a *t*-test. 19 out of 20 students showed an improved score. Change ranged from −1 to +39 points with a mean change of +16 on a 125-point test.

Post-test cloze scores and end-of-term test scores were related but the cloze test produced a wider spread of scores. This effect may be attributed to differences of test length. The obtained correlation was 0.608 and therefore clearly indicates a relation between the tests; other factors are clearly at work as well. There was insufficient data to determine whether random error was the only other factor.

Students indicate that they do not, in fact, do very much reading in English outside their English classes at this stage in their studies, so it seems likely that this improvement can be attributed to the effects of the course rather than to some external factor.

Conclusions

As it stand the course represents the closest approximation which has yet been achieved in the Reading Department to a course which

satisfies the needs of the faculty, attempts to modify or sharpen the students' study habits such that they can read more effectively, while maintaining a fairly high level of student motivation. It remains imperfect, but major revision is not envisaged in the near future as there are more pressing needs in other courses run by the department. Minor modifications will probably take place next semester, mainly with a view to increasing the visual content of the course. Last semester short sections of video programmes on earthquakes and plate tectonics were shown to students after the relevant readings. A more integrated use of video is planned. It is also planned to add more to the materials in the form of diagrams and other illustrations.

Testing, both mid-semester and end of semester, has tended to follow the form of the course units rather too closely. This has the advantage that the students are not faced with unfamiliar tasks but we are not confident of the validity of the text reconstruction exercises as part of a test. These were envisaged primarily as an enabling exercise and their use should perhaps be limited to this. One possibility is to present the students in advance with a text-ordering exercise to familiarize them with the text to be used in the test.

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The Design of the Foundation Course

Colin Payne

Introduction

Mainstream courses in the English Language Centre of King Abdulaziz University comply with its task-based approach to ESP course design and implementation. Originating as a response to problems encountered by low proficiency students on such courses, the *Foundation* course is different. It aims to prepare students to enter mainstream courses, and is therefore pitched low, but it is not what might be called a General English course. It is as tailored to specific student needs as any other of the Centre's ESP courses.

This paper first explains the emergence of this different type of course in the ELC. It then discusses the course objectives as derived from identified student needs, and outlines the design criteria which govern the translation of these objectives into course material. The resulting material is then illustrated, and the paper concludes with a brief evaluation of the success and potential of the course.

1. Origins of the foundation course

1.1. The mainstream ELC approach

The ELC was established in order to equip students with the basic linguistic and communication skills necessary to carry out their subject studies, particularly those in the English-medium colleges of the university. The overall objective of the ELC is:

> to develop communication skills so that within one year students can effectively process scientific information through the medium of English.[1]

The approach followed to meet this objective is a task-based learning approach, the fundamental premise of which is that:

> students learn by doing and the more often one does something, the better one becomes at doing it.[2]

To summarize this approach briefly, it is recognized that there are three dimensions to any task a student may be asked to carry out: a physical

dimension, a conceptual dimension and a linguistic dimension. Thus we can identify what we want a student to *do* (some activity, such as listening to a teacher or reading a book) about what *subject* (electric circuits, for example) with what *language* (namely the English needed to express the concepts).

It is further felt that for any task these three dimensions should be directly relevant to the skills finally required by the students in their subject studies, at a level of focus as closely approximating that of the target as possible. Thus, training in the skill of lecture notetaking, for example, is designed as a series of tasks graded for physical, conceptual and linguistic difficulty which successively approximate the lecture notetaking task in the parent college.

1.2. The problem

With this approach the ELC claims success in improving the communicative competence of those students who enter its courses with a foundation of language skills on which to build. It has become evident, however, that there exists a minimal level of competence below which success on such courses is unlikely. Students without the necessary foundation skills frequently find themselves unable to cope with the higher level focus on study skills and tend to opt out of the learning process altogether. On the ELC assessment scale this minimal level of competence was identified as band 3, which is described as:

> Overall non-communicator, little better than a beginner; possibly a false beginner. Can get snatches of the meaning of a dialogue. Quite unable to hold his own in English.[3]

Thus the problem defined itself: what could be done for those students who wish to undertake English-medium subject studies but have not yet reached the level of English proficiency necessary for them to cope with the high-level-of-focus tasks of mainstream courses?

1.3. Possible solutions

One possible response to this problem would be an admission of defeat. These students clearly have a long way to travel before they will be able to profit from an English-medium course of study: we might decide that this distance is too great for us to be able to help, and debar from entry to ELC courses all those who cannot demonstrate band 3 competence.

Another possibility would be to provide a course in General English. However, it must be recognized that all these students have studied General English in some form or other at school for six years. If a General English course has not, during that time, brought them to the

level required for ESP studies there is little reason to suppose that they would benefit from more of the same type of course.

Of course, there is no saying that it would necessarily be "more of the same". There exist a number of different types of course all purporting to teach General English and it may be argued that one of these might achieve what the school course has not. It all depends on the way in which the course is "General". A course which purports to be "General" because it teaches the general skills of reading, writing, listening and speaking may indeed be successful in preparing students for a course in more specialized skills such as lecture notetaking and science report writing, since competence in these study skills must assume a basic competence in linguistic skills. However, if "General" also implies "general vocabulary" then there is a strong argument against such a course, given the limited time that the students have available for study. Some, at least, of the vocabulary would be irrelevant to their needs, thus constituting an unnecessary burden. For example, in one successful General English course for this level of student,[4] words such as *typist, actor, horror, army, mail-bag* and *Frankenstein* occur in the first few pages: students must understand and in some cases learn these words in order to proceed with the course, yet they are unlikely to find them useful in their university career.

If "General English" is taken to mean "about general topics" then the problem is compounded. Lexis is again likely to be irrelevant, because general subject matter must generate general vocabulary, and in addition the chances of finding good materials rooted in the relevant culture are slight. A mismatch here could make such a course not only difficult to use, but even offensive. In the course mentioned above, for example, there is a diagram of a woman having breakfast in bed on page 2, and on page 26 a paragraph about men and women in a pub; both of these could cause offence in an Islamic culture.

A third possibility is to recognize that these students, although of a low proficiency level, do have specific purposes for studying English, and to design a tailor-made ESP course for them. Such a course would aim to be culturally acceptable, to operate on specific topics giving rise to relevant lexis, and to provide the students with those linguistic and communication skills which will enable them eventually to progress to mainstream ESP courses in the Centre.

This solution was adopted, and the resulting Foundation course meets this description. It provides at present for the students of three English-medium clients: the College of Engineering, the Faculty of Meteorology and Environmental Studies and the School of Environmental Design. These students are available for one semester of full-time tuition, 20 hours per week for a period of 14 weeks, giving a total of 280 contact hours for the course.

2. Objectives of the foundation course

2.1. General approach

The objectives of most ELC programmes are based upon an analysis of the communicative demands made on the student by his college. Thus they are determined by factors external to the Centre. The objectives of the Foundation course, on the other hand, are determined by internal factors, namely that the student must, by the end of the course, be in a position to follow further ELC courses. Thus its objectives are one step removed from the eventual requirements of the college which, while still relevant, are not overriding.

ELC programme objectives are described in terms of the three dimensions of task mentioned above: conceptual, linguistic and physical. Thus:

> the objectives do not describe the language skills needed by the student in isolation, but in relation to the . . . content expressed by the language and the channel by which communication takes place.[5]

The content, sometimes called "carrier" content, is the topic chosen to "carry" language: it could be the gas laws of physics, for example, or an aspect of English grammar, or knitting. Carrier content is expressed in language: linguistic expression of the topics suggested above might produce:

> *Volume is inversely proportional to pressure for a constant temperature. The third person singular of the present simple tense ends in the letter s. Knit one, purl two.*

The channel by which communication takes place relates to the physical aspect of task: whether students are to understand a lecture and take notes, for example, or discuss a grammatical point with the teacher, or follow a knitting pattern.

The objectives of the Foundation course are similarly defined in terms of these three interrelated aspects.

2.2. Conceptual aspect

The potential problems in basing a course for students at this level of competence, with their specific needs, on general rather than specific content, were outlined earlier. They point to the need to examine which conceptual areas the students will find it useful to be able to manipulate in English. These naturally fall into two categories: firstly the academic subjects the students will encounter and secondly the

personal issues about which they will need to interact with English speakers while following the course.

Since all students are registered for what might broadly be called science studies the topics chosen reflect a common core pre-university general science and mathematics syllabus. Unfortunately it is difficult to define exactly what is common core for these students.

> Students come to the English Language Centre with widely varying levels of scientific knowledge. It is therefore difficult to find science subjects that are neither seen as patronising by some students nor are above the heads of others.[6]

Thus the academic carrier content is based upon what has been found by experience to be common, or at least not totally unfamiliar, to a majority of students.

It has also been recognized that for a number of years ahead the students will be interacting with college and ELC staff through the medium of English about a number of non-academic subjects, including such everyday issues as excuses for absence, explanations for late submission of assignments and enquiries regarding the date and time of examinations. Thus, included in the syllabus are some more general topics. To merit inclusion these should be both culturally familiar and acceptable to the students, and have an obvious potential usefulness in their social interaction with English-speaking university staff.

2.3. Linguistic aspect

The linguistic aspect of the course is determined by the carrier content syllabus. Analysis of this carrier content yields a number of general notions such as *measurement, cause and effect, number.* The exploitation of these leads in general to a notional organization of the linguistic syllabus. However, it seems unnecessary to follow this approach to syllabus design dogmatically if, at times, it is organizationally more convenient to use other criteria. For example, in some cases the manipulation of a notion depends so heavily upon certain structures that these are best treated separately as syllabus items. Such items include the present passive form of the verb in descriptions of structural relationships (*the thermometer is supported by the clamp which is fixed to the stand*) and the past passive form in depersonalized written accounts of procedure and method (*the apparatus was assembled and the bunsen burner was lit*).

At the level of terminology there is a large number of scientific terms that are fundamental to discussion of each area of science – terms which must be known before students can start to increase their

scientific knowledge through the medium of English. A distinction must be made here between those words which describe concepts familiar to the students and those which are learned together with new concepts as part of further study. Notwithstanding the point made above, that it is difficult to pitch the carrier content at precisely the right level for all students, it is clearly the job of the Foundation course to teach the former (ie the familiar) rather than the latter (ie the new), in other words to cover that lexis which their college lecturers will assume to be known, and no more.

In addition, some elements of the English of social interaction have been included, together with lexis reflecting those culturally acceptable and familiar non-academic subjects mentioned above.

2.4. Physical aspect

The aim of the Foundation course is to raise the communicative competence of students to the level where they can follow other ELC courses. The physical aspect of the objectives of these later courses is, as already described, wholly study skill oriented. It is felt that it is precisely this total orientation towards study skills which makes such courses unsuitable for low proficiency students.

Thus the physical aspect of the Foundation course objectives is defined not in study skill terms but in terms of linguistic and communication skills. The students are required to function in the four basic language skills of reading, writing, listening and speaking. In addition it is necessary for them to be able to manipulate non-verbal means of communication used in science, for example encoding information into and decoding it from equations, flow diagrams, charts and graphs.

3. The design of the foundation course

3.1. Authenticity

At the ELC a task performed by a student is considered authentic if:

> the conceptual aspect of the task, and its physical and linguistic aspects, are based upon operations the student is required to perform in his parent college . . . [this] implies that it is acceptable to a subject specialist in content and expression.[7]

Given this strict view of authenticity, it is clear that the Foundation course cannot demand full authenticity of student tasks.

Authenticity is least feasible in the physical dimension of the task. It would preclude, for example, the use of the language laboratory for all

but trainee telephonists and air traffic controllers, as only such students would require training which involves listening to disembodied voices through headphones. It would also preclude any activity in which students are asked to discuss among themselves in English, as such interaction would normally take place in Arabic. Clearly, then, as these and other potentially useful classroom activities are non-authentic, it is unnecessarily restrictive to demand authenticity of the physical aspect of the task.

Similarly it is too limiting to demand that all materials are linguistically authentic if "authentic" implies "natural", as this would not allow for simplification. The material must, of course, contain correct language, but there is no reason why it must necessarily be natural language. For example, instructions for an experimental procedure may be given in short, disconnected sentences, suitable for the students' ability. This simplified language, though grammatically correct and contextually appropriate, could not be considered natural, and would have to be rejected as non-authentic.

It is only the conceptual dimension that a demand for authenticity is justified: the materials must not contain, as some published courses do, regrettably, bad science. The vulnerability of the language course writer to this pitfall is recognized, in the ELC, and the assistance of science-qualified staff makes scientific accuracy a feasible criterion.

On the Foundation course, then, materials design aims not at strict authenticity but at conceptual accuracy and linguistic correctness and appropriacy.

3.2. Relevance and motivation

The relevance of study skills course to the target goals of students is obvious and attractive. Yet it is not clear that the students are automatically motivated by this relevance. Motivation will depend upon the perceived relevance of the course to what they see as their immediate goals. This in turn reflects not only the extent to which the students see themselves as needing a language course at all, but more importantly the extent to which they see their study skills course as the type of course they need. There exists the danger that they will see a high-level-of-focus study skills course merely as an inferior version of their college courses, and thus as just another obstacle to be overcome before they are allowed to start their "real" studies.

Fortunately such problems of motivation do not arise with Foundation course students. These students have, on entry, such a low level of competence in English that they cannot fail to be aware that they badly need further language study before following college courses. For all

the scientific orientation of the carrier content it is clearly a language course, and as such it caters explicitly for their linguistic needs. Therefore the students are motivated by the obvious relevance of the course to their immediate goals.

3.3. Learning by doing

As mentioned earlier, the basic premise of the ELC is that students learn by doing. What they are expected to learn has been described in the course objectives. The next question is what the students should *do* in order to learn with the maximum efficiency.

It is tempting here to confuse the most appropriate task for meeting the physical objectives of the course with that most appropriate for meeting the linguistic objectives. Thus it is self-evident that a student will not learn to read unless presented with text, nor learn to listen unless spoken to. Yet that is not to say that giving a written or spoken input is necessarily the best way of getting a *linguistic* point across.

To digress for a moment, let us look at a familiar ELT classroom problem. The teacher is often occupied for a large part of the time with explaining and illustrating language points, sometimes speaking to the students, sometimes writing on the board, while the students sit and either listen, read or copy where appropriate. At the end of the lesson, when the students are quizzed upon what has been taught, the teacher is frequently disappointed at how little has actually been learned, even though his presentation may have been crystal-clear and pitched at the right level. Yet he should not be surprised at this. Sustained listening is a tiring activity, extremely demanding on concentration. It is also, unfortunately, the easiest activity to opt out of unobtrusively. Further, even if the teacher has managed to hold the students' interest and concentration it often transpires that what has been learned has not been remembered. A significant reason for this, perhaps the main reason, is that the students have been engaged in what are primarily receptive tasks rather than productive ones.

Thus, to the question *What do the students do in order that they learn with maximum efficiency?* we can answer *As much as possible, providing it is productive rather than receptive.* If a student is working actively towards the completion of a task which leads to the understanding or reinforcement of a learning point he will be learning it with greater efficiency than if he is asked merely to be the recipient of information. Even with the so-called passive skills of reading and listening, tasks can be devised which require active reading and listening – reading and listening with a definite purpose.

One way of ensuring a high ratio of productive to receptive tasks is to

set the students problems to solve, and this is the approach attempted in the Foundation course. A problem-solving approach can be used at all stages in the learning process, from understanding through practice to recall. The following examples are drawn from two linguistic areas, the notional area of *cardinal numbers* and the structural point *the present simple tense.*

4. Foundation course materials*

4.1. Understanding

One technique for presenting new information is to embed it in a reading passage so that the student is led to an understanding of the linguistic point while processing the text. In sample 1, in addition to recycling the verbalization of numbers and the lexis of the conceptual area "change of state" the different forms of the present simple verb are presented. The students are asked to underline the verbs and look at the forms. These can be elicited, then written on the board, to help the students see the patterns. Then the second part of the dialogue is given (sample 2) and the students asked to fill in the blanks, using the verbs in the first part as a guide. If more introduction is needed, the model for the verb forms can be extracted and the students asked to choose one of two forms based on the model (*samples 3 and 4*).

With something as familiar as cardinal numbers we can use another approach. All of the students on the Foundation course are what may be described as false beginners. Thus we can expect them to have a considerable latent knowledge of the language. We can, therefore, introduce a new point by setting a task which reawakens some of this latent knowledge. *Sample 5* is one such task – a simple matching exercise. If we choose to introduce such a point orally we can allow the students time to attempt a verbalization before giving them the model (such an exercise is suitable for language laboratory presentation).

One problem which frequently occurs in the presentation of cardinal numbers is in discriminating between *-teen* numbers and *-ty* numbers, such that student attempts at verbalizing say 13 and 30 are ambiguous. This can be handled with a minimal pairs exercise (*sample 6*). The teacher says a number which the students must identify as belonging to either list 1 or list 2. They must raise one or two fingers to show their answer.

Two other problems that frequently need attention are the positioning of *and* in numbers greater than 100 (e.g. **one hundred twenty and three*) and an intrusion of the plural marker after *hundred* and *thousand* (e.g. **three thousands, five hundreds and twenty*). A useful

*The discussion in this section refers to samples 1–16; see pp. 116–119.

type of problem-solving exercise to deal with this is a multiple-choice hypothesis-testing exercise (*sample 7*). The students must select which of the possibilities is correct, making hypotheses based upon their latent knowledge. The teacher circulates during this activity so that each hypothesis can be tested against him until all the students (hopefully) arrive at the correct option. The teacher then writes some similar numbers on the board with which they can confirm their hypotheses, and the structural rule can be elicited.

4.2. Practice

Once the students understand the point being taught, problems need to be set to practise this point. For cardinal numbers, practice exercise types include matching exercises (*sample 8*), encoding exercises from words to numbers (*sample 9*), decoding exercises from numbers to words (*sample 10*) and pair dictations (*sample 11*).

A useful progression for practising structural points like the present simple tense is to start with a hypothesis-testing exercise (*sample 12*) where the students are provided with a number of possible choices as to the correct form, move on to a troubleshooting exercise (*sample 13*) where they have to decide whether a sentence is grammatically correct or not and, if not, correct it, and thence to some sentence skeletons (*sample 14*) where they have to generate grammatically correct sentences from notes.

To know whether or not their attempts are correct the students need a source of correct information. To a limited extent this is provided by the teacher, but better is a printed account of the linguistic content. The students are therefore given a book which serves the dual purpose of a model to which they can refer during the practice stage and a record of what should have been learned. The main structural teaching points are highlighted as boxed Language Notes (*sample 15*). The book also contains oral exercises for students who miss the lesson for some reason, or who wish to revise with their friends. All written exercises are packaged under a separate cover so that teachers can collect written work for checking without depriving students of their lesson model and record.

4.3. Recall

At some stage following the input and practice sessions the linguistic teaching point needs to be recycled. This can be done in two ways, either covertly, by using the re-recycled language as a vehicle for a new teaching point (illustrated in *sample 1* where an introduction to the present simple also recycled the lexis of "change of state" and gave practice in articulating cardinal numbers) or overtly, using recall

exercises. For cardinal numbers a matchmaker exercise is given (*sample 16*). Student A has a list of ten numbers and student B another list containing ten sets of four numbers. When student A reads a number, student B must listen carefully and attempt to match what he hears with what he reads. He may be able to make the match, as in item 1, or unable, as in item 4, in which case he must write in the correct number himself.

5. Conclusions

The results obtained by students admitted to the Foundation course have been encouraging. Although statistical analysis of the throughput of students is not yet complete, it appears that more than 50% of students who have completed the course require only one further semester in the ELC before passing on to college studies.

In order to test the linguistic progress of students a sample were given the A. L. Davis test[8] in both the first and the last weeks of their studies, with the results shown below.

(n=23)	Pre-test	Post-test
mean	20.4	40.9
S.D.	15.2	19

Critical values of t (one-tailed)

(df=22)	α	t
	0.05	1.717
	0.01	2.508
	0.005	3.792

A t-test of the significance of the difference between the means gives:

$$t = \frac{20.5}{3.27} = 6.27$$

Thus t value of 6.27 is highly significant. p is less than 0.005.

In the pre-test the mean was 20.4 and the standard deviation 15.3. By the post-test the mean had doubled to 40.9 with a standard deviation of 19.0. A test of the significance of this difference between the means gives a t-value of 6.27, which implies a probability of the improvement occurring by chance of less than 0.5%.

In conclusion, then, it seems fair to say that the Foundation course has proven itself successful in achieving its aim to prepare low-proficiency students for their study skill courses at the ELC. It would be interesting to give the Foundation course to a control group of students with a higher level of competence and see how well the approach works in comparison to the mainstream approach. Such a trial would help indicate whether the line between the Foundation course and mainstream ELC courses has been drawn correctly, and would give some idea how widely applicable the approach may be to situations outside the ELC.

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Sample 1
PROBLEM FOR UNDERSTANDING PHASE: HYPOTHESIS FORMATION

Look at the verbs in this conversation between a teacher and some students:

TEACHER	**Ahmed, what's the freezing point and boiling point of mercury?**
AHMED	**It freezes at -39°C and it boils at 80°C.**
TEACHER	**The freezing point is correct, but it doesn't boil at 80°C.**
AHMED	**287°C?**
TEACHER	**No.**
AHMED	**2,687°C?**
TEACHER	**Hamed, does mercury boil at 2,687°C?**
HAMED	**No.**
TEACHER	**Well, what temperature does it boil at?**
HAMED	**Minus 253°C.**
TEACHER	**Time for a coffee break.**

Sample 2
PROBLEM FOR UNDERSTANDING PHASE: HYPOTHESIS TESTING

Use the examples to complete the verbs as the lesson continues after the coffee break:

TEACHER	**Fahed, what happens to steam at 100°C?**
FAHED	**It_____**
TEACHER	**No, it _____ solidify !! Ali?**
ALI	**_____ ?**
TEACHER	**No, it doesn't freeze either. Hamed?**
HAMED	**_____**
TEACHER	**Yes! Correct!**
ALI	**Why?**
TEACHER	**Why what?**
ALI	**Why _____ at 100°C?**
TEACHER	**Because that is the point of condensation of steam.**
ALI	**And what is the point of condensation of ice?**
TEACHER	**Time to go home.**

Sample 3
PROBLEM FOR UNDERSTANDING PHASE: HYPOTHESIS FORMATION AND TESTING

Look at these sentences:

Paper burns easily.
Glass breaks easily.
Iron and steel weigh more than aluminium.
Some plastics break easily.
Some chemicals burn easily.
Aluminium weighs less than lead.

Now choose the correct form:

1. Water solidify at 0°C.
   Water solidifies at 0°C.
2. Iron and steel melt at very high temperatures.
   Iron and steel melts at very high temperatures.

Sample 4
PROBLEM FOR UNDERSTANDING PHASE: HYPOTHESIS FORMATION AND TESTING

Look at these negative sentences:

Iron does not burn easily.
Most metals do not melt below 0°C.
Steel does not break easily.
Most solids do not sublime.
Iron and steel do not weigh less than aluminium.
Water does not solidify at 100°C.

Now choose the correct form:

1. Aluminium do not weigh more than lead.
   Aluminium does not weigh more than lead.
2. Ice do not melt at 10°C.
   Ice does not melt at 10°C.
3. Most gases in air do not have colour.
   Most gases in air does not have colour.
4. Iron and steel do not burn easily.
   Iron and steel does not burn easily.
5. Wood do not break easily.
   Wood does not break easily.
6. Mercury and aluminium do not sublime.
   Mercury and aluminium does not sublime.

Sample 5
PROBLEM FOR UNDERSTANDING PHASE: MATCHING EXERCISE

Match these words with the right numbers:

two	four	zero	eleven	nine	six
seven	one	twelve	three	twenty	five
eight	ten	thirty	fifteen	e hundred	

0	7		
1	8	20	
2	9		
3	10		
4	11	30	
5	12		
6	15	100	

Sample 6
PROBLEM FOR UNDERSTANDING PHASE: MINIMAL PAIRS EXERCISE

Minimal pair exercise items:

LIST 1:	LIST 2:
13	30
14	40
15	50
16	60
17	70
18	80
19	90

Sample 7
PROBLEM FOR UNDERSTANDING PHASE: MULTIPLE CHOICE, HYPOTHESIS TESTING

THE NUMBER 257 IS:

A two five seven
B two and fifty-seven
C two fifty and seven
D two hundred and fifty-seven
E two hundreds and fifty-seven
F two hundred and fifty and seven
G two hundreds and fifty and seven
H two hundred fifty and seven
I two hundreds fifty and seven

Sample 8
PROBLEM FOR PRACTICE PHASE: MATCHING EXERCISE

Match the numbers:

A	731 001	( )	three hundred and fifteen thousand three hundred and thirteen
B	513 010	( )	fifty thousand three hundred and twenty-nine
C	315 330	( )	seven hundred and thirty-one thousand and one
D	15 329	( )	three hundred and thirty thousand and seventeen
E	330 017	( )	five hundred and thirty thousand, one hundred and one
F	30 173	( )	three hundred and fifty thousand, three hundred and thirteen
G	530 101	( )	fifteen thousand three hundred and twenty-nine
H	315 313	( )	seven hundred and thirteen thousand one hundred and one
I	713 101	( )	thirty thousand one hundred and seventy-three
J	350 313	( )	three hundred and fifteen thousand three hundred and thirty
K	50 329	( )	thirteen thousand one hundred and seventy-three
L	13 173	( )	five hundred and thirteen thousand and ten

Sample 9
PROBLEM FOR PRACTICE PHASE: ENCODING EXERCISE, WORDS TO NUMBERS

Write these as numbers:

Four hundred and sixty-three _____
Eight hundred and seventy-five _____
Three thousand and thirty _____
Seventy-three thousand, one hundred and eight-nine _____
One million, eight thousand and two _____

Sample 10
PROBLEM FOR PRACTICE PHASE: DECODING EXERCISE, NUMBERS TO WORDS

Write these numbers as words:

8	_____	56	_____
13	_____	61	_____
25	_____	79	_____
32	_____	84	_____
47	_____	90	_____

Sample 11
PROBLEM FOR PRACTICE PHASE: PAIR DICTATION EXERCISE

Read these numbers to student B; he will write them down:

(a)	13	(f)	2 080
(b)	50	(g)	2 801
(c)	723	(h)	123 456
(d)	237	(i)	300 014
(e)	1 519	(j)	1097 025

Student B will now read you some numbers; write them here in figures.

(a)	_____	(f)	_____
(b)	_____	(g)	_____
(c)	_____	(h)	_____
(d)	_____	(i)	_____
(e)	_____	(j)	_____

Sample 12
PROBLEM FOR PRACTICE PHASE: MULTIPLE CHOICE, HYPOTHESIS TESTING

Circle the correct word(s) in these sentences:

1. A gas changer / changing / changes / change to a liquid at its boiling point.

2. Do / Is / Are / Does the number 63 having / have / has / had two digits?

3. Does / Do / Is / Are the number 63 an odd number?

4. Is / Are / Do / Does you read / reads / reading / reader a fraction as cardinal over ordinal?

5. Phosphorus is not boil / is not boils / do not boil / does not boil / do not boils at 17°C.

Sample 13
PROBLEM FOR PRACTICE PHASE: TROUBLESHOOTING

Circle CORRECT or INCORRECT in these sentences.
If there is a grammatical mistake, change the sentence.

1. **Mercury freezing at -39°C.**
   CORRECT **INCORRECT**
2. **Oxygen is not condense at -218°C.**
   CORRECT **INCORRECT**
3. **Do all metals melt at very high temperatures?**
   CORRECT **INCORRECT**
4. **Do a circle has one straight line?**
   CORRECT **INCORRECT**
5. **A triangle do not has four side, it are three side.**
   CORRECT **INCORRECT**

Sample 14
PROBLEM FOR PRACTICE PHASE: SENTENCE SKELETON

Write out these notes as full sentences:

1. **Alcohol/boil/100°C**
2. **Number 103/have/two digits?**
3. **Phosphorus/not/boil/17°C**
4. **Iodine/sublime/solid/vapour**
5. **Square/not/have/curved sides**

Sample 15
STUDENT RECORD MATERIAL: LANGUAGE NOTE FOR CARDINAL NUMBERS

Language Note
Look how we read these numbers:

34 ..... thirty-four
134 ..... one hundred and thirty-four

56 ..... fifty-six
1256 ..... one thousand, two hundred and fifty-six

81 ..... eighty-one
5081 ..... five thousand and eighty-one

We use the word "and" after the hundreds and before the tens in a number.

We do not use the plural "S" with hundreds, thousands or millions in a number.

Sample 16
PROBLEM FOR RECALL PHASE: MATCHMAKER EXERCISE

Pairwork matchmaker exercise:

LIST A:	LIST B:	
1. 10,021	1. 10,021,000	6. 7,803
2. 174,691	10,210	7,308,423
3. 1,900,000	10,021	7,380,432
4. 62,413	10,210,210	7,803,234
5. 222,943		
6. 7,803,432	2. 174,691	7. 3,990,880
7. 3,919,880	741,691	3,919,380
8. 277	147,691	3,919,818
9. 6,491	164,691	3,919,880
10. 9,001		
	3. 1,800,000	8. 226
	2,800,000	277
	1,090,000	272
	900,000	262
	4. 72,413	9. 6,194
	62,430,	7,249
	72,430	4,196
	26,413	9,164
	5. 222,943,000	10. 9,100
	222,349,000	9,100,000
	222,943	9,001
	222,349	9,010

Section 2

Integrating Groupwork with Medics Materials

Anne Collins

1. Advantages of groupwork

As many teachers have discovered, groupwork can be a very rewarding and revealing technique in an ESP classroom. In this chapter I would like to describe some of the ways in which we have been using groupwork in the ELC first year Medics course both in the exploitation of existing materials and the design of new materials specifically for groupwork.

Why did we choose to integrate groupwork with our materials and how did we decide which components of our course were most suitable? Before we look at the materials in closer detail, let us briefly summarize the main advantages of using groupwork:

(a) Students generally enjoy the interactional approach to learning created by groupwork.
(b) Several people at once can participate actively in class instead of just one student in a student–teacher situation.
(c) Some students who display reluctance to participate in a conventional class setting are more forthcoming in small groups composed of peers.
(d) Groupwork can create and encourage the individual's insight into his comparative strengths and weaknesses.
(e) Students often accept corrections and explanations more readily from their peers in the natural give-and-take of groupwork activity than from their teacher.
(f) Because groupwork is learner-centred, the students, not the teacher, control the speed at which they learn.
(g) Groupwork offers a greater variety of classroom activities than conventional student-teacher learning. (Caution: like any other valuable procedure or activity, groupwork can be overused).

Our first year course, which the materials described in this article

relate to, consists of about 33 teaching weeks, and of these the first 10 weeks constitute the Intensive Phase, when the students have a 20 hour load of English every week. They are divided into English classes ranging in size from 10 to 17 students, each with a class tutor. When groupwork is used, the groups generally consist of three to five students, or sometimes two teams.

The groupwork we used this year falls roughly into two categories – groupwork based on materials and groupwork specified by materials. The activities generated by the groupwork cover all four language skills – the receptive skills of reading and listening, and the productive skills of writing and speaking.

2. Groupwork based on Medics materials

2.1. The reading passage as input

2.1.1. Approach to exercises

The materials used in the Reading component of the Medics Intensive Phase provide a sound base for groupwork at a fairly simple level. As this material is taught early on in the course, during weeks 1 to 10, the initiation of groupwork at a stage when individuals still lack confidence in manipulating English can be very helpful to students.

After a reading passage has been presented to and read by the students, and the relevant lexical items and linguistic structures been focused on and discussed, the teacher can decide which exercises are suitable for groupwork. Any exercise which requires decisions or judgements to be made out of a number of alternatives can very well be worked out in groups – for example, deciding whether particular statements about a passage are true or false. Exercises involving references or inference skills lend themselves well to the groupwork technique. A useful exercise is that of matching paragraph summary sentences to appropriate paragraphs. This can seem quite daunting to students when both the reading passage and the paragraphs are on the lengthy side but they find the difficulties considerably reduced when the task is attempted in groups.

The reading passage *Muscles of Movement* taught at about week 10 of the course consists of 12 paragraphs. In an exercise designed to increase awareness of the organizational structure of the passage, the students are given 12 summary sentences and asked to match them up with the paragraphs. The tutor of one group divided the students into small groups and gave each group two paragraphs to deal with. In this way, a somewhat forbidding exercise was made easier as each student worked out only part of it as a member of the group. The initial groupwork paves the way for this type of exercise to be successfully completed individually with future reading passages.

2.1.2. Groupwork and cloze

In the above example, we saw how an exercise was completed where each group's task was concerned with a *different* part of the *same* exercise, like a jigsaw. Other techniques involve groups working on the same task or problem at the same time, arriving at a group consensus answer, recording it and presenting it to the rest of the groups for comparison and discussion. The role of the teacher here is that of arbitrator.

Cloze reading texts can be completed in groups, with each group deciding on the correct answer for each blank and recording it. At the end, the teacher asks each group for their answers and writes all group answers on the board, so that all students can see the range of alternatives. Where there are different answers, groups can be asked to justify their choice, and other groups asked if they will accept or reject the alternatives. Finally, the teacher gives students copies of the complete text, or reads it to them while students listen in groups for the correct answer.

2.1.3. Sentence jumbling and groupwork

The following method of presenting a reading passage to students has been used very successfully on several occasions. Before students see a passage, the teacher cuts up the first paragraph of the text into sentences, jumbles them and puts them into an envelope. The class is then divided into groups of 3 or 4, and each given an envelope and told to arrange the sentences inside into the correct order. When all groups have completed this, which they usually very much enjoy, the teacher asks them for their decisions and also to justify their choices. Eventually the teacher can show the correct paragraph on an OHT. This type of exercise teaches students the skill of searching out discourse markers, contextual referents and other clues which indicate sentence connection, as well as providing a good introduction to and familiarizing the students with the content of a reading passage.

2.2. Competitions

We have found that with most classes it is possible to create a very productive sense of group spirit and group awareness by introducing competitions between groups. After completion of the exercises and discussion, many reading passages can be used as a platform for group competitions, and provide excellent practice in question forming and correcting techniques at the same time. The idea was first introduced in our programme using a reading passage from the integrated body of work forming the Topic *Cellular Respiration* taught at about week 13 of the course. The general procedure for organizing such a competition is as follows:

(a) Use a reading passage of suitable length and complexity for the ability of the group, and one which contains sufficient factual information.
(b) Divide the class into two groups. Group one is to concern itself with the first half of the passage and Group two with the second.
(c) Tell each group to make up four questions which should obtain fairly detailed information about their part of the passage, and decide on which answers they expect.
(d) Inform each group that they will ask the other group the questions afterwards.
(e) While groups are thinking of questions, the teacher guides each group towards questions which are neither too vague nor too simple. Since the questions are designed and answered as a group, this gives opportunities for weaker students who did not fully understand the text in class to get more help. It also checks comprehension, since neither suitable questions can be asked nor answers composed if the text's meaning has not been grasped.
(f) Each group takes turns to ask a question. The rules are that if the questions and answers are right both grammatically and factually, the team scores a point. If the other group notices a mistake on either count and can correct, they get a point. The teacher acts as arbitrator and score-keeper.

Although this competition was first used with a group of high ability, it can easily be adapted for slower groups by reducing the amount of text used and directing the questions by suggesting "Who", "Where", "What", etc.

An equally effective variation on this competition is for the teacher to prepare small cards, say 24 in number, on each of which is written the answer to a question. The teacher shuffles the cards and distributes an equal number to each group. The students have to think up questions which will elicit the answers they have on each of their cards from the other team. The scoring system is the same as for the previous competition.

2.3. Groupwork used to produce written work

Over the year we have found that groupwork can be used extremely effectively to produce written work, not only in the early stages of the course when students still lack confidence and ability individually, but also later, when a topic requires a written output of such complexity and length that students have great difficulty in producing a coherent piece of work on their own. Most students of a foreign language find writing the most difficult skill to acquire, and the sharing of ideas in the planning of a composition can really benefit them. Groupwork should not, of course, be used all the time, but should be gradually

phased out until individual pieces of work can be successfully produced.

The video film *The Chemistry of Food* is a short film of about eight minutes which we use at about week six of our course, as part of the Core Studies component. The students are given an accompanying gapped worksheet to fill in as they watch the video. After the video has been shown and the notes on the worksheet completed, the answers are checked orally and the video replayed and reviewed until the teacher is satisfied that all students have understood the film. All of the students will by this time have completed the worksheet shown in Figure 15.

CORE STUDIES UNIT 6 : CHEMISTRY OF FOOD — STUDENT SHEET 1

Introduction

Complete these notes as you watch the video.

Food — energy, growth

Examples: meat, vegetables, fruit, eggs, cheese, bread.

Constituents: Carbohydrates, fats, proteins.

(Also minerals, water, vitamins).

Carbohydrates

Elements: C, H O.

General Formula: $C_x(H_2O)_y$.

Divided into: monosaccharides: eg glucose, formula $C_6H_{12}O_6$

di saccharides: eg sucrose

Poly saccharides: eg starch produced by plants.

glycogen produced by animals.

Fats

Elements: C, H, O.

Glycerol and fatty acids combine to produce fats.

Two types: animal fats (usually solid)

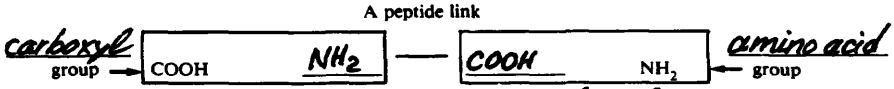
veg. fats (liquid)

Proteins

Elements: C, H, O, N. (also P, S.)

Made up of amino acids (25) linked together in polypeptide chains.

A peptide link



Polypeptide chains link together to form protein molecules.

FIGURE 15

Then the teacher can move on to the next phase – to produce a piece of writing based on the information from the video.

From the student sheet it will be seen that material the students need to include in their writing falls very neatly into four paragraphs – Introduction, Carbohydrates, Fats and Proteins. The teacher divides the class into three groups and proceeds as follows:

(a) Teacher informs each group that their task is to discuss and draft in paragraph form the information in paragraphs one, two and three respectively. A group recorder must be assigned for this purpose.
(b) Group drafts are submitted to the teacher for checking.
(c) A presenter from each group dictates checked group paragraphs to the rest of the class.
(d) Teacher leads a class discussion on the content of paragraph four – *Proteins*.
(e) Students compose this individually for homework.
(f) Each student submits the complete writing to the teacher for assessment.

In this way the whole class has contributed to the completion of the writing and the weaker students have benefited from working directly with the more able students. It is important for the groups always to consist of mixed-ability students, and also to vary the presenter and recorder each time that a piece of writing is tackled in this way, so that each student gets a chance to perform these tasks.

The benefits of this technique can be seen as students gradually become more and more competent at producing coherent pieces of writing on their own. During the later stages of the course, when they are clearly having difficulty because of the increased complexity of the tasks, such as describing the structure and function of the kidney (week 24) or the nervous impulse (week 27) it is helpful to re-introduce the groupwork approach, which usually produces very good results and restores students' confidence in their ability.

Different methods can be used apart from each group writing a different paragraph of a piece of work. Let us take another video – *Digestion and the Food we Eat* – shown at about week eight of the course. This requires a three paragraph written output entitled *The Digestive System*. The class has already filled in and checked the student sheets which accompany the video, including the sheet shown in Figure 16.

The writing passage is based on this input. With teacher guidance, the class produces an oral draft of paragraph one, containing a definition of digestion and a short description of the process from the mouth to the

CORE STUDIES UNIT 8 : DIGESTION AND THE FOOD WE EAT — STUDENT SHEET

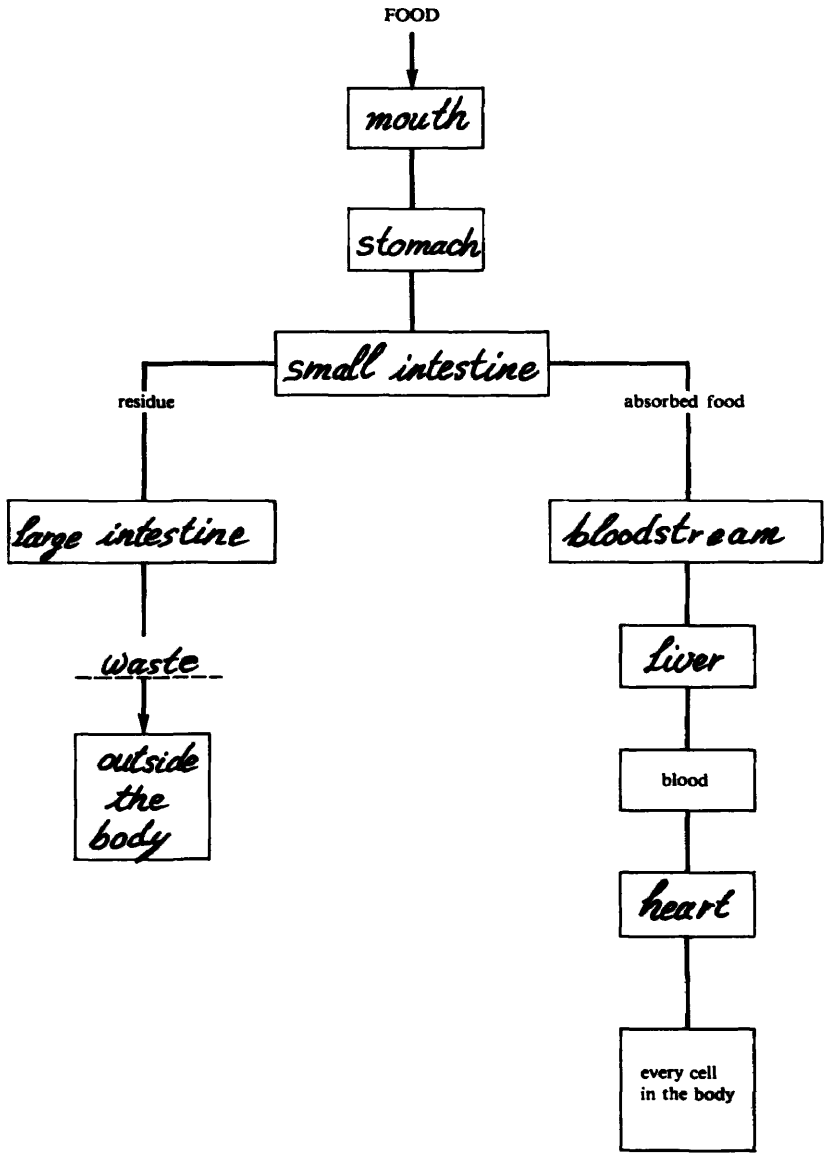


FIGURE 16

stomach. The teacher writes the draft on the board and the students copy it down before moving on to groupwork as follows:

(a) The teacher divides the class into three groups and informs them that the task of each group is to plan and draft paragraph two.
(b) Teacher moves round groups making sure students are including

the relevant information (the process of digestion in the small intestine and the passage of absorbed food to cells).

(c) Each group submits their draft to the teacher for checking.
(d) Teacher makes photocopies of the three drafts, and distributes each draft to all groups for discussion.
(e) Teacher leads a class discussion aimed at finalizing a class paragraph which includes the best features of each group draft. Teacher dictates this.
(f) Teacher asks students to complete paragraph three (*undigested food*) for homework and submit the complete writing for assessment.

Both these approaches illustrate how groupwork can be used to best advantage in the classroom – that is, not all the time, but as one of several learning situations alternating with teacher–student discussions, students working individually etc. It is important not to overuse the technique because students can get bored if put too frequently in small groups, which nullifies all the advantages of groupwork. It is best too if the composition of the groups changes each time, although the teacher must give conscious thought as to whether they should be of mixed ability or streamed. The teacher should also be on the look-out for obvious personality clashes within groups, as these will only lead to non-productivity of the whole group. The teacher should constantly be moving around the class, checking groups' progress and speeding them up if too slow.

2.4. Making tapes in groups

After a piece of written work has been produced by a group, the teacher might like to take this one stage further and ask the group to make a recording of their work. This is an activity more suitable for later in the year, when the students have gained enough confidence to perform it competently. Generally, they enjoy this type of activity very much as they can bring into use their *stage-management skills* in producing a tape.

It was found that this worked very well during the Topic *Heat.* This Topic began with the class being divided into three groups, and the task of each was to perform and write up a group report of an experiment covering a different aspect of the transfer of heat – *Conduction, Convection,* and *Radiation.* When this had been completed and each group had submitted their report to the teacher for checking, they were sent to the language laboratory to make a recording of their report. At the same time, each group was asked to think up five questions about the report and write them on an OHT. When all the tapes had been made, the students returned to the classroom to show their questions on the OHP and play their recording to the rest of the class. This created

excellent listening practice for the other students, who had to select specific information from what they heard on tape to answer the questions.

3. Groupwork specified by materials

3.1. Science activities

The Science Activities component of the Medics Intensive Phase is specifically designed for groupwork. From the early stages, student interaction under teacher guidance is encouraged when students ask each other for information about the nature and function of simple scientific instruments. When they have mastered the basic necessary English, they move on to measuring each other's height, weight, heartbeat, visual acuity etc. All of these activities take place in small groups, which then present their findings to the rest of the class.

The main part of the component is the performing and writing up of experiments and this always takes place in groups. As the groups become more and more competent, and do not have to rely so heavily on teacher guidance, all four language skills can eventually be practised. During the early stages, the teacher will probably have to *feed* instructions to groups, and write up experiments as a class project. However, gradually students can be weaned away from such heavy guidance, so that eventually they can take notes from dictated instructions (listening practice) or work out instructions for themselves from student sheets (reading practice). The experiments can be performed and reports drawn up (writing practice) and finally the findings presented to the rest of the class (speaking practice). The role of the teacher should be to move constantly round the groups, checking progress and making sure that the relevant information is being included, and that the English is correct.

Thus the unit of the small group plays an essential role in this component and fosters the sharing and interchange of ideas and suggestions between students in the carrying out and writing up of an experiment.

The technique generally works much better if each group is performing a different experiment on the same theme – *Osmosis, Preparation of Gases, Food Tests*, etc. as their findings are of greater interest and need to be expressed more accurately to the rest of the class. The presenting group can ask the other students questions about their report to check comprehension.

3.2. Groupwork and discussion

Many of the Topics covered in the Medics course include a discussion phase which involves groupwork. Students have to research and organise information on a certain subject – e.g. *Diabetes* or *Electrical Medical Devices*. Sometimes this information comes from a video or tapes, but more often it is from reference books. The groups, which are all dealing with a different aspect of the same subject, have to find the information relevant to their part of the subject and present it to the rest of the class in the form of a short talk. While they are researching and planning their talk, the teacher circulates and directs each group towards information which is neither irrelevant nor too complex.

Although the groups work together well, the presentations are not always successful, because by its very nature the material is usually concerned with new information for the students and is also quite complicated. Thus the presentations contain many lexical items which are unknown to the rest of the class, and are not always pronounced or explained clearly by the presenter and therefore a great deal of teacher intervention is required which hinders the flow of the talk. The discussion which the presentations are supposed to promote does not really succeed because it is difficult for the other students to discuss freely using lexis and concepts which they have only just heard and cannot manipulate. However, when the groups are asked to prepare an OHT or diagram to illustrate their talk, they seem to gain confidence from these visual props, which also aid explanation to the rest of the class, especially in the case of a description of a machine or process.

In the third section, I would like to show how, by using a slightly different groupwork technique, we can promote useful and constructive discussion among students, and at the same time, teach them to understand and use previously unfamiliar lexical items and concepts.

3.3. Multiple groupwork – listening/discussion

In the topic *Excretion & Osmoregulation* we experimented with a new technique which involved each student participating in two different groups and using the language skills of speaking and listening.

The subject for the groupwork was *Treatment of Patients with Kidney Failure*, in which the two main methods of treatment were focused on – the kidney machine (or artificial kidney) and kidney transplants. The students had already covered the structure and function of the human kidney in some detail.

First the whole class were shown a diagram of the kidney machine and asked how they thought it worked. From the discussion which followed,

the teacher was able to guide the students towards building up an accurate picture of the machine and the principles on which it functions. The students were then divided into three listening groups and each group given a cassette recorder and a tape. Each tape contained an interview with one of three different people – Tape A was an interview with a nurse who worked in the Dialysis Unit of a London hospital, Tape B was an interview with an actor receiving treatment from the kidney machine and Tape C an interview with a specialist in kidney transplants. None of the groups knew what was on the other groups' tapes. The procedure was as follows:

(a) *First stage: listening*
Each of the three groups listened to their tape and filled in a worksheet. The worksheet had been so designed that each group was asked exactly the same questions, but of course the answers varied according to which tape they had.
(b) *Second stage: discussion*
The tutor then divided the students into three discussion groups. Each discussion group consisted of representatives from each of the three listening groups. The task of the new groups was to share their information from tapes A, B and C fill in another worksheet using information from all three sources.
(c) *Third stage*
Each group then submitted their answers to the teacher for assessment.

In their original groups, the students had to use the skill of listening in order to arrive at certain group decisions and judgements to obtain the answers to the questions. It was also very important for each member of the group to be sure that they had the answer, because when they were moved into the new groups, each student found himself a representative of the old group and an essential factor in piecing the whole jigsaw puzzle of the worksheet together. The only way for the students to accomplish this was by discussion – thus using the skill of speaking.

Although the tapes contained several unfamiliar terms and descriptions which the students were not familiar with, they were able to work out in their groups accurate answers to the questions. Each student from the original group then became a *presenter* of this information – not to the whole class, but only to the members of the second group. In this way, the burden of presentation was shared among all students, and the tasks ensured that every student listened for information and every student discussed it in the new group.

4. Conclusion

In this chapter I have tried to show how by groupwork, we can create a

situation in which the teacher can produce active and useful participation in the class by several people at once, and how we have used this technique in Medics with considerable success. However, I have also tried to suggest how important it is that the teacher acts as controller and director of the groupwork, as uncontrolled groupwork creates only an illusion of learning. As Tony Wright said, getting students to work in groups successfully it as much a classroom management technique as anything to do with language teaching.

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Tasks and teaching: an ELC lesson

Marie-Helene Payne

This chapter is an attempt to show the relationship between ELC principles and practice in a lesson which took place towards the end of the 1980–81 English course for first year Medical students in the Women's Department of the ELC. Section one places the lesson in the context of both the teaching unit and the approach to task-based learning developed in the ELC. Section two gives an account of the lesson itself.

1. Lesson context

1.1. The teaching unit

The Medics course consists of several components, one of which is *topics*. For each topic an area of scientific content is selected and exploited in a variety of ways: through video, reading passages, slide/tape sequences, writing, research work, discussion or any combination of these. The lesson in question is part of a series of lessons on the topic *Electrolysis*.

Topics represent a high level of focus[1] in teaching at the ELC. At this level, *Electrolysis* can be said to contain three tasks: notetaking from a recorded lecture on electrolysis, the production of a written account of the process of electrolysis, and either the performance of a science activity or a discussion. The first task, notetaking, reflects the terminal objective of the Medics syllabus related to notetaking from a lecture on a subject associated with the first year curriculum. The second task, the written assignment, relates to the objective concerned with written assignments, tests and examinations in the faculty. The options for the third task are related either to the objective concerned with the first year laboratory practicals (the science activity) or to that related to general communication with the staff (discussion).

Thus the topic is related to four of the five terminal objectives agreed for the first year Medics students. Depending on the level of competence of a group, teachers generally take 8–16 hours to cover the whole topic. The tasks at this high level of focus can in turn be divided into more specific tasks, each focusing on lower level objectives as expressed in Medics band sheet descriptions. The lesson described in 1.2 corresponds to one of these lower level tasks. At the time of the lesson, students had

already completed the first high level task, i.e. seen a video and taken notes, and were ready to begin the second task. Now, by focusing on the structures and lexis of electrolysis, they were going to develop the language skills necessary to convey information on this subject orally. From here the students would be led in the follow-up lesson to a point where they would be able to provide a written account of the process of electrolysis.

1.2. The task

By definition, any ELC task, whether of high or low level, must reflect its terminal objectives. Thus, at any stage, students are learning by doing. All tasks like the terminal objectives, then, consist of the three aspects – conceptual, linguistic and physical[2]. The conceptual area of the present task comprises the subject of electrolysis, a topic familiar to the students from their Chemistry studies.

The linguistic aspect is the systemic language required for the articulation of electrolysis. This has been defined, for the purpose of the Medics programme, as shown in Figure 17.

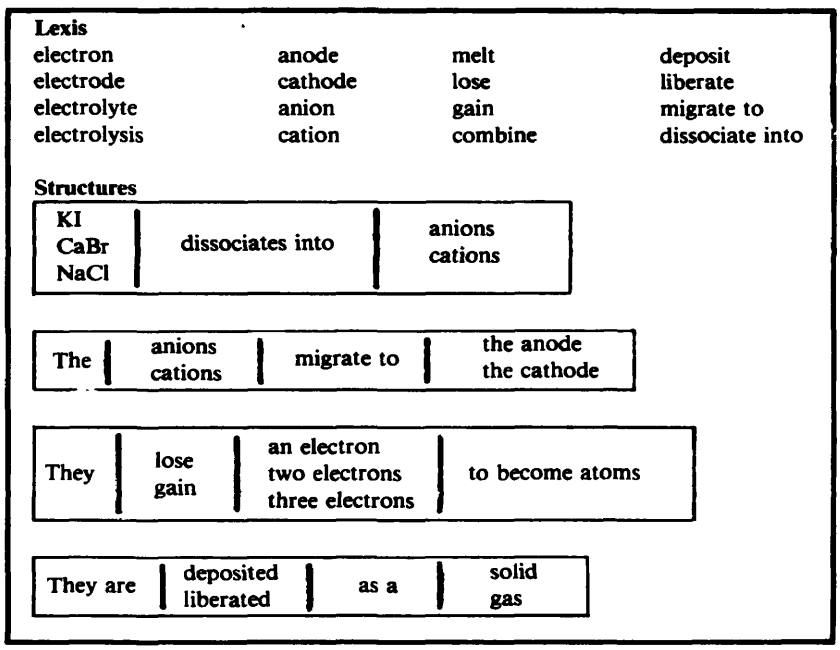


FIGURE 17

The physical activities which realize this language are:

watching and listening to a lecture
completing a table
answering questions
verbalizing key words
describing the process of electrolysis
composing complex statements
verbalizing equations
encoding spoken equations in symbol form.

1.3. Level of difficulty

The level of difficulty of an ELC task is lower than that of a terminal objective. Topic material is designed to be adapted to the level of a particular group of students anywhere between band four and six. It is flexible in that it is the teacher who determines how much support to give the students and the rate at which they progress through a topic. I considered the class of 11 students to be fairly homogeneous and rated their competence as approaching band five after six months teaching. The aim of the lesson was for the students to produce an oral account of electrolysis. Band five according to the Medics oral ability band sheet is described as:

—can participate in guided classroom communication
—can give a simple account for process or activity
—can answer straightforward questions.

I therefore planned my exploitation of the materials to limit the task by guiding the classroom communication; asking the students straightforward questions, and expecting them to give no more than a simple account of the process of electrolysis at the end.

Section two of this chapter gives details of how the materials for the lesson were adapted with these objectives in mind so that the level of difficulty was appropriate for this particular group of students.

1.4. Materials

The first main task of the topic, as stated in 1.1, had been lecture-notetaking. Since the input for this task also provided the basis for the next task, it is appropriate here to include the transcript of the video in order to ascertain its acceptability with regard to the ELC principles of authenticity and coverage of systemic language (see Figure 18).

According to ELC principles[3] the contents of materials used are authentic if they are acceptable to a subject specialist. Similarly, for the

Electrolysis **Videoscript**

Some liquids conduct electricity. When a compound which is either molten or in solution is decomposed by passing an electric current through it, that process is called electrolysis.

This is the electrolyte. An electrolyte must be able to conduct electricity which enters and leaves the liquid through the electrodes. The positive electrode is called the anode. Electrons leave the electrolyte through the anode. The negative electrode is called the cathode. Electrons enter the electrolyte through the cathode.

What happens when electricity passes through an electrolyte? Consider potassium iodide. When potassium iodide melts it dissociates into ions and is capable of conducting electricity.
The positive ions are called cations, the negative ions are called anions. When electricity is passed through the electrolyte the potassium cations migrate to the cathode, the iodide anions migrate to the anode. At the cathode, the potassium cations each gain an electron to become potassium atoms. Potassium atoms are deposited as a solid at the cathode. At the anode the iodide anions each give up an electron to become iodide atoms. Two atoms combine to give an iodine molecule which is given off at the anode as a gas.

Now let's see electrolysis in practice. This is an electrolytic cell and here the electrodes are made of graphite. The electrolyte is concentrated sodium chloride solution and some colour indicator has been added to show chemical change. Let's see it from above.

Water in the electrolyte is dissociated into hydrogen cations and hydroxide anions. The sodium chloride ionises into sodium cations and chloride anions. Watch what happens when electricity is switched on: hydrogen cations each gain an electron at the cathode. The hydrogen atoms combine in pairs to form molecules of hydrogen which are liberated at the cathode. The sodium ions and the hydroxide ions take no part in the electrolysis because they are less reactive than the hydrogen and the chloride ions.

FIGURE 18

language which expresses the content to be authentic, it must be that of the relevant conceptual area. Since the video *Electrolysis* has been found satisfactory to those members of staff with a chemistry background, the content of the video may be considered authentic. However, computer analysis has not yet provided the linguistic profile of the above conceptual area. Thus it has been necessary to turn again to the intuitions of the above-mentioned subject specialist in order to confirm that the video does represent the systemic language of electrolysis.

2. The lesson

2.1. Overall objective

The overall objective was to enable the students to produce an oral account of the electrolysis of given electrolytes as preparation for a writing task.

2.2. Intermediate aims

The intermediate aims were for the students to be able to use the following process verbs appropriately:

melt	*gain*	*deposit*	*dissociate into*
combine	*lose*	*liberate*	*migrate to*

2.3. Aids

Videotape: *Electrolysis*

Student worksheet: Table 2 (process verbs to be filled in appropriately)

Overhead transparencies:
model description of the electrolysis of K1 with key words on an overlay.
the electrolysis of NaCl expressed as chemical equations

Blackboard: A diagram drawn to elicit an oral description of the electrolysis of KI.

Word cards: Used by students to make up a sentence about hydrogen cations.

2.4. Lesson procedure

2.4.1. Video prefocus

The students studied Table 2 before watching the video.

2.4.2. Presentation

(i) The video was played. The students filled in the missing verb forms in Table 2 while viewing the video.
(ii) The answers were checked. As students answered, mistakes in pronunciation were corrected, e.g. *dissociate*/dɪˈsəʊʃɪeɪt/, *liberated*/libəreɪtɪd/. Problems did occur with noun/verb concord and the use of active/passive. The right forms were elicited. The difference in meaning between *decompose* and *dissociate* was elicited.

2.4.3. Practice

(i) **I** and $\mathbf{I}^+$ were written on the board. The correct pronunciation was elicited *iodine*/àɪəadɪn/; *iodide*/ˆaɪədaɪd/.
This was expanded with **Cl**, $\mathbf{Cl}^+$ (*chlorine* and *chloride*).
(ii) A series of oral questions followed, to elicit the essential content of a description of the electrolysis of potassium iodide (Figure 19).

Student worksheet

TABLE 2 (Form short sentences by including an appropriate verb form) student worksheet

Electrolytes	conduct	electricity
Compounds	are decomposed	on electrolysing
Compounds	are dissociated	into ions
Ions	migrate	to the electrodes
Some molecules	are deposited	as a solid
Some molecules	are liberated	as a gas
Atoms of diatomic molecules	combine	in pairs

Questions	Anticipated Answers
1) What happens when KI melts?	It dissociates/is dissociated into potassium and iodide ions.
2) What do we call these ions?	Cations/anions
3) What happens to the cations when an electric current is passed through the electrolyte?	They migrate to the cathode.
4) What happens to them at the cathode?	They gain an electron to become potassium atoms.
5) What happens to the atoms?	They are deposited at the cathode as a solid.
6) What happens to the anions when an electric current is passed through the electrolyte?	They migrate to the anode.
7) What happens to them at the anode?	They lose an electron to become iodine atoms.
8) What happens to two iodine atoms?	They combine in pairs to give a molecule.
9) What happens to these molecules?	They are liberated/evolved.
10) In what form?	As a gas.

FIGURE 19

To promote each answer, a diagram was developed on the blackboard. After each answer had been established the corresponding section of the model description was revealed on an OHT.

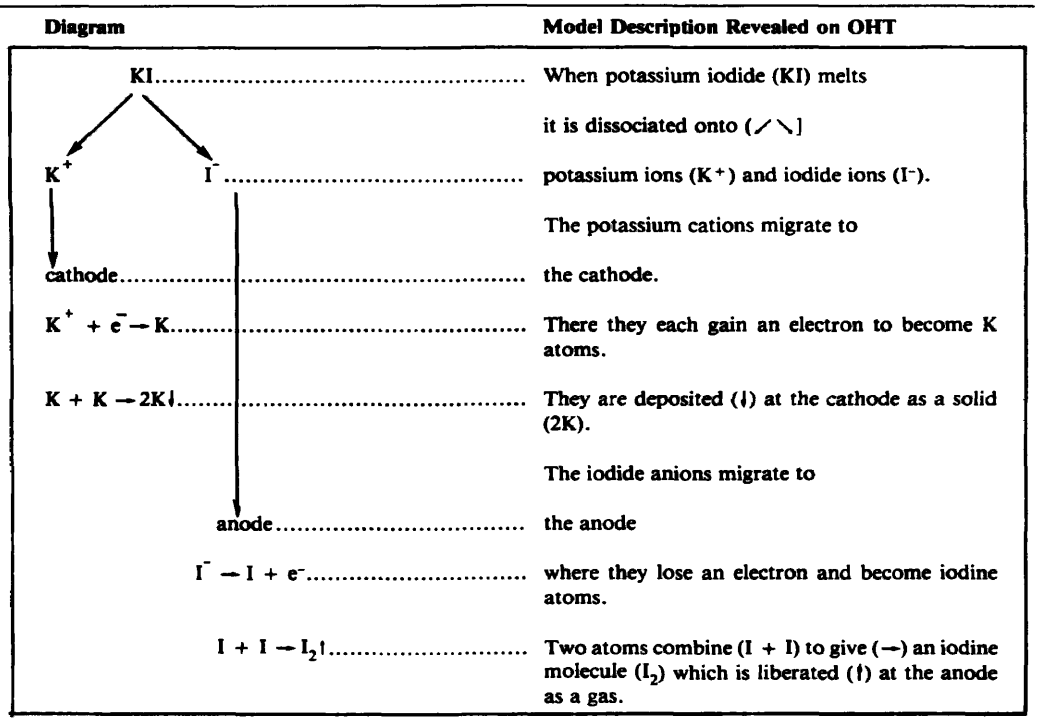


FIGURE 20

(iii) When the model description was fully revealed, an overlay containing key words was removed, leaving gaps in the text, and the students read the text aloud supplying the missing words.

Model Description (with Overlay Removed)

When potassium _____ melts, it is _____ into potassium ions and _____ ions. The potassium _____ migrate to the _____. There they each _____ an electron to become potassium atoms. They are _____ at the cathode as a solid. The iodide anions _____ to the _____ where they _____ an electron and become _____ atoms. Two atoms _____ to give an iodine _____ which is _____ at the anode as a _____.

FIGURE 21

2.4.4. Further practice

(i) Each student was handed a set of word cards which they had to put in the right order to form the following sentence:

The/positively charged/hydrogen/cations/migrate/to the/cathode/ where/they each/gain/an electron/to become/hydrogen atoms.

The results were checked on an OHT. Any syntactical problems that occurred, were dealt with.

(ii) Students were divided into pairs. An OHT with the following information was projected:

Electrolyte	at the Cathode	at the Anode
NaCl	i. $H^+ + e^- \rightarrow H$	i. $Cl^- \rightarrow Cl + e^-$
(conc. solution)	ii. $H + H \rightarrow H_2\uparrow$	ii. $Cl + Cl \rightarrow Cl_2\uparrow$

Students verbalized the above chemical equations to each other.

2.4.5. Production

Students were divided into three groups. Each group was given the chemical symbol of an electrolyte:

group 1: KBr
group 2: $CuCl_2$
group 3: $FeFl_2$

Each group was instructed to:

– write chemical equations of the electrolysis of given electrolyes;
– check their equations with the teacher;
– practise verbalizing the equations;
– choose one member to dictate the equations to the rest of the class;
– have the other members of the group check that the equations had been written down accurately.

2.5. Follow-up lesson

Students described the electrolysis of ferrous sulphate in concentrated solution orally. An essay plan was discussed leading to a written account of the same subject, including equations where appropriate.

References

1. *Cf. ELC Handbook No. 1: General Principles*, p.25.
2. *General Principles*, p.17.
3. *Task Based Learning*, p.23.

Talking for specific purposes

Anne Chirnside

Introduction

Most work in the teaching of English for academic purposes has concentrated on the development of the essential study skills – listening, reading and writing. This chapter is concerned with the development of *oral fluency* within a topic-prioritized servicing course, i.e. an English course which runs concurrently with discipline studies and in which the linguistic content is determined by topic.

To date, pedagogic models for the development of oral fluency have been based on linguistically prioritized syllabuses and are therefore inappropriate in a situation where a sizeable amount of subject information has to be provided, and where students' motivation is powerfully and exclusively instrumental, resulting in resistance to and sabotage of overtly linguistic activities. Their interest is in the information content.

The following observations are based on an English course for second year Nursing students at King Abdulaziz University. These students have already completed the first year core curriculum in the College of Medicine and Allied Sciences, which includes a 400 hour English course. The Nursing students, with a few exceptions, did not achieve the final grades necessary for entry to second year Medicine.

The first year English course is study-skills based and concentrates heavily on reading and listening skills. The two second year continuation courses, for Nursing students and for Medical students, therefore assume an adequate level of reading and listening proficiency, and focus on oral skills. A major objective common to both courses is:

to enable students to give oral presentations of a factual nature.

The course for Medical students approaches this objective through a series of training seminars. Students are given topic titles which they research and prepare in their own time. They then give the presentations to their peers and tutors, and this is followed by evaluation and advice. The students are learning by doing, and the time they spend on preparation and presentation is substantial in comparison with the time spent with the teacher in feedback sessions. The success of this

approach lies in the fact that the students' level of ability is sufficient to allow them to progress independently.

The same approach was tried with the Nursing students but it proved unsuitable. Although they were competent enough in their handling of the specific presentation skills, such as using discourse indicators and maintaining audience contact, their lack of core fluency caused communication breakdown. By core fluency I mean the ability to compose comprehensible utterances by manipulating such linguistic micro skills as subject-verb concord, tense harmony, postmodification, clause linkage and basic intonation features – mainly rising tone with non-final clauses and falling tone with final clauses. I also include here control over a body of technical and sub-technical lexis which should be assumed from the first year but which, in the case of these students, is less than complete.

Clearly, then, a different approach was required. Intermediate stages aimed at improving students' level of core fluency were needed before they could be expected to attempt presentations. This chapter describes how we teach these intermediate stages and how the work done in the intermediate units feeds into presentation units to form unified modules. Illustrations are taken from two intermediate units of the course, on the topics *Breast Cancer* and *Nutrition* respectively, and the presentation unit on the third topic *Diabetes Mellitus*, which completes this module.

1. The intermediate unit

The pedagogic model which we apply in teaching the intermediate stages is shown in Figure 22. It represents not one lesson but a block of lessons on one topic, and may take up to five hours to complete.

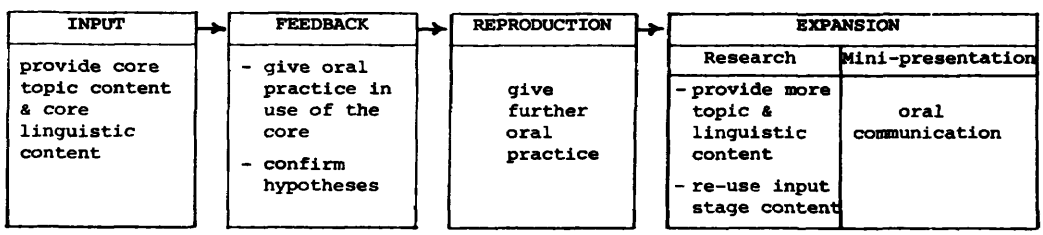


FIGURE 22 *The stages of an intermediate unit*

Although its overall aim is oral work, a substantial amount of reading and/or listening is required to provide topic content for the oral work. In this way it is an integrated approach.

1.1. The input stage

The series of lessons begins with the input stage. Here the topic is introduced. A short preamble in the form of *What do you know about x?* may take place so that students may bring any existing knowledge to bear on the subject concerned, but the major part of this stage is receptive – the topic content and its related linguistic content is presented through a reading, a video-viewing or a listening.

If a video or a listening is employed, pauseplay techniques may be used, i.e. the teacher pauses the tape at frequent intervals and may ask a comprehension question, ask for a straight repetition, for prediction or for reformulation. If the input is in the form of a reading the students are usually asked to answer a set of open-ended questions in writing. The objective of these questions is to direct the students' attention to those sections of the text which contain linguistic features, both formal and lexical, judged to be necessary for the topic concerned. However, it is also important to prevent mindless lifting from the text and so the answers usually require some processing in the form of synthesis, selection or reformulation.

Because the primary aim here is to develop oral skills, the level of listening or reading text used is higher than the level of students' productive abilities but is still within their receptive abilities.

It should be clear from what has been said that in this stage the students are interacting mainly with the text and with the teacher. If video or audio pauseplay techniques are used the teacher's role is overtly directive, though students can and do take the initiative, especially if they are very interested in the subject matter. If a reading is used, the teacher is available to give assistance if required and she checks that the content of the answers is more or less correct in order to prevent the feedback session from developing into a teacher-assisted re-read of the text, which only a few students may require.

In traditional pedagogic models the "presentation" stage is where students first encounter target forms. In this respect the input stage of this model is similar, but in other respects it is very different. Firstly, the students believe that they are seeking information, as indeed they are. This use of text as an information source makes the input stage highly communicative. Secondly, linguistic models are not presented by the teacher, nor indeed will a rigid selection of models have been made for the students. Obviously the teacher will have certain linguistic aims in mind, but the students have the opportunity to fill the gaps in their own linguistic knowledge and in this way they have more control over what is to be learned. The input stage is also very different from the traditional presentation stage in the much greater size of text used.

It is worth noting why, on this course, the use of reading texts as a source of models for oral production is justified. The nature of the type of discourse we want the students to produce is very similar to the written form. It is factual, mainly objective, usually non-evaluative and never attitudinal.

1.2. The feedback stage

For the *feedback* stage more than any other it is vital that the teacher has control over the topic content and is not text-dependent.

If the input is an audio or a video tape, the feedback session may take the form of oral cues or questions to produce a student recap of the salient features. This cannot be done effectively if the teacher is not in command of the information content, because she will not possess the flexibility which is essential to assess the content correctness of student utterances, to check any suspect comprehension by asking appropriate questions, and to modify cues or questions following on from student responses in order to secure subsequent responses containing particular linguistic items.

The feedback to a tape can also be done by providing written cues or questions and requiring written responses. This is desirable because it allows all students time to think and also because the written word usually has a longer lasting effect on the memory. These written responses have to be checked, and this forms the basis of the feedback session. Similarly, if the input was a reading, the written answers to questions on the text have to be checked.

In these two cases where the feedback session is centred on the checking of written responses there is a danger that the students will only be required to read aloud their answers which are then judged right or wrong for information content. However, since it is normally the case that the content is mainly correct, at this stage the teacher can focus on linguistic errors. This correction of errors produces in itself a lot of oral work, provided the teacher involves the whole class by encouraging peer correction, by asking different students for repetitions of a corrected response, or by asking for alternative ways of expressing things. It should be apparent that control over the topic content is also vital here in order to manipulate student responses and maximise oral production.

The correction of linguistic errors also plays a part in the next stage, and before moving on, it is necessary to state our position with regard to accuracy versus fluency. I said at the beginning of this paper that we were concerned with oral fluency. To be fluent requires a certain level of accuracy – certain types of error, or too many errors, cause communi-

cation breakdown. We aim for a broad level of accuracy, attempting to eliminate the serious errors. Therefore in the feedback and reproduction stages correction is rigorous, but selective. Thus, although we cannot expect complete accuracy at the expansion stage, we should not get communication breakdown.

1.3. The reproduction stage

The *reproduction* stage is not obligatory as it is largely further practice of what has been done at the feedback stage. If the teacher feels satisfied with the students' performance at the earlier stage, she may decide to limit the time spent on this stage, or even to move straight into the next.

By the end of the feedback stage the students as well as the teacher are fairly familiar with the core topic content. Oral practice with the minimum of verbal props can now take place. The stimulus for the oral production depends on the nature of the information content. Visual stimuli are preferable and diagrams, flowcharts, tables and photos are used as much as possible. When visual stimuli are not appropriate, a set of notes or again cues can be used.

This stage cannot be said to be communicative in the sense that little new information is being conveyed. However, it is fully contextualized and therefore meaningful. Although I said earlier that students lack interest in overtly linguistic exercises, they do tend to respond well at this stage to appeals to "get the English right", and so correction here can be fairly rigorous.

Most importantly, the lessons should be planned so that there is a time lapse between the feedback and the reproduction sessions, otherwise the teacher runs the gauntlet of student boredom since these two sessions focus on the same body of information content.

1.4. The expansion stage

The *expansion* stage builds on both the information and the linguistic content previously input, and widens them. It is at this stage that the students must be engaged in real oral communication in the sense that what they are talking about is not already known to the rest of the group. The emphasis here is very much on successful communication, not on how the information is conveyed.

The activity in this stage is in two phases: a *research* phase and a *mini-presentation* phase.

In the research phase, pairs or groups of students are each given a

different audio, video or reading source which provides more detail or describes other aspects of the core information content. Guided by a table for completion or a set of cues or questions, they extract information to present to the other students. Again the need for selection, synthesis and reformulation deters lifting from the text, but this remains a danger and the teacher must circulate during the research phase to make sure that students are not copying large chunks of text which they will later read out. (Ironically, if this does happen the student listeners are unlikely to understand what is said and the resultant communication breakdown itself causes a substantial amount of oral production.)

In the mini-presentation phase, the students present the information they have prepared. The rest of the group have some task to perform as they listen, usually to complete the same sheet that the presenting group used during the research phase. This need to do something with the information means that it is immediately apparent whether communication is successful or not. The students who are giving the presentations are strenuously encouraged to do so from notes rather than full scripts in order to avoid the temptation to read aloud verbatim.

Teacher interference at this stage is minimal but it is useful to note down any serious errors in order to mention them in individual feedback or to highlight them in later teaching units.

The difference between what is expected in the mini-presentations of the expansion stage and a full presentation is mainly quantitative. At the expansion stage the students are each expected to talk for about three minutes and the text from which they will have extracted their information will be short – in the case of a reading text it may be no longer than one page. In a full presentation, which is the ultimate objective, they will be expected to talk for about ten minutes and the research will be more substantial: eg reading texts will run to several pages, usually from several sources.

1.5. Two practical examples

I have described each of the stages in the method we use for developing the kind of oral fluency which is similar in form to its written equivalent because of the nature of the discourse with which we are concerned. For a fuller understanding it is necessary to see how this method works in practice. Figure 23 provides an analysis of the activities and topic content of two intermediate units from the English course for second year Nursing students.

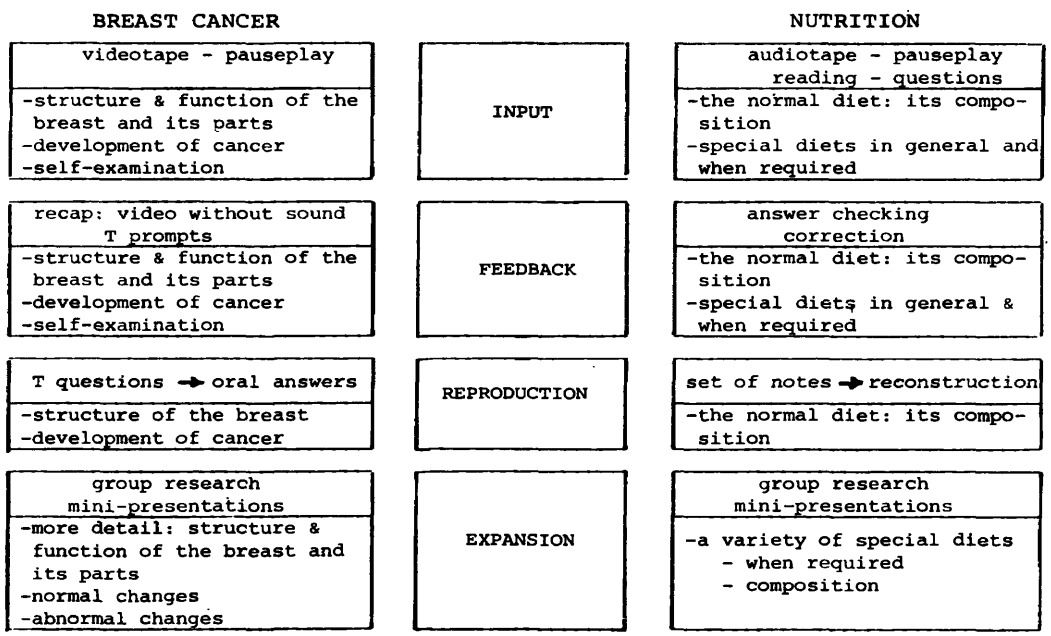


FIGURE 23 *The stages in two intermediate units from the nurses' course*

2. The presentation unit

It will be remembered that the function of the intermediate stages I have described is to improve students' level of core fluency and so enable them to cope with full presentations. Practically, this is done by having two or three intermediate units feeding into one presentation unit. It is obviously essential that the intermediate units provide valid input to the presentation unit. By valid input is meant concepts and the linguistic items necessary to express them: those found in the presentation unit should have appeared in the intermediate units. But this does not mean that the topics themselves should be similar. On the contrary they should be different in order to necessitate transfer to a new topic of what the students have learned by working on others. This is best explained by illustration. Figure 24 shows how the two intermediate units *Breast Cancer* and *Nutrition* feed into the presentation unit *Diabetes Mellitus*. (Associated lexical items of a sub-technical nature which also feed into the presentation unit have been omitted due to space restrictions, as have those aspects of the intermediate units which do not feed into the presentation unit.)

The procedure followed in the presentation units is similar to that used in the parallel course which was described at the beginning of this chapter in that the students research and prepare their presentations independently. By carefully matching intermediate units to presenta-

tion units in the manner described we hope to equip students with the necessary core fluency to undertake successfully this new but related task.

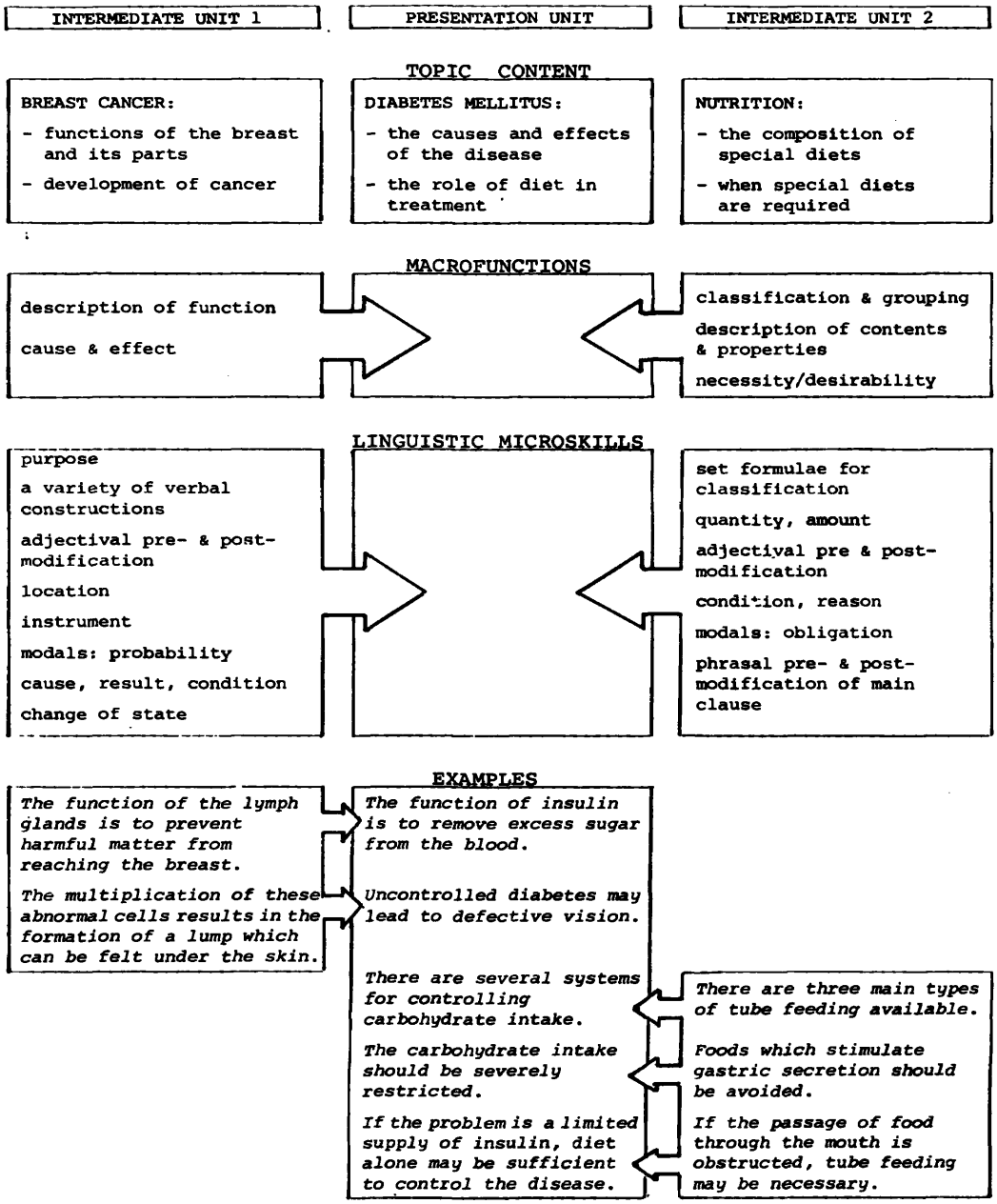


FIGURE 24 *Synthesis in a presentation unit of skills practised in two intermediate units*

Writing practice: from sentence to essay level

David Hill

The students concerned here are Arab Medical students attending the first year Medics course at the ELC.

It has been noted that many students who perform satisfactorily at the simple sentence level (i.e. sentences of one or two clauses containing one main item of factual content), show a lack of competence when faced with a task of "free writing" at the level of paragraph and essay. Even students who show a high degree of understanding in complex reading tasks and have adequate fluency in spoken English suffer from the same problem.

Two common faults in the student's writing seem to come under the main headings of **cohesion** and **coherence** (as defined by Widdowson[1]).

Firstly cohesion: Students have difficulty in linking separate items of factual content with the appropriate "markers". They are uncertain in their use of joiners, pronoun references, ellipsis etc. The result is either a series of simple sentences with unnecessary repetition of items:

> *The food enters the mouth. Then the food is chewed by the teeth. Then the food passes to the stomach. In the stomach . . .*

or an intermediate sentence linked by a series of *and*s. This problem is in part cultural as this type of sentence seems to be both common and permissible in Arabic.

Secondly, the problem of coherence: In academic essays, especially in the sciences, information is arranged in a logical sequence to describe processes, spatial arrangement or cause and effect, or to carry out other functions such as prediction or classification. The question of appropriate register also occurs, involving the correct level of formality required for academic writing. The students show very little appreciation of the principles of paragraphs and essays structuring and consequently tend to present information in a misleading and illogical order with serious omissions. They are also very slow in the organization of their writing.

The type of exercise the students are familiar with generally involves a short response to specific questions. Often these are simple gap-filling exercises or single sentence responses. This type of exercise gives strong guidelines to help the student form the complete answer. Asking students who are used to this type of task to produce essays without further guidance in unrealistic. It is too easy to assume that a student producing good sentences at this level will simply make the jump to producing paragraphs and essays. The necessary skills do not seem to be automatically established: they need specific guidance.

A series of exercises was devised to provide the necessary bridging skills and has proved useful to many of the students concerned. The exercises were loosely based on an idea by Chambers[2] with suitable additions and modifications for specific teaching conditions in the ELC.

Material

The material for exercises up to type three consists of simple "core" sentences. These can be adapted from course text books. A suitable paragraph is chosen and broken down into single items of factual content (or single propositions in Widdowson's definition). These sentences are used in different ways according to the level of exercise. An example of breakdown is given later. Defining a "single item" is really the choice of the teacher and depends on the level of task he wants the students to perform. For example:

Lymph is a straw-coloured, isotonic fluid derived from blood plasma.

This can be broken down to either two or three sentences:

(a) Lymph is a straw-coloured, isotonic fluid.
(b) Lymph is derived from blood plasma.

or

(a) Lymph is a straw-coloured fluid.
(b) Lymph is an isotonic fluid.
(c) Lymph is derived from blood plasma.

The second breakdown may be unnecessary unless the teacher wishes to practise adjective ordering or some similar skill.

Exercises

The exercises are graded from sentence to paragraph to essay level. Each grade contains elements of the previous exercises repeating the simpler tasks within the more complex.

Type one: joining sentences

Task

This first type of exercise involves presenting the students with pairs of core sentences which can be joined. The first sentences can be done as

examples on the board. The white-board is a more flexible medium for this than, for example, the OHP as suggestions can be elicited from the students, written on the board, and discarded if unsuitable. Some examples of joined sentences are given later.

After the worked examples the students are given sentences to join themselves. Pairwork was found particularly useful for this exercise. After completing each pair of sentences, the students are asked for their answers. Several can be written on the board and discussed.

Teaching points

The following points cropped up fairly frequently:
- There may be several equally correct ways of joining sentences.
- Joining sentences usually reduces the total number of words. A common mistake by students is to join sentences with a high degree of redundancy:

**These reactions are cyclical reactions and they were worked out by Sir Hans Krebs.*

- Verb forms may be used instead of joiners. For example:

Sugars are broken down and form CO_2 and H_2O.
Sugars are broken down to form CO_2 and H_2O.
Sugars are broken down forming CO_2 and H_2O.

A common mistake is to use the verb form and a joiner:

**Sugars are broken down and forming CO_2 and H_2O.*

- Pronoun reference changes depending whether there is one sentence or two:

Two sentences:

Thrombin causes the clotting of blood.
This/It occurs on exposure to air.

One sentence:

Thrombin causes the clotting of blood, which occurs on exposure to air.

A common mistake is again redundancy:

**Thrombin causes the clotting of blood which it occurs . . .*

Individual teachers will find different points and mistakes depending

on the group of students. When the students can cope with this exercise, the task can be extended to the joining of more than two sentences.

Examples (based on Roberts[3], p. 106):

(a) These reactions are cyclical.
(b) These reactions are known as the Krebs' citric acid cycle.
(c) These reactions were worked out by Sir Hans Krebs.

(a) and (b) are joined to give:

These cyclical reactions are known as the Krebs' citric acid cycle.
(a) and (b) are then joined to c to give:

These cyclical reactions, which were worked out by Sir Hans Krebs, are known as the Krebs' citric acid cycle.

(a) This energy does not come from the transfer of hydrogen atoms.
(b) This energy comes from two of the steps of glycolysis.
(c) These steps are directly coupled with A.T.P. synthesis.

(a), (b) and (c) are joined to form:

This energy does not come from the transfer of hydrogen atoms, but from two of the steps of glycolysis which are directly coupled with A.T.P. synthesis.

Type two: joining sentences to form paragraphs

Task

In this exercise a complete paragraph of core sentences is presented to the students on a printed sheet in the correct order. The task is similar to a type one exercise, the difference being that the students must choose for themselves which sentences are to be joined.

This stage reinforces the tasks done previously and also deals with the "interminable sentence" problem that tends to crop up at this point (. . . *and* . . . *and* . . . *and* . . . ad nauseam).

Teaching points

Some common points that arise at this stage:

– Usually not more than three sentences are joined.
– The same joiner is rarely used more than twice.
– A variety of joiners makes a more interesting sentence.
– *And* is used as a joiner for clauses but may also be used as a joiner of

associated words (e.g. *stand and clamp*) or lists (*a,b,c,d,e, and f*). If it is used in these two ways in a sentence then more than two *and*s may be used without making the sentence cumbersome.

Example (Roberts, p. 207: *The Formation of Cholesterol)*

Original passage:
This is a lipid-like substance, some of which is required as an important constituent of cell membranes, particularly of nerve cells. Excess cholesterol is secreted in the bile. If there is a considerable surplus, it may precipitate in the gall bladder or bile duct as gall stones. These sometimes block the bile duct, leading to obstructive jaundice in which the skin acquires a characteristic yellow appearance due to retention of bilirubin in the blood. The amount of cholesterol and other lipids in the blood is largely determined by dietary intake in conjunction with the activities of the liver. If there is a considerable excess in the blood, some of it may be deposited in the walls of certain arteries, obstructing the smooth passage of blood and often leading eventually to an intravascular clot. If this occurs in the coronary vessels of the heart, the result is a coronary thrombosis or "heart attack". The elimination of excess cholesterol is thus an important function of the liver.

This passage was reduced to the following 13 core sentences:

Cholesterol is an important substance.
Cholesterol is needed for certain cell membranes, especially nerves.
Cholesterol is a lipid-like substance.
Excess cholesterol is excreted by the liver in the bile.
Too much cholesterol can cause gall stones.
Gall stones cause obstructive jaundice.
Jaundice is due to retention of bilirubin in the blood.
Jaundice causes a yellow colouration in the skin.
The amount of cholesterol in the blood is related to diet.
Too much cholesterol in the blood causes deposits on the artery walls.
Deposits can cause intravascular clots.
A clot in the coronary vessels can cause a coronary thrombosis or heart attack.
Therefore the elimination of excess cholesterol is an important liver function.

Type three: organizing and joining sentences to form paragraphs

Materials

In this type of exercise a paragraph of "core sentences" is selected and

separated into single sentences. A simple method of doing this is to type out the sentences, each on a single line, and triple space the lines. Several photocopies are made and then cut up into the individual sentences on a paper-guillotine.

Task

The students are given an unordered set of sentences on paper strips which can be arranged to form a paragraph. Having placed them in the appropriate order they then decide which are to be joined into more complex sentences. The students then write out the completed paragraph. This task is especially suited for groupwork. The students benefit from the discussion on the ordering task and often correct each other's mistakes. The teacher can act as final arbiter, either reinforcing correct ordering or suggesting reasons for incorrect ordering.

Teaching points

Rules for paragraph ordering and construction are loose but some useful guidelines can be given. Although the idea of allowing the students to discover the rules for themselves has appeal, in practice this does not seem a feasible approach. It is too time-consuming, the rules are not really obvious enough to be easily deduced and student motivation drops considerably as they feel they are floundering in the dark. It is therefore helpful to provide the students with some of the following information:

- The first sentence usually introduces the topic but does not contain the main information. It is a general statement.
- The second sentence usually gives the main information and is also a general statement.
- This is followed by specific, detailed or explanatory sentences, in the same order as outlined by the second sentence.
- Where paragraphs are concerned with processes, the sentences should follow the same order as the process.
- The last sentence or sentences are often a summary.
- Paragraphs rarely have more than 10 sentences.

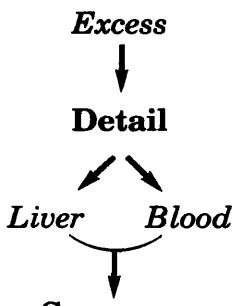
Example:
(Source: see example above for type two ordering – *Cholesterol*)

Introductory sentence – *Cholesterol is an important lipid-like substance.*

↓

Information overview – *Excess cholesterol . . .*

↓



– *Excess in liver (detailed sentence)*

– *Excess in blood (detailed sentence)*

– *Therefore the elimination of cholesterol is an important function.*

Type four: planning and writing a paragraph

Materials

Flow diagrams or tables of processes, reactions etc, obtained from course textbooks (e.g. *Ornithine Cycle* – Roberts, p. 20, *Digestion* – Roberts, p. 33).

Task

The students are required to produce a paragraph describing the information in the diagram. The student is thus using the skills built up in Exercises Types 1, 2 and 3 but has to form his own sentences.

Teaching points

Marking and correction of mistakes is very important at this stage. A certain amount of regression to earlier mistakes is common, perhaps due to the removal of the sentence props with consequent loss of confidence. This should be dealt with quickly to prevent the students' motivation slipping. A common mistake is for the students to commence writing complex sentences without having planned the paragraph first. If the students can be shown that a simple preparatory paragraph in note form gives them the core sentences, then the task once more resembles something familiar.

Type five: planning and writing an essay

Task

The task consists of an essay question which the students answer by referring to suitable text books. The question should be devised so that it is not possible to produce an essay by merely copying out large chunks from the book. A question requiring some sort of deductive answer is therefore required.

Teaching points

This task utilizes the skills developed by the previous exercises in a free essay situation. The extra skills needed are of an organizational nature, and the most important part is the planning. The student should make a plan in note form and discuss it with the teacher before writing the essay. The notes generally should consist of a series of headings, each heading representing a paragraph. For the first essay, the planning can be done as a class discussion and the note-form essay built up on the board. Students can advance to planning the essay on their own according to their ability and progress. Again, guidelines to students can only be general, but some concept of introduction, structured information and summary is useful. Each essay will have different constraints and must be discussed separately.

Course considerations

Materials

Materials are obtained from students' course textbooks. Suitable paragraphs for breakdown, suitable flow diagrams and summary tables can be extracted relatively easily. Where groupwork is involved (as in the sentence ordering exercise) only a small number of sets are needed and can be produced on a photocopier at fairly short notice.

Choice of topic

Choosing topics currently being studied by the students in faculty courses improves interest and motivation, especially if complex or difficult items are picked. It is important in simplifying the sentences not to simplify the factual content and go below the students' level, or motivation will drop considerably.

Effectiveness

The effectiveness of this type of course is very dependent on student motivation. In a particular group of students it was found that several poorly motivated students appeared to make no progress at all, whilst others made very clear improvements in their ability to present information precisely and logically, and their speed for a given length of writing increased dramatically.

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Reading in English: some early problems faced by Arabic-speakers

Janet King

In this chapter I intend to look at the following questions:

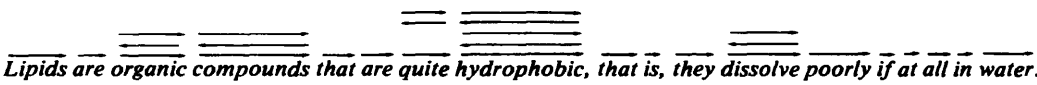
What does Latin script look like to an Arabic script user?
What particular problems may an Arabic speaker have in coping with Latin script?
What reading habits has the student developed in his L_1?
In what ways would these habits be helpful or unhelpful if transferred to the L_2?

First, the obvious differences between the two scripts. Arabic runs from right to left. In both printed and written script some letters within the word will always be joined. This joining is not a matter of individual style, but is determined by the position and nature of the letters which make up the word. Each letter has three forms according to whether its position in the word is initial, medial or terminal. The end of a word is marked by the terminal form of the letter and (in printed text, but not always in handwritten script) a space. There are no capital letters. Several letters in Arabic script have the same form (ـب) and are differentiated by the position and number of dots (ث ت ن ي ب).

Latin script runs from left to right. Apart from a couple of fast disappearing archaic forms (œ and æ) letters in printed text are separate, not joined. Joining does appear in handwritten text, but it is a matter of style. Each letter has two forms, a capital and a lower case version. The capital form may indicate the beginning of a sentence or may have a semantic role (for example to indicate a proper name). The end of a word is marked always and only by a space. Several Latin letters have the same basic form and are differentiated by the position, length and direction of an adjoining line (a b d g o p q).

The first difference between the two scripts, the direction in which they are read, means that, as with a left handed person learning to eat with the right hand, students learning to read the new script have to exercise control over a process which is automatic in their first language. It is common to see even students who have learned English for several years using a pen as a guide and pausing at every word, as if without such a guide the eye would automatically slip back to the other

direction. If a word is difficult, the student will continue to scan it and maybe the word before until the meaning is clear, without casting his eye ahead on the line or page for additional clues to help him decipher its meaning. His eye movements will follow this sort of pattern:



Using a guide such as a pen or a finger is also a way of orienting oneself in a very foreign piece of text. Familiar words are not immediately apparent as they are for someone completely at home with the script, and if the student loses his place in the text, he may have to start again from the beginning.

One way in which written text is more accessible than speech for all learners is in the control that can be exercised by the reader over the speed with which the input is processed. The student is not rushed to understand one word before the next appears. A learner coping with a written text in a familiar script, however, has further advantages. Words may be easily (although not necessarily accurately) decoded from written to spoken form by using the phonetic rules of the learner's native language. In addition, for speakers of European languages, a large proportion of the words will look familiar. *La télévision* is immediately recognizable, as is *die Biochemie*. For readers of a more distantly related language that uses a non-Latin script, there are no such easy prizes. The students may painfully spell out a word in the new script letter by letter only to find out that the word arrived at bears no resemblance to any word he has met before and he is therefore no nearer to understanding it.

The learner approaching a new script may thus approach a text as if it were a difficult code to be cracked – the sooner it is converted into something recognizable, the better. Hence the reliance on a word-by-word approach, where each item must be converted and understood before going on to the next. A student's page may end up with nearly as much Arabic annotation as English text. The text becomes like the M. C. Escher print *Day and Night*, which either shows black birds flying across the sun or white birds flying across the moon: the teacher sees a printed text with indecipherable annotations, where the student sees explanations of otherwise incomprehensible patterns.

More generally, any learner will think of the script and phonetic system of his own language as *real* and wish to relate the vocabulary of the new language to the familiar system. In Iran, for example, it is common practice for school students to keep word lists in three columns, the English word in Latin script, the same word trans-

literated, and the Farsi equivalent. Indeed, many Europeans learning Arabic decide "not to bother" with the Arabic script at all, but rely on a semiphonetic transcription to record items.

The difference of script is one problem but even if this is overcome there remain differences in the structure of English words or word groups.

A student can read much more fluently and easily if he is able to verbalize what he sees. When reading English this can be difficult. Firstly, unlike Arabic, English does not have a consistent phonetic system. A student may not necessarily recognize a word he has learnt verbally when he sees it written down; it is easy to mistake one word for another. Even where the system is regular some aspects of the English phonological system seem improbable, for example the initial consonant clusters "st" and "sp" and the medial "bst". So a difficult word can be perceived as a jumble of letters rather than a representation of a series of sounds. Secondly, Arabic words are seldom longer than about six letters. In comparison some composite English words must seem to go on for ever. In much the same way some German words seem endless and unpronounceable to an English speaker.

It is possible to make composite English words manageable by breaking them down into their components. This requires, among other things, an understanding of prefixes and suffixes and how they are used to convey semantic meaning. With the possible exception of the negativising (ما) prefixes and suffixes are not used in Arabic in this way. Although this is not a serious problem it is an example of different skills that have to be learnt.

Although auxiliaries are sometimes used, changes in voice, tense and person in Arabic are usually expressed by changes in the verb itself through affixes and vowel changes. Because of the English use of auxiliaries and pronouns, English may need four words to express what is one word in Arabic, for example *It has been used* (استعملت). This does not in itself present a problem but if a student is processing one word at a time he will have difficulties if the verb is then split up by other words, for example *It has often been wrongly used.*

In English the meaning of a group of words is not necessarily the same as the sum of its parts. The words *carried out* can have one of two meanings depending on the context. There is a difference between *He carried the plan out successfully* and *He carried the man out.* Here it is necessary to look at the whole sentence rather than just the words it contains.

Reading in a foreign language is difficult for all learners because of unfamiliarity with the language and the way the language is used.

What I have tried to discuss are the extra difficulties facing a student who has to deal with a completely foreign script as well. The strategies that are used to overcome the foreignness of a text: word-by-word reading, instant item translation and spelling out are employed by all learners faced with a text containing too high a proportion of unfamiliar words. In the appendix I have listed a number of possible exercises that can help lead to a more fluent reading of a text by making the items more familiar and encouraging the student to see words as parts of a whole rather than as individual items.

Appendix: some reading fluency exercises

1. Encouraging word recognition.

1.1 A timed multiple choice exercise: from a series of similar words the student has to underline the one that is identical to a given word.

e.g. *collection: connection conduction collection conception*

This is an individualized exercise where the student is encouraged to improve his skill by increasing the number of questions answered in a given time.

1.2 A familiar word is projected for a very short time: a second or less. The students have to reproduce the word either orally or in written form. As the students progress the projection time can be reduced.
(Unless there is an unlimited supply of OHP bulbs the best method would be to obscure the beam from the mirror at the top of the projector with a piece of card, removing the card for the required interval. Alternatively a slide projector could be used but in this case a longer time interval would probably be necessary to allow the students' eyes to adjust to the increased brightness).

1.3 A familiar word with the bottom half obscured is projected. The students guess what the word is.

These last two exercises are class exercises which can be used as short informal contests.

2. Learning to deal with the unfamiliar forms of known words (e.g. with prefixes/suffixes).

The student is given a table with the root word on one side and five similar words all with the same prefix on the other side.

e.g. *possible* *impression*
important
impossible
improbable
impolite

and has to match the one appropriate word with its root. This exercise should be timed.

3. Making the text seem more accesible.
   3.1 By reviewing or teaching the key words. The students are told the subject of the text and they predict the (type of) information it will contain, or the teacher presents the main points of the text using key words.
   3.2 By glossing any words that hinder the understanding of the text, cannot be guessed from context and are of such low frequency that it is not necessary for the student to know them.
   Obviously such words would not occur often, or if they do there is something wrong with the text selection. In this way the student's attention is diverted away from the elements he does not know and so these do not hinder his reading fluency.

4. Encouraging reading phrase by phrase rather than word by word.
   4.1 Marking where sentences split up into sense groups: discussion.
   4.2 The ordering of jumbled words into sentences.
   4.3 Marking phrasal verbs and other meaning groups.
   4.4 Prediction exercises: students discuss what word(s) should come next in an incomplete sentence.

Section 3

What should we revise?

Judith Wilson

What should we revise? is often the most pressing question asked by students at the end of a course. It is a difficult question to answer when the course has aimed to develop skills rather than to impart a body of information. We may well feel that if the students have not developed these skills by the end of the course it is unlikely that a weekend's revision will help them. And yet the question is a valid one because what the students are in fact asking is what they are supposed to have learned from the course, which they assume will indicate what they will be expected to do in their examination.

The course in question is a substantial one-year ESP course for first year medical students at King Abdulaziz University. It has been taught every year since its inception in 1975, on both men's and women's campuses. Students now number annually around 250, and up to 25 language teachers are directly involved. Like most courses in the English Language Centre it is communicative and task-based, and its objectives are intimately related to the English-medium courses which occupy the rest of the student timetable. Its design and methodology have developed steadily and, after initial teething problems, along consistent lines.

It is an interesting fact, however, that while the teaching resources currently in use include some materials quite recognizably derived from those produced in the early years of the course, the test bank has rarely provided anything from the past that could be built on or adapted for present use. Until recently, nearly all of the tests and examinations used for mid-year and final assessment have been purpose-written and seldom re-used. We have not found it easy to design valid and reliable tests which reflect the nature of the course, which can be conveniently administered with the resources and time available, and which in addition satisfy the requirements of all interested parties – students, teachers, course designers, testing specialists and the client college.

We suspect that our experience here is not unusual, and that other institutions may also have found testing one of the most difficult areas in ESP course development. This chapter discusses some of the alternatives we have considered for testing progress and achievement on our English course for first year medical students, and describes the pedagogic and pragmatic decisions that lie behind the present design of these tests.

Do we need an examination at all?

Running concurrently with the science programme it is servicing, the English course has a highly visible purpose. The objectives of the course are expressed in terms of the five main environments of the first year medical programme: the lecture, the laboratory, the tutorial, the library and the written examination. The science content on which all the material is based is taken directly from the syllabuses of the three main subjects that make up the first year core curriculum: Physics, Chemistry and Biology.

The students, well aware of the reason for their concurrent English studies, are motivated instrumentally. The English course is seen, as indeed it is meant to be, as an aid to progress in medical studies rather than as an end in itself. When facing the prospect of a final examination, astute students might therefore ask why they need one at all. By the time they have finished their English course they have also finished their Physics, Chemistry and Biology courses and are about to be examined in these subjects by the College of Medicine. If the students are successful in these examinations then their English must surely have been good enough for them to cope with their science lectures, practicals, reading assignments and so on. They have satisfied the requirements of the English course, so why do they need another examination?

The idea of doing away with the examination altogether is attractive not only to students. Teachers, course designers and testing specialists are all too aware of the problems involved in assessing students' achievement of the communicative aims of the course by their performance in a formal examination, and would welcome viable alternatives.

In fact the basis already exists for an alternative policy. During the year a substantial amount of information about each student is recorded through continuous assessment by tutors, amounting to a profile which the college might be persuaded to accept instead of an examination mark. After all, what the college really needs to know is whether the student has sufficient English to cope with English-medium studies in the years ahead. A profile built up over the course

showing how the student has performed in a wide variety of communicative situations, making use of all available resources and not adversely affected by the stresses and constraints of an examination, might be a more reliable indicator of this ability to cope than a formal examination.

However we must bear in mind that the information we provide to the college, from whatever source, has important implications for the students. On the basis of their achievement in Physics, Chemistry, Biology and English (each weighted at 25%) it is decided whether they will be given one of the limited number of places in second year medicine and work towards qualification as doctors, whether they will instead follow shorter courses leading towards qualifications in nursing or medical technology, or whether they must repeat the year or withdraw from the college altogether. It is important for all concerned that the information on which these decisions are based should not only *be* objective but also be *seen* to be objective.

Therefore, while continuous assessment based on classroom performance and informal tests provides valuable information on student progress and achievement, we would not want at present to replace formal examinations altogether. These are still needed for cross-validation and to provide a more overtly objective measure of progress and achievement.

What about banding?

The type of examination that our students are most familiar with is the test of discrete items, typically a set of multiple choice questions. This type of examination is popular with college staff as well as with students because it is easy to administer and mark, can include a wide range of items from different parts of the course, and can provide objective information allowing the students to be graded in rank order. Since discrete item English grammar tests are familiar to the students from secondary school we find it appropriate to follow suit in testing for initial selection, but after that the place of such tests in English assessment is minimal since in no way do they reflect the nature of the objectives or content of this or any other ELC course.

Central to assessment policy in the ELC and indeed to our whole theory of task-based course design is the *banding system*. This system aims to provide a scale covering the whole spectrum of language ability from that of an expert native speaker, placed at band 9, to a beginner at band 1. The description of band levels forms a set of criteria according to which the tasks that make up the course can be graded and by which the performance of individual students can be assessed. The stage that a student has reached on any particular course can therefore be

objectively described in terms of his behaviour – that is, in terms of the tasks that he can actually perform.

Thus, on the course for first year medical students most entrants can attempt band 3 tasks but do not have the study skills or the knowledge of scientific lexis and the associated language items to cope with tasks much above this band level. By the end of the course they should be able to do band 6 tasks related to their medical studies. For reading and writing these target tasks are:

- to make confident use of a specified first year university textbook with limited guidance; to locate, extract and transfer information at the chapter level;
- to write connected paragraphs on scientific structures, functions and processes, from given input, with limited guidance.

For some years a banding system of this sort has been used on the course for continuous assessment, and it has been found to be a useful tool for describing student progress. In theory we should be able to use the same system as our basis for examination design, since the target band descriptions are closely related to the course objectives. Then we should be in a position to provide the College of Medicine with a final band for each student. When referred to a set of clearly defined criteria this band would state what the student could or could not do at the end of the course. The whole assessment procedure would thus be based on the band descriptions.

In fact this is the case on some ELC courses, but in the course for first year medical students the principle has not been carried through to examination design. We find that it is precisely when we attempt to use the bands as the sole basis for examination design that their shortcomings become apparent. In continuous assessment, where a measure of tutor intuition in the interpretation of band descriptions is acceptable, the system seems to work well. But when we attempt to use our existing band descriptions to define and assess examination tasks it becomes evident that they are too inexplicit to provide all the information we need. For example, we have not yet worked out the relationship between bands and tasks in terms of input (the starting point for the task) and output (what the student is required to produce). Nor have we yet worked out a formula for describing tasks appropriate to different band levels in terms of their interrelated science content, linguistic content and study skills. Yet some description of this type is necessary to allow us to pin down the elusive point at which we say that the task has been completed satisfactorily and communication achieved.

In addition, the College of Medicine requires all final student grades in

the form of a percentage mark. It is of course possible to convert a band into a percentage mark, but in doing so most of the point of the banding system is lost. It might, instead, prove possible to persuade the college to change its policy and to accept English results expressed in band levels, but we are not yet confident enough to declare that our band system will provide information about student achievement more simply and reliably than the present mark-based system.

A whole exam – or separate parts?

We therefore continue to give formal examinations, and to express the result in the form of a percentage mark. These decisions have been made chiefly in order to increase the reliability of the information we provide about student achievement. However it is still important that the examination we use should provide as accurate a reflection as possible of the design and methodology of the course.

Since teaching in the College of Medicine is almost entirely English-medium, the English course aims to develop all four skills, and wherever possible these skills are not taught separately but are integrated. This is especially true in the latter stages of the course, when teaching units integrate practice of all skills and a wide range of linguistic items in the extended treatment of major science topics. The integration of skills in relation to one science topic is therefore a key feature of the course, and it might seem that our aim should be an examination which replicates this situation as closely as possible.

An examination designed to do this might require students to apply their skills to the acquisition of new scientific knowledge. It might begin with a lecture, presented on videotape, which the students would watch for the purpose of notetaking. They might then be asked to refer to a chapter from a university textbook and extract further information on a related aspect of the topic. Finally they would write an essay summarizing some of the main points from the lecture and the reading text. The examination might also include a short oral presentation given either alone or with a small peer-group.

This type of examination would be very close to the type of activity that actually goes on in the English classroom, though it would be much curtailed in time span and topic scope. However it has remained an idea only, since what it fails to take account of are the changes that are necessary, for both pragmatic and pedagogic reasons, to adapt tasks from teaching purposes to testing purposes.

The main problem entailed in an examination like this would become apparent when a student did not succeed in producing the required output, either written, oral or both. We would then have no way of

diagnosing where the failure had occurred – at the receptive stage in the listening or reading tasks, or at the productive stage in the writing or speaking tasks. As a result we would probably end up with a very high proportion of students who had not satisfactorily completed the tasks and very speculative ideas about why. We would have scant information about how near these students had actually got to success. Nor would we learn where they, or we, might have gone awry in the course itself.

In spite of the importance placed on the integration of skills in the classroom, it has therefore been decided to test them separately. This decision allows us to take into account the relative difference in difficulty between receptive and productive handling of text. By the end of the year our students can get the gist of quite advanced scientific text when they are reading or listening. But we do not expect them to produce anything of this complexity in class, and still less in an examination. In addition, the separation of receptive and productive testing means that we can choose the type of input most appropriate to elicit evidence of writing and speaking skills. The type we prefer is minimally verbal – a diagram, a flow chart or a graph – which offers the students the opportunity to compose an appropriate text without asking them to paraphrase a model and tempting them to incur penalties by reproducing it verbatim. And finally, testing each skill in a separate section of the examination means that science content can be varied. Although again different from classroom practice, this minimises the danger that a student's confusion in one area of science could prevent him from showing what he can do in English when he is more confident of his facts.

The question which arises next is whether it is desirable or sensible to attempt to test all four skills in the final examination. Our doubts here derive from the problems encountered in the testing of oral/aural skills. In the past ingenious listening tests have been devised and used, often in spite of considerable practical obstacles such as roaring airconditioners, overcrowded rooms, poor acoustics and uncertain electricity supplies. Most of these tests were based on extended listening passages and in order to ensure that evidence of receptive ability was not dependent on students' productive skills, comprehension was tested by diagram labelling or completion, multiple choice items, or questions with short form answers. But still it seemed that the results more frequently reflected their skill at handling the output requirements than their aural comprehension.

We therefore did away with separate listening tests and instead included an interview in the final examination. We use a series of diagrams related to the science content of the English course as a basis for the interview and follow a progression from a predictable, supportive

interviewing style at the beginning of the interview to an interaction which includes elements of unpredictability and challenge. In many ways we feel that these interviews work well, and their validity is high since they allow the assessment of listening and speaking in a fairly natural, interactive situation. However, interviewing large numbers of students is very time-consuming and doubly expensive when staff work in pairs in order to increase reliability. Even so, fatigue tends to dull judgement, and for this reason the cost of this method of formally examining oral/aural skills is weighed against its benefits. It is retained as an optional examination component, but its implementation depends upon resources. When it is not included, listening, speaking and oral interaction skills are assessed by tutors on the basis of classroom performance. Our standard final examination concentrates, therefore, on reading and writing.

An exam with a future?

What we have ended up with after consideration of all these various possibilities is an examination which looks surprisingly conventional. It is a three-hour paper with separate sections for reading and writing, each with a different input based on unconnected topics. It is important that success should be neither handicapped by total unfamiliarity with the scientific context nor assured by existing scientific knowledge. Therefore the science content of the two examination tasks is related to the first year curriculum and has been covered at least partly in English lessons but not in precisely the same form.

The reading section aims to test the students' ability to locate, extract and transfer information at the chapter level. Students are therefore provided with an entire chapter photocopied from a Physics, Chemistry or Biology textbook, not the actual book used on the science course but one similar in level. The task is based on the target band description but also provides information about achievement below the target level. Students have to complete a series of exercises to show their understanding at word, sentence, paragraph, section and chapter level. Some work on the interpretation of tables, graphs and diagrams is also included. The questions are of varying types but the length of all responses is kept to a minimum. Marking of this section is almost completely objective and can be carried out very quickly.

The writing section aims to test the students' ability to write several connected paragraphs and to handle description of structure, function and process from appropriate scientific inputs. These may consist of tables, flow charts, diagrams, graphs or any combination of these. The student is required to organize the information in a suitable form and to express it in simple but reasonably correct English. Marking is done by giving an overall impression mark (each writing marked separately by

two teachers) which indicates the overall success of the writing task, seen as the result of the student's ability to organize the information, use the appropriate lexis and discourse markers, and to express meaning grammatically.

Our assessment policy is not in the avant garde of communicative testing, nor does it reconcile all the demands of students, teachers, course designers, testing specialists and the client college. A priority in our present approach is to avoid diverging too far from college policy. While still examination-based and mark-oriented the policy of this relatively young institution is neither static nor inflexible, and we feel that there is scope for satisfactory development of our English testing procedures within this context. In addition, we consider that our parity with the three main science subjects, manifested in the 25% weighting accorded to English in the final examinations, has a positive effect on the way the students regard their English studies, and we would not want to lose this advantage by testing in radically different ways.

In the future we hope that the consistent use of an examination of the type described will allow us to build up a bank of tests that can be adapted for re-use from year to year. In turn this will allow us to make generalizations about overall student levels and comparisons of successive student intakes, and so should provide stable data for useful longitudinal investigations into the role of English proficiency in the students' further studies. Another major priority is the development of the banding system in current use, to allow for comparisons to be made between results on this course and other ELC courses. And thirdly we would like to develop further economical ways of assessing the progress made between entry and exit, which entails assessment at the beginning and at the end of the course of both general proficiency and task completion.

In the meantime we are at last able to give our students precise information about the final examination they will take in English. We cannot give them things to learn, like lists of rules or pages of notes. But we can offer revision sessions where they can practise tasks of the same kind as those they will be required to do in the examination and discuss the procedures that are involved and the standards expected. The examination then ceases to be a mystery, a peculiar process unlike any other in their experience, and thus acquires for the English course a status comparable with that of the other subjects of the first year curriculum.

Testing oral interaction between bands three and five

Peter Corbett

Introduction

This chapter describes a test designed to assess the level of oral interaction of students on English Language Centre 101 course for students from the Faculty of Meteorology and Environmental Studies in the ELC Medics/MES Department. The test took the form of an interview/discussion during which questions based on the science content of the 101 course were used to test the oral interaction skills of students in small groups.

2. The students

Thirty-three students were tested. They were all undergraduates in the Faculty of Meteorology and Environmental Studies. Twenty-nine of the students were Saudi Arabian, three were Yemeni and one was Pakistani. On entry to the ELC the students had all taken a placement test consisting of a grammar/vocabulary test and a writing test. Thirteen of the students had then completed the one-semester Foundation course MES 001, and were at the time of the interview/discussion in their second semester at the ELC. The other twenty students had been placed directly on the MES 101 course on the basis of their marks in the placement test. All of the students were in the eighth week of the 101 course at the time of the Oral Interaction test.

3. Aims of the test

The test was intended to conform to specific guidelines. These were as follows:

3.1 The test should have normal status for teachers and students and be a routine part of the course.
3.2 It should be relevant to the students' needs and interests.
3.3 It should relate to the objectives of the course and to the materials used and approach followed.
3.4 It should encourage the students to think about their purpose in learning English, and their attitudes towards their English studies.

3.5 It should provide results which reflect the students' ability to speak and understand English in a controlled communicative situation.

4. Procedure

4.1 The test took place in April 1982, in class time.

4.2 The students were informed that the test would take the form of an interview/discussion, during which they would be asked questions on the work that had been done on the course.

4.3 Four members of staff were involved, all of whom taught on the 101 course. Each interview was attended by two members of staff, one teacher acting as the main interviewer while the main role of the second teacher was to act as assessor, although he was not debarred from asking questions or joining in the conversation.

4.4 The students were interviewed in eleven groups, each group containing three students. The groups were formed on a random basis.

4.5 The questions used were taken from a list of fifty-seven questions which had been prepared in advance. The two sets of teachers used the same list, but different selections from the list were made for each group of students. The list which follows gives those questions which were asked three or more times.

	Times asked
(a) Maths: numbers and expressions	
How many digits are there in the number eleven?	4
What is another name for zero?	6
Is twenty-third a cardinal or an ordinal number?	3
What is addition used for? Give examples.	3
What is the sum of nine and three?	6
What are the factors of six?	3
What is the product of six and five?	6
What is the difference between the US billion and the UK billion?	4
What does the fraction 7/8 show? Explain it.	5
(b) Life processes	
What are some examples of life processes?	4
Where does cellular respiration take place?	3
What is the difference between a living and a non-living thing?	6
Where do plants get their food from?	3
What is the difference between breathing and cellular respiration?	3
What happens when a molecule of ATP breaks down?	5

(c) Atomic structure	
What is an electron?	8
What is a proton?	6
What is the charge on a neutron?	4
What is atomic number?	5
What is the charge of the nucleus?	5
What is the difference between an atom and an ion?	3
How many neutrons are there in hydrogen?	5
What is the similarity between ^{9}F, ^{17}Cl and ^{35}Br?	6

4.6 The interview/discussion for each group lasted for fifteen minutes. The approach was informal, since the aim was to use the questions as a stimulus to further discussion in order to evaluate the students' oral ability, rather than to assess their knowledge of scientific content. Questions were asked of specific students, but if a question could not be answered by one member of the group it was thrown open to other members. Interchange between members of the group was allowed.

5. Evaluation of student performance

Evaluation was carried out by the interviewer and assessor immediately after the completion of each interview. The performance of individual students was evaluated using the British Council Mini-platform Interview description of performance levels. This specifies eight bands, Band one indicating *No functional communication in the language* and Band eight indicating *Complete, appropriate, fluent, effective communication.* For the purposes of this test, Bands three to five only were referred to. The MPI description of performance at these band levels is as follows:

BAND 5 Communication in connected utterances now spontaneous and appropriate to a wide range of conversational topics.
Can handle and develop new elements in conversation, beginning real give and take with interlocutor.
Interaction close to normal speed, only occasional hesitation.
Pronunciation and grammatical control – has some difficulty only in more complex constructions.

BAND 4 Communication now is connected, longer utterances.
Discussion of immediately relevant situations possible.
Can deal in a limited way with unpredictable elements.
Unlikely to initiate in conversation.
Interaction still slow and usually hesitant. Pronunciation

and grammatical control adequate for basic constructions, difficulties with complex constructions.

BAND 3 Communication limited to short utterances but simple information and ideas can be dealt with.
Reliant on well-rehearsed basic conversational elements.
Requires cooperative sympathetic interlocutor.
Needs time and effort to take in and make every utterance.
Pronunciation and grammatical control limited.

Students whose performance fell midway between two bands were awarded half bands. Thus Band four point five indicates a student whose performance was midway between Bands four and five.

VERY GOOD	Band 4.5
GOOD	Band 4
FAIR	Band 3.5
POOR	Band 3 or below

The results of the oral interaction test were compared with the results of the students' mid-term assessment which was given in the same week. This was a written examination which consisted of a reading text with comprehension questions, questions designed to test dictionary use, and the production of a written report of a science experiment from visual input.

6. Results

6.1 The results of the oral interaction test are given below:

Band	No. of students
5	0
4.5	6
4	13
3.5	13
3 or below	1

6.2 Comparison between oral interaction test and written examination:

6.2.1. Six students were placed at Band four point five in the oral interaction test. Of these six students, fived gained 50% or above in the written examination and one scored 46%.

6.2.2. Thirteen students were placed at Band four. Of these, eleven gained 50% or above in the written examination and the remaining two failed.

6.2.3. Of the thirteen students who were assessed at Band three point five nine failed the written examination, three passed, and one achieved a good pass (72%).

6.2.4. The student who was not considered to be above Band three level in the oral test also did badly in the written test (19%).

7. Comments

The organization of the students in groups for the oral interaction test appeared to have several advantages. It encouraged a more relaxed and natural communicative situation, with more similarity to normal classroom procedures than the situation whereby individual students are interviewed alone. Conversation was possible not only between the interviewer and one student, but also within the group of students. It was also slightly less time-consuming than individual interviews. The use of content questions provided a useful context for the interview and allowed the interview/discussion to relate to the work that had been covered in the course. In general, in both timing and content the test appeared to be a useful complement to the written mid-term test.

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ESP for the University

In the late 1970s and early 1980s British involvement in a programme of language development for university students at King AbdulAziz University, Jeddah, led to an extensive series of papers on practical aspects of ESP course design, methodology and materials development.

The papers selected for this volume reflect the concerns of practitioners as they grappled with the needs of university students to perform more effectively in English for their academic development. Taken together, they constitute a valuable and comprehensive examination of practical issues in teaching languages for specific purposes.

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