

**NOTE—MAKING AS PROCESS:
A CROSS—CURRICULAR LEARNING STRATEGY**

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1. Introduction

Four words in the title of this paper provide the key to its contents, and therefore deserve to be highlighted.

The first is *process*: we shall be looking at note-making not so much in terms of *product* (i.e. the actual form taken by note-making procedures: notes, summaries, reports, etc.), but rather more in terms of the *cognitive and linguistic operations* that are involved in processing and synthesizing a text.

The second important word is *cross-curricular*: by focussing on *processes* rather than on *products*, on *skills* rather than on subject-matter *content*, we will be able to consider note-making as a powerful tool to be used across the full range of school subjects. English, as part of a school's overall language curriculum, has of course, side by side with mother-tongue teaching, an outstanding and specific contribution to bring.

The final words worth highlighting in the title of this paper are *learning strategy*: we will be concerned mainly with students working at school, having to process and interiorize subject-matter, and therefore needing to be trained in appropriate *strategies* to cope with the demands of school tasks. As such, training in note-making skills should be regarded as part of a *study skills* approach to education.

2. Focus on studying texts

We might start by first asking ourselves *at what stage* in reading/studying a text a student would need note-making skills, and *why*. To answer these questions, let us consider the stages involved in a reading/studying process (*Fig. 1*): after an initial *survey/anticipation* stage, aimed at getting an overall idea of the contents and at developing appropriate expectations, a reader would then proceed to an *intensive reading* stage, where all information would be decoded in detail. Full comprehension cannot be said to have taken place, however, unless the reader goes through the next stage, which involves *processing* the text, by recognizing the network of relationships which makes up the basic structure of its meanings, and by *recalling* its contents, i.e., reconstructing in one's mind that structural network, making it one's own. It is at this crucial stage in reading/studying a text that note-making has a distinctive contribution to offer; by providing the reader with specific strategies to assist him/her in this very demanding process. The process itself, and the corresponding product it may yield in

the form of, say, notes or summaries, will then constitute the basis for further important stages in reading a text, involving such activities as *revising* and/or *memorizing* it for study purposes.

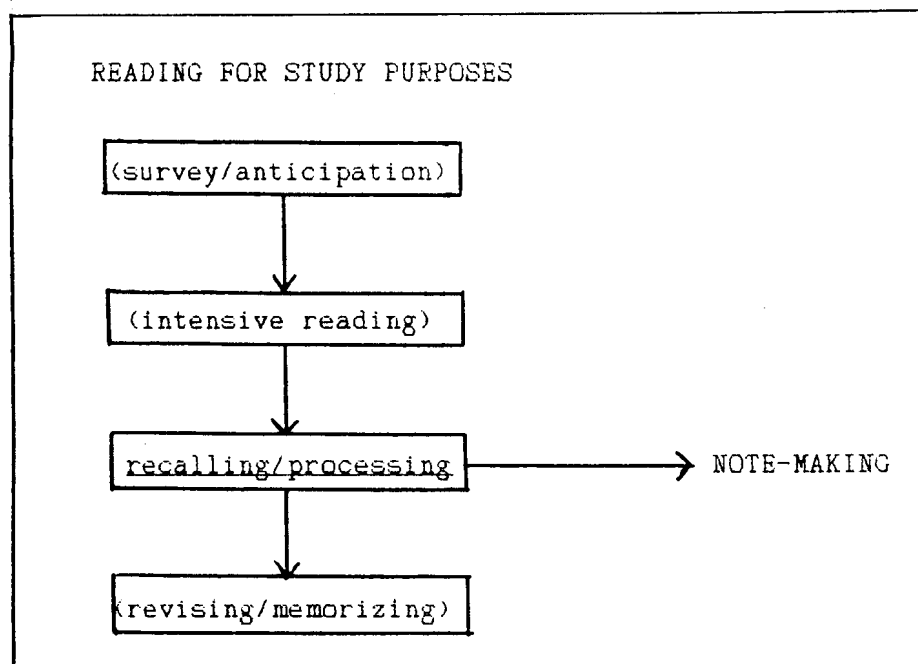


Fig. 1: A model of reading for study purposes

3. What does «processing a text» involve?

Basically, pre-processing a text involves a close relationship between a reader and the text itself in the environment of a learning situation (Fig. 2). The «situation» will be made up of such elements as the *reader's motivations, purposes and learning styles*, the *text type* under consideration, and the *context*, which will in turn include the «addressee» of the note-making product (e.g. the reader him/herself, the teacher, other real or imaginary participants...), the time and space available for the processing operation,, and other variables of the learning environment.

However, what interests us most here is the *relationship* between the reader and the text, a relationship mediated by *cognitive* and *linguistic operations* and by their corresponding *technique*.

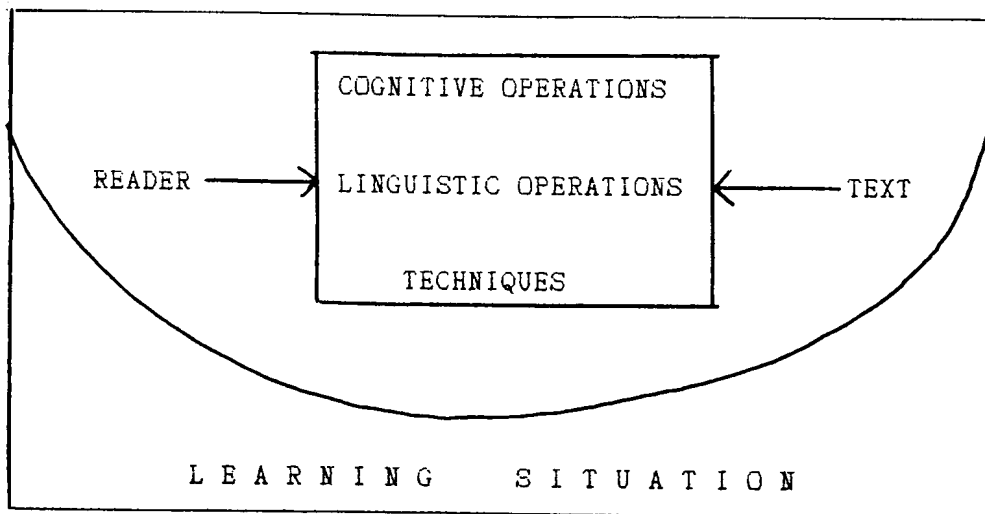


Fig. 2: Factors involved in processing a text

4. Cognitive operations in note-making procedures

Although we may speak of *cognitive* as distinct from *linguistic*, this is in fact an artificial breakdown for discussion purpose only, since in practice they are two different faces of the same reality: processing a text would not be possible without the assistance of language, and language itself reflects the workings of the reader's mind. Such cognitive operations could be summarised as follows:

- a) distinguishing levels of information;
- b) selecting the desired information;
- c) rearranging the selected items.

4.1 Distinguishing levels of information

The suggestion which is often made in this respect sounds simple enough: you would just have to distinguish the *main* or *primary* items of information from the *subsidiary* or *secondary* ones. I have always found that this formula is too general to be applied in a productive way by a reader studying a text, since it does not give sufficient insights into the heart of the problem: what do «main» and «subsidiary» mean? Why and how are they different? How can one spot this difference?

In my search for a series of more specific criteria to distinguish levels of information, I have tried to use a taxonomy originally included in Munby (1978), by checking whe-

ther its categories would actually apply to the kinds of expository/informative writing most often met by students at school, both in English and in mother-tongue textbooks. I have therefore examined a series of subject-matter textbooks and a variety of reading and studying materials: the results of this survey seem to point out that there is scope for identifying levels and types of information in more specific ways than the simple «main vs. subsidiary» opposition, and for training students to recognize such levels and types.

For a practical demonstration of this procedure, let us examine the following paragraphs taken from English textbooks:

1. Whatever the environment, it is likely to be made up of a *physical landscape*, the scenery of the land as made by nature, a *human landscape*, the scenery as altered by people, and a *cultural landscape*, the people who live in these surroundings.

It would be easy enough in this first case to identify the *main* items of information as the ones printed *in italics*, and the *subsidiary* ones as the phrases that immediately follow them, providing *definitions*, a *clarification* or a *reformulation*. However, as I have already mentioned, in many other cases we can and should be much more specific than this.

2. Some volcanic areas are also popular tourist attractions. Besides the famous volcanoes such as Vesuvius and Etna in Italy and Fujiyama in Japan, hot springs and geysers attract many people.

In this case, for example, the initial *statement* («Some volcanic areas...») is followed by a number of corresponding *examples*.

3. In the world today 250 people are born every minute, but only 100 people die. This is indeed an alarming phenomenon.

A *fact* stated in the first sentence with the aid of precise figures is followed by an *opinion* in the second sentence.

4. The growth of population is one of the main factors affecting the environment: food and raw materials become more scarce, energy resources are more and more used up, and pollution and waste increase.

Here the initial *proposition* («The growth... environment») is then substantiated by a series of *arguments*.

5. Nuclear power stations use the heat energy produced when uranium is «burned». This energy is used to boil water which drives turbines which in turn generate electricity.

In this case the reader has to perceive that the text is describing the *stages* in a *process* (notice that the name of the process itself is not explicitly mentioned). Levels of information to be distinguished here will therefore include the individual *stages* as opposed to the overall *process*.

6. The heart receives blood from and pumps blood to the body tissues and the lungs. Chambers that receive blood are called the *auricles*. Chambers that pump blood are called the *ventricles*.

In a similar way to the preceding paragraph, we would here need to distinguish between the overall *system* or *structures* and its *parts*.

7. *Vertebrates* belong to one of the seven main groups in the animal kingdom. All vertebrates have a backbone running down their bodies. The other six groups are all *invertebrates* (without a backbone).

We have thus been able to recognize several different ways in which items of information can be said to be different from one another: beyond the basic (but often not very illuminating) difference between *main* and *subsidiary* information, we have been able to distinguish between *statement* and *example*, between *fact* and *opinion*, between *proposition* and *argument*, between a *process* and its *stages*, between a *whole* and its parts, and, finally, between a *category* and its *exponents* or *elements*. I believe there is ample scope for making our students aware of these distinctions, and for training them to explore and recognize the linguistic clues through which such distinctions are made possible in texts.

4.2 *Selecting the desired information*

Once a reader has recognized different levels and/or types of information within the text, he will be faced with the problem of *selecting* which items of information to retain and which to discard. Selection, however, is far from being a neutral, objective process. Labelling an item as «main» rather than «subsidiary», deciding whether to

include or delete examples or arguments, mentioning the stages rather than just the process, will all depend on a variety of factors, including.

- our *purpose* in making notes, which in turn implies
- the *kind of information* we are most interested in
- the *degree of detail* we choose to adopt
- our *previous knowledge* of the topic, as well as our addressee's
- the *space* and *time* available

This accounts for the extremely wide range of notes that can be made in the *same* text by different people, or by the *same* reader on different occasions or for different purposes. And this should consequently be made clear to our students, by making them aware of the purpose and context of their study and note-making experiences.

The two main ways to select the desired information imply two basic kinds of operations:

- *cancelling* information on the basis of the criteria already established: Text 1 above could, for instance, be reduced to *The environment is made up of a physical, a human and a cultural landscape*; in Text 2 one could delete the examples; in Text 4 the arguments, thus retaining the initial sentences (which might be called the «topic sentences»);
- *unifying* information into higher units of meaning, replacing smaller, particular, concrete units with larger, more general and more abstract units. This calls for the higher skills of *abstraction* and *generalization*. The useful exercise of asking students to provide a title for a passage is clearly based on the application of such procedures: in Text 5, for example, one could identify the stages and go back to the overall process, which might be termed *The production of nuclear energy*. Text 7, on the other hand, could be handled by trying to identify the most general term (*animal kingdom*) and the elements which can be subsumed under it (*vertebrates, invertebrates*); again, the *seven main groups* mentioned in the Text can be classified according to the basic criterion mentioned (the presence or absence of a backbone), thus assigning six of them to the *invertebrate* group and calling the remaining one the *vertebrate* group.

4.3 Rearranging the selected items

Here we are concerned with giving a new *form* to our synthesis, by reorganizing the selected items according to a logical order, above all an order which might make our synthesis easier to understand and possibly memorize. To do this, we need to choose a suitable *format* and to make active use of the appropriate *linguistic* and *graphic/visual* devices. Particular kinds of information will lend themselves to be synthesized through particular note formats, which will in turn require appropriate techniques. *Classifications*, for example, can be clearly presented through the use of charts, tables and diagrams (*Fig. 3*); *processes* and their *stages* through flowcharts (*Fig. 4*); *systems/structures* and their *parts* by using drawings and sketches (*Fig. 5*).

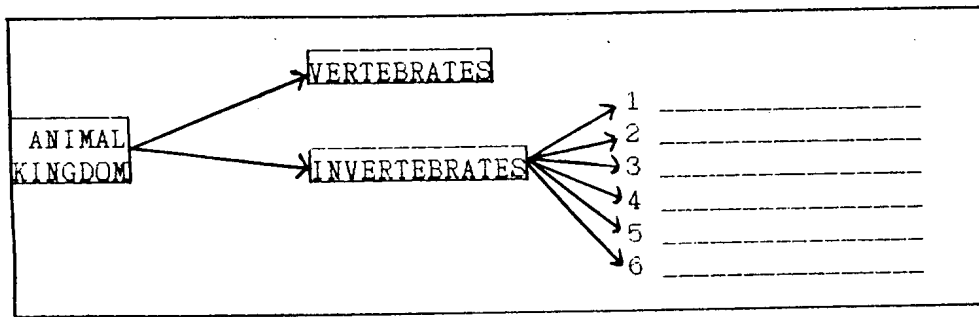


Fig. 3: Example of classification

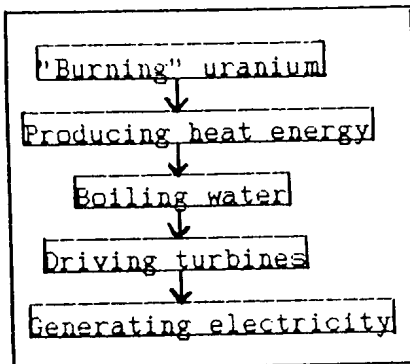


Fig. 4: Example of flowchart

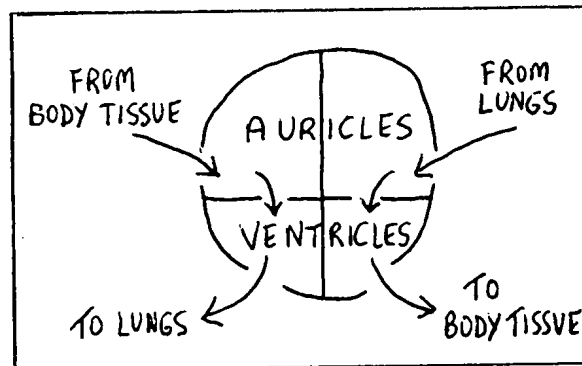


Fig. 5: Example of visual notes

5. Linguistic operations

The choice of a suitable note format also calls for the practice of more specifically linguistic devices, some of which are briefly mentioned here:

- *paraphrase* through, e.g., *word omission* and *sentence compression*: see the synthesis of Text 1 offered above, and also this synthesis of Text 4: *Population growth implies scarcity of food/raw materials, use of energy and increase in pollution/waste*;
- *normalization* (deriving nouns from verbs and adjectives): see in the previous example *scarcity* from *scarce*, *use from used*, *increase* from *increase*; also see the use of *-ing* forms (verbal nouns) in the flowchart of Fig. 4;
- *premodification/use of compound nouns*: *The growth of population* in Text 4 becomes *Population growth* in note form;
- *use of superordinate terms*: *vertebrates* and *invertebrates* can be subsumed under the more general term *animals*.

All of these linguistic devices, and others, can provide contextualized opportunities

for valuable language practice, besides offering useful techniques for developing note-making procedures (for additional examples and ideas, cf. Mariani 1987).

6. Conclusion

We should be aiming at a student-centred approach to note-making as a learning strategy. This calls for materials and activities which

- make the student aware of his/her personal *learning style*;
- develop cognitive/linguistic operations *explicitly, systematically and gradually*;
- enable the student to *choose* from, *experiment* with and *assess* (and self-assess) a variety of strategies;
- promote the integration of study skills within the subject syllabuses, thus increasing their cross-curricular potential.

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