

The Reading and Writing Programme at the Asian Institute of Technology: criteria considered in the design of a reading and writing programme at the postgraduate level

Mark Ellis

INTRODUCTION

The needs of the students at AIT in terms of their reading and writing differ from engineering and science students at other universities in terms of degree more than of kind. Although students are postgraduate, and usually with several years of English behind them, they share with all other students faced with engineering or science texts the same motivation. This is the retrieval of information which is explicitly stated. The obvious contrast here is with students of literature who are faced with texts where the information is often presented less explicitly and where understanding will be of degree, and directly related to the development of the reader's sensibility.

Engineering and scientific texts have a tendency to be densely loaded with information. There is a constant barrage of areas, such as cause and effect, purpose, and comparison in the support of such function areas as Definition and Process. There is little or no pause for comment, reflection or any other discursive behaviour. Furthermore, students deal with texts of direct reference to their field of study, where embeddings and nominalisations are commonplace, and where a feature such as cause/effect might well be hidden to the casual and uninformed reader by an apparent sequence.

The first premise, therefore, behind the development of the AIT materials, is that while engineering and scientific texts are neither more nor less difficult than any other form of written English, they may be different and be shown to display different features. The second major premise is that the student can be shown various ways in which the language system operates so that he can manoeuvre his way not just through the text in question, but, through that text as a representative of all reading texts. Essentially we feel we are teaching reading, and not just reading for engineers.

THE SPECIFIC BACKGROUND

- i) All students are postgraduate, and come from academic, commercial and administrative backgrounds in more than 20 different countries.
- ii) All students are given a placement test on arrival, as a result of which they are either exempted from English, or asked to do one, two, or three terms of English. English courses run concurrently with the regular courses.
- iii) Classes are heterogeneous. There will always be a minimum of two or three engineering divisions represented in any one class.
- iv) The actual fields of study cover the following areas:

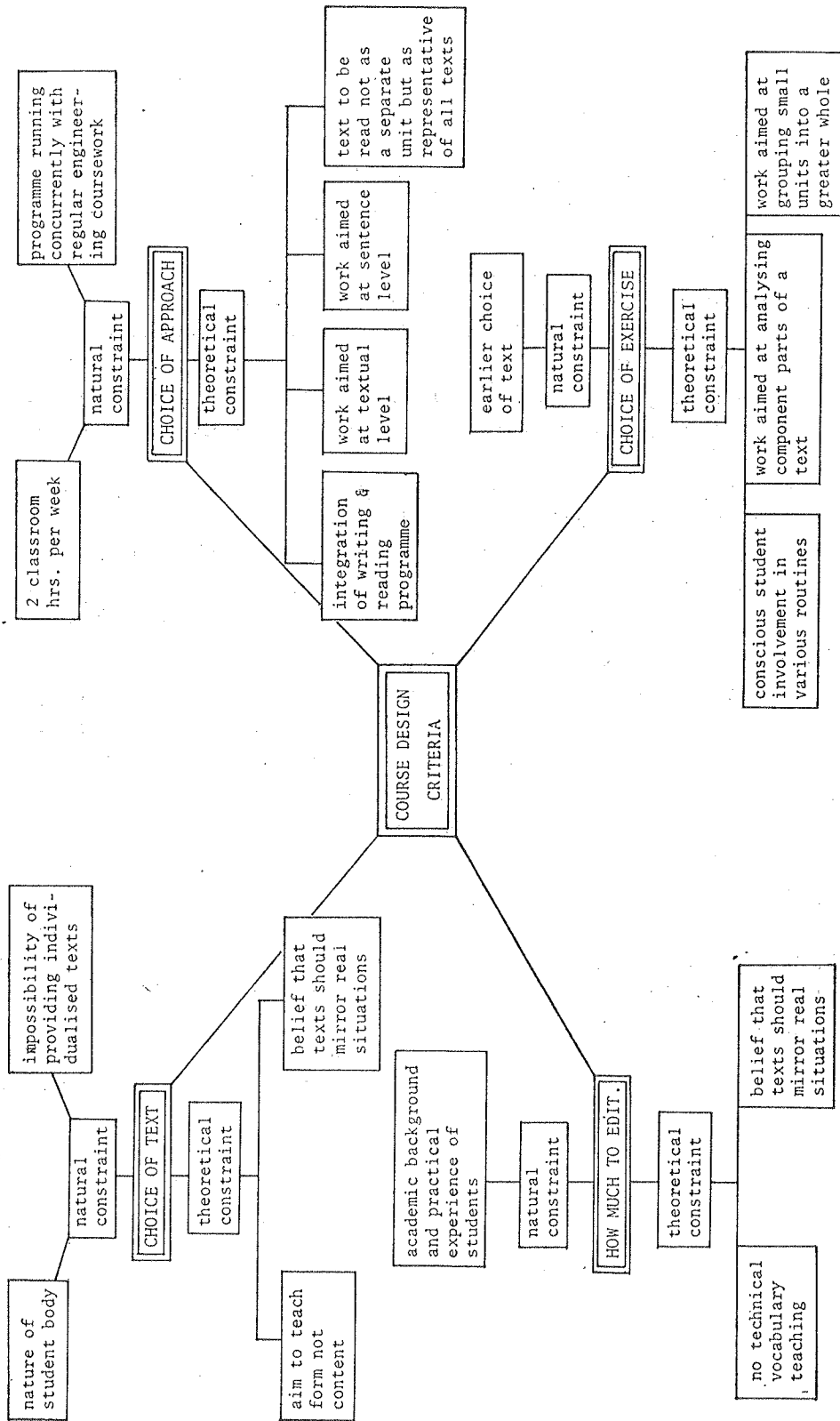
- . Agricultural and Food Engineering
 - . Human Settlements
 - . Environmental Engineering
 - . Geotechnical and Transportation Engineering
 - . Industrial Engineering and Management
 - . Structural Engineering and Construction
 - . Water Resources Engineering
- v) The student at AIT reads for the following purposes:
- a) to supplement materials presented elsewhere, usually in a lecture or at a seminar
 - b) to help in the conduct of his own research, either for his Master's or Doctoral thesis, or for any special report that he might be asked to submit
- vi) The student at AIT needs written English for the following purposes:
- a) for his Master's or Doctoral thesis
 - b) for any special report that he might be asked to submit
 - c) to take notes and summaries in support of his private reading
 - d) to take notes and summaries in the lecture/seminar situation.

STUDENT MOTIVATION AND ATTITUDES

The following criteria concerning student motivation and attitudes have been taken into account in the design and construction of the AIT Reading and Writing Programme. They break down into two basic groups: the student's initial personal attitude to the learning of English in the AIT context, and the student's initial personal attitude to the learning of English as a foreign language.

POSITIVE	NEGATIVE
a) English is the medium of instruction and general communication	a) -
b) Awareness of personal weakness	b) Unawareness of personal weakness
c) Strong personal desire to improve English in whatever area guided	c) Strong and often unrealistic beliefs in what he would like to achieve from an English course.
d) -	d) Bored with English as a classroom situation
e) -	e) Believes he reads and writes well already, and perhaps better than some of those exempted from English
f) -	f) Only willing to believe that texts on own subject are useful
g) -	g) Works at sentence rather than text level
h) -	h) Works at the level of the minimum unit, (often the single word), rather than with language in groups.

CHART TO SHOW COURSE DESIGN CRITERIA FOR THE AIT
READING AND WRITING PROGRAMME.



Correlating the previous chart with the factors mentioned under Student Motivation and Attitudes we arrive at the following observations and conclusions:

CHOICE OF TEXT

There are fourteen units in the programme, each with two interrelated passages. If each division were to be catered for in terms of content, in each of these units the Language Centre would have to deal with 126 separate units for the 9 engineering divisions projected for 1979. Each of these 126 units would contain two texts and appropriate exercises and diagrams.

This is clearly an impossibility.

There is a strong initial student belief, however, that only 'relevant' content should be used. There is also the observed fact that students undoubtedly perform more readily with material that is familiar in terms of content.

Our own solution is to compromise, but not too strongly. An introductory unit has been written with the express purpose of attempting to persuade the student that he is learning skills, not facts, and analysing form, not content. There is always, however, a considerable burden on the teacher to explain just what is being done, and why. The extent of the compromise on our part is that we have allocated two units per engineering division in terms of the textual content. There are always, in addition, obvious areas of overlap.

Choice of text also reflects our belief in presenting the student with the kind of material he will meet, either in class or in individual research. Essentially, at this stage, we feel we must teach the way in which the text is formed, and not use the text as a convenient vehicle for teaching a syllabus.

THE QUESTION OF EDITING

The preceding comment applies here equally well. Included in the programme are texts which are not particularly good examples of English in terms of style, but they are felt to be important because they are representative of English that is encountered and must be dealt with. There is the minimum of adaptation. What editing there is usually consists of excising material which separates the more interesting and vital parts of the text in question. Vocabulary is not changed. Our only concession to lexical difficulty is occasionally to gloss items which are not otherwise available through inference, and whose meaning is necessary to understanding.

CHOICE OF APPROACH

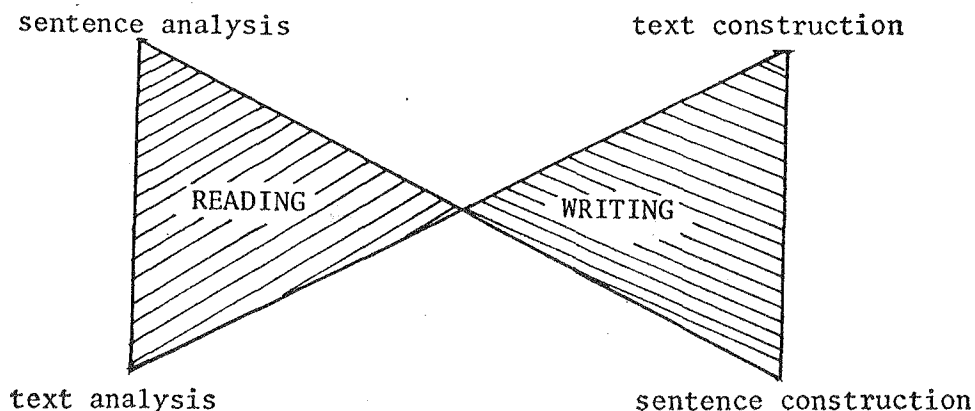
The great majority of students entering AIT have studied English for a number of years. Many of them possess great confidence and exhibit considerable oral fluency. However, on testing their ability to retrieve information from a text, or to write a report, a surprising number prove themselves inadequate.

Poor performance in our entry test often comes as a surprise to the students. Previous tests they have taken reflect the previous emphasis of the teaching – at the single word and sentence level. Time and time again we are shown that teaching at pre and university levels is not preparing students to handle stretches of English at a greater length than the clause or sentence level. Our primary concern, therefore, is to remedy this situation. We also have to do considerable work at the sentence level in order to try to remedy the confusion that all too often continues to exist.

The text is used as the point of contact between teacher and student. And although we isolate and concentrate on various functions and features as they occur in the various texts we attempt to put across the idea that all texts have much in common with each other, so that the change from one text to another is really only a change of venue, and does not necessarily mean a change of tactics. Each text is representative. The variety of content calls on features which only enrich the area represented; it does not alter the steady patterns within sentences, nor the ways in which those sentences can be interrelated.

The text is treated through particular, set routines. It is at first a maze, but one that can be learnt. The skills learnt in analysing the text are then set in reverse, so that the student works at building up his own text, either in summary form, or through other stimuli, such as diagrams.

Diagrammatically, the progress of each unit can be shown this way:



CHOICE OF EXERCISE

Previous work by the student on reading has concentrated on vocabulary skills and comprehension testing through either multiple choice or simple Wh/type questions. Tactically, in order to involve the student from the motivation point of view, we have set out to make it quite clear that we are doing something different. We are also constrained by the decision to integrate the reading and writing areas, so that written work bears direct relation in terms of content and type to the reading text.

In practice, this means that language functions isolated in the text would be practised in either a summary or in interpretation of diagrams/figures, etc. It also means that the text itself is a language model for the writing exercise in question.

The text is approached from two angles. The first is to concentrate attention on clause build-up and certain lexical features – in other words working within the sentence. The second is to concentrate attention on the way in which the text is held together. Exercises in this area involve questions on reference and schematic/conceptual diagrams. At a later stage in the programme the emphasis shifts to anticipation of content, both at the lexical unit and the clause unit. Again, this involves a synthesising of both the reading and writing aspects.

In terms of student motivation and the ability of the student to work on his own this overall approach involves the student knowingly carrying out certain routines, and knowingly doing so to a specific end. It also allows minimum teacher exposition within the class, so freeing the teacher to concentrate on individuals and their individual difficulties.