A technique for teaching skill in reading in a foreign language is based on the assumptions that the development of foreign-language reading skills is similar to the development of native-language reading skills, that the purpose of reading is to integrate new and existing knowledge, and that the reader's knowledge, opinions, or experience should be emphasized as much as the text content. The technique involves the use of pre-reading questions exploring the reader's opinions, questions accompanying the text that encourage evaluation of the opinions expressed in the text as it is read, and exercises that encourage the reader to predict what subsequent text will contain, a feature that is especially useful for teaching languages for scientific purposes. Use of the approach among science students in an English-medium faculty in a Middle East university, where traditional reading instruction was expected, required presenting the prediction exercises as a comprehension test and adjusting the technique based on the students' responses. The advantage to the use of prediction is that it allows an insight into the cognitive processes at work when a reader approaches a text, and it emphasizes the role of background knowledge and experience in comprehension. The immediate value of this type of work lies in the break it makes with established habits of looking at texts as completed artefacts, rather than as opportunities for mental interaction. The long-term value of predictive work has yet to be proven. (MSE)
PREDICTION AND REFLECTION IN READING IN A FOREIGN LANGUAGE

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The teaching of reading in a foreign language is rather a mysterious activity. It is certainly less well researched than the teaching of reading in the mother tongue. We are not really sure exactly what to teach or how we can best teach it, how far we should teach along LI lines, how far we should expect transfer from LI reading, how far L2 reading presents problems of its own which should be dealt with in different ways, and so on. Since we are rather short of hard experimental evidence, we rely a lot on supposition. One such supposition, which I shall adhere to in this paper, is that ideas which are relevant to the general development of reading skills in the mother tongue are also relevant to foreign language reading. Another supposition is that we are justified in using our intuition about material, and our experience of how it works in the classroom - since material would seldom be written if we had to wait for absolute proof of the effectiveness of the techniques incorporated in it. In any case, in this paper I shall be demonstrating, and advocating certain procedures and formats in comprehension materials; these are procedures which have been influenced by current views of the reading process. A good introduction to this general approach (with respect to LI reading) and one which goes beyond intuition into experimental back-up may be found in Lunzer and Gardner's The Effective Use of Reading (1979).

Before going into this, I would like to consider the kind of reading work which has traditionally been found in the language class. Traditionally, students read a passage, and then answer questions about it. The passage may be long or short. The questions may allow 'open' answers or have a multiple choice or true/false format. There may also be questions related to language points exemplified in the passage so that the passage becomes an excuse for work on grammar and vocabulary. Now if there is one thing which I hope we would agree on, it is that activities like this have not got much to do with the kind of reading which a student would normally do outside the classroom, in any language. A student doing this kind of exercise may read, but he will not be behaving like a reader. And I think that this should make us suspicious of this traditional type of activity, as far as the advancing of reading
skill is concerned.

There is another point to be made about the traditional comprehension exercise. Very often, questions demand reference to the passage and only to the passage. We find phrases like 'According to the writer, what is such-and-such?' In other words, the student has to pick out what the writer of the passage says, and is in effect forbidden to link up the content of the passage with his own knowledge or opinions. Now I suggest that this is completely counter to the natural reading process, and that this kind of question is not just useless, but actually likely to be harmful. Of course, I know it is important to distinguish the opinion of the writer from one's own opinion, but it is natural to do this in contexts where one's own opinion is valid and important and brought out into the open; and this in turn is a natural state of affairs in contexts which engage the reader emotionally and intellectually. But to demand this in passages which exist merely to provide reading for the sake of reading is, I suggest, simply encouraging an artificial approach to reading.

So, let us ask the question, 'What is a reader?' Well, first of all, in normal circumstances, a reader is one who has a purpose in reading. The purpose may be one of obtaining information, or intellectual pleasure, or emotional satisfaction. But it will not be reading for the sake of reading unless one happens to be in a classroom and is made to read by a teacher. This should worry us as teachers; I mean the artificiality of reading in the classroom, the element of compulsion in the reading task. But we can alleviate this artificiality. The main thing to remember is that genuine purpose in reading relates very much to the integration of new knowledge with existing knowledge. The reader reads in order to add something to what he or she already has. Now perhaps we cannot create a genuine purpose in the classroom, but we can try to make sure that the activity is genuine in so far as it is designed to link up with the knowledge or experience which the student already has. We can do this in two ways. First of all, obviously, we want the students to read material which tells them something they do not know already, or which tells things in a new way, or which conveys some emotional or aesthetic experience (so the text could be a scientific article, or a poem, or a novel; but it must contribute something to experience, yet not be divorced from it). This is very nearly a platitude, except that it is not so easy to achieve. The second thing is to have a format which emphasises the reader's knowledge, opinions or experience just as much as the content of the text. This means that we should use the reader's knowledge as a starting point, before presenting the text, not treat the reader's ideas as
something to be discussed at the end of the lesson, long after the text has been read.

EXAMPLE 1

UNIT SEVEN

SECTION I

A WOMAN’S PLACE

1. What do you think?

1.1 What power do members of a family have? In particular, what about the role of women in the family? How much power does a woman have as a wife or mother?

Say whether you agree or disagree with these statements. Put a ✓ in the margin if you disagree; a ✔ if you agree.

The role of wife and mother is the most rewarding one for a woman

A woman is likely to be happier if she can work outside the home

As wives and mothers women have a lot of power in the family

A woman is inevitably subservient to a man in the family

It is quite impossible for men and women to be equal partners in marriage

A mother is always the best person to look after her child

We must look for alternatives to the traditional role of women in the family

2. Below is an extract from a book by a writer, well-known for her feminist beliefs. In the book she challenges conventional views about women

2.1. Read the extract below and as you read note whether you agree or disagree by putting ✓ or x in the margin (if you agree strongly put ✔; if you disagree strongly put xx)

The unfortunate wife-mother finds herself anti-social in many ways. The home is her province, and she is lonely there. She wants her family to spend time with her for her only significance is in relation to that almost fictitious group. She struggles to hold her children to her, imposing restrictions, waiting up for them, prying into their affairs. They withdraw more and more into non-communication and thinly veiled contempt. She begs her husband not to go out with the boys, marvels that he can stand in the pouring rain at the football and then be too tired to mend the roof or cut the grass on the finest day. She moans more and more that he doesn't care what the children are up to, that discipline is left to her, that nobody talks to her, that she's ignorant, that she had given the best years of her life to a bunch of ungrateful hooligans. Politics is a mystery and a boring one; sport is evidence of the failure of men to grow up. The best thing that can happen is that she take up again where she left off and go back to work at a job which was only a stop gap when she began it, in which she can expect no promotion, no significant remuneration, and no widening of her horizons, for the demands of the household must still be met. Work of all kinds becomes hypnotic. She cleans, she knits, she embroiders. And so forth. Every wife must live with the knowledge that she has nothing else but home and family.
Example 1 begins with pre-text questions which explore the reader's opinions prior to actually embarking on the text (from advanced reading material by Barr, Glegg and Wallace, forthcoming).

What are some other characteristics of a reader? Well, if we think of a reader as a person with a purpose and with knowledge, it is easy to see that the reader is one who is actively engaged in what he is reading, all the time he is reading. The reader does not start out with some knowledge, read the text through as a whole, and then slot the new information in. Rather, the reader absorbs and integrates information as he goes along. I cannot stress this too much. Reading is a reading process, not a 'having read' achievement. So we should have questions which allow the evaluation of the text as the text goes along, questions within the text. Even if answers require revision in the light of subsequent chunks of text, that is quite satisfactory, because that is what happens when we read naturally.

Again in Example 1 we have questions along with the text, which encourage evaluation of the opinions expressed in the text as the text is read.

Focussing more closely on the active involvement of the reader with the text, we have what is perhaps the most important characteristic of a reader. A reader is one who is making hypotheses about what he is reading, both about the meaning of what he has read, and very importantly, the content which he is going to read. This is the reader taking part in a 'psycholinguistic guessing game' (Goodman, 1967), the reader considered as a person who is guessing what subsequent chunks of text are going to say. This is a most interesting aspect, and one which may be at the heart of any kind of efficient reading. Example 2 (again by Barr, Glegg and Wallace) is an example of a comprehension format which aims at encouraging the employment of this 'predictive' skill.

Now this kind of hypothesis forming by the reader seems to me to be particularly relevant to ESP. In a lot of specialist writing, it seems, the structure and content of a text is fairly predictable. And in certain kinds of scientific writing, reading the text involves tuning in to the argument or reasoning of the writer, and arriving at a conclusion along with the writer, which is very much an active, predictive involvement with the text. Thus, in Example 3 it is possible for a scientifically-aware student to guess that the next paragraph will report the observation that light from distant galaxies shows a 'red shift', and the conclusion that galaxies are receding from us, which is the basis for the theory of the expanding universe.
EXAMPLE 2

PART 3

WINDMILLS

Some people think we must find alternative forms of energy which are safer and not wasteful of resources - such as windmills.

The following text comes from a weekly news magazine.

Read the text and try to answer the questions within.

Use a mask to cover the part of the text you have not read.

There is a burgeoning of windmills. They are springing up in the fields and large gardens, some big enough to make a useful contribution to the energy needs of the household and others so small as to be only entertaining experiments. Recently the world's governments have shown an interest. The United States and Canada, West Germany and Israel, Japan and the United Kingdom, all

From the text above what features to these countries have in common that is relevant here? Read on ...

have plans for wind-driven electricity generators.

There is even a project for a very large windmill on the South Downs that will heat greenhouses. The attraction is the energy that the wind will give us free. In reality, of course,

What point is he going to make about the real situation?

you no more get free energy from the wind than you get free steam power because someone happens to give you a bucket of coal. You must harness the energy in both cases. And although your windmill's raw energy, unlike coal, is free, you still have to harness it in the most economical way for your particular needs.

Which is why you choose a

Can you say, in very general terms what comes next?

bicycle-wheel windmill that will charge a car battery and thus keep your Sony TV going, or a home-built Cretan windmill that will warm your house.

If windmills are to be more than emotionally attractive, the cost of the energy they produce, in terms of basic cost plus maintenance, must compare with the cost

- of what?

or at least, the only reasonably inflated cost, of energy from other sources. Even the bicycle-wheel generator, unless you build it from scrap

- what point will be made in the second half of this sentence?
EXAMPLE 3

(A previous section of the passage has already described the 'Doppler effect' according to which the wavelength emitted by a receding body is greater than the wavelength emitted by a stationary body. Students have also seen a page containing photographs of the spectra of various galaxies).

The Austrian Physicist, J. Doppler (1803 - 53) discovered this behaviour in sound waves, and it explains the well-known change of pitch of a train whistle as it approaches and passes us. The same principle applies to light. Every atom emits light of definite wavelengths which appear in a spectroscope as a series of coloured lines - a different series for each atom. If the atom is a receding body all the lines have slightly longer wavelengths than usual and the amount of the change depends uniquely on the speed. Longer wavelengths mean that the light is redder than usual, so that the light from a receding body shows what is known as a 'red shift'. The speed of recession depends on the amount of red shift.

Question: Can you guess what was discovered about the light from distant galaxies, and what this implied about the galaxies?

Of course, not all scientific writing is like this; much of it (for example in engineering and biology) is concerned with the description of static and dynamic systems. Yet even in those scientific texts which are less concerned with inductive or deductive reasoning, there does seem to be a high degree of predictability in the rhetorical structure, and this is something that the reader can be encouraged to take advantage of.

So much for the theory. What about the actual practice inside the classroom? I would like to report briefly on the reactions of students who tried out material incorporating this 'predictive' format. These were students of science at an English-medium faculty in a Middle East university. The students were extremely able, but were not accustomed to an English course in which they had nothing to learn in the sense of nothing to memorise. At first, activities in which they were required to predict the content of a text puzzled some of them. What was there to learn? How could they improve their performance? These are valid questions, which touch on the fundamental problems of how we teach a skill and how we know we have taught it. Probably, the best way of improving one's skill in prediction is by doing it, and there is little scope for the 'memorisation' type of learning.
which our students were accustomed to. Note however that it was probably the unusualness of the activity which worried the students. They would probably have been quite happy doing traditional comprehension work, which really has the same problems, but which people are accustomed to, and which is accepted as a valid classroom activity, almost without question. Yet, as with all classroom activities which involve learning-by-doing rather than learning-by-memorisation, one has to look for ways of finding out whether students are actually learning anything.

Partly because of this necessity, and partly because of the strong orientation towards classroom testing in the university, we were led to try to construct classroom tests involving prediction. Pages of a text were handed out one at a time, and students asked questions involving the prediction of content of the subsequent page. Answers were collected, then the subsequent page given out. And so on.

EXAMPLE 4

(The author is discussing the misuse of figures in statistical arguments.)

Unfortunately, so few people understand any statistics that they are apt to take an author's word for statistical evidence. Where statistics are quoted, take a good look at what is being said, and apply a bit of ordinary common sense. It may well be that either the figures are wrong, wrongly used, or based on criteria which you are unable to accept as valid.

Take the following example from a recent article in a reputable journal which I am sure would never have appeared in its present form if the editor had known any statistics. Two groups of girls (86 girls in each group) aged sixteen to twenty were matched for various things. One group had volunteered to go on an 'Outward Bound' Course (a course involving camping and outdoor activities). The other group had not.

Question 1: What do you think the rest of the paragraph will deal with? Explain your answer.

Question 2: The next sentence is:

(a) Approximately nineteen months later, the two groups were compared again.
(b) The conclusion of the experiment was as follows:
(c) This was bad experimental procedure.

1 But it might be possible to give probabilistic rules of discourse which would help the student. I believe that discourse analysis could be usefully applied in helping student to anticipate what a writer is likely to do at particular points in a discourse.
A page from initial attempt to construct such a 'test' is shown in Example 4, and some of the problems which arise may be appreciated by anyone who cares to try to answer the questions (Answers: 1. The rest of the paragraph deals with the experimental procedure; 2. The next sentence is 'Approximately nineteen months later ...': the paragraph explains how the groups were tested to find if any personality differences had developed between the groups). The main problem is that although with hindsight the progression of any text may seem logical and obvious, there can be substantial disagreement among native speakers about what the subsequent content of a text will be, while the text is actually being read. One answer is to have consultation with native speakers to make sure that there is agreement about what is likely to follow. The problems are comparable to (but greater than) those involved in marking cloze test, counting as correct 'any acceptable response', one way of determining correct responses being to have a kind of opinion pole of native speakers.

In subsequent 'tests', we did gradually manage to eliminate some of the worst problems, in that it seemed that the tests had more face validity as far as students were concerned, and were becoming slightly more reliable. Yet, even if one would not like to press the procedure too far as a reliable testing instrument, 'prediction' still has real value for the teacher as a classroom procedure. It allows an insight into the cognitive processes which are at work when a reader approaches a text, and it is particularly illuminating on the role of background knowledge and experience in comprehension. Students too, after initial puzzlement, seem to find the procedure absorbing.

To sum up: The immediate value of this type of work is, I believe, in the break it makes with established habits of looking at texts as completed artefacts, rather than as opportunities for mental interaction. The long-term value of 'predictive' work has not yet been proved, but it involves an activity which may, in principle, be amenable to classroom testing. Moreover, the investigations of Lunzer and Gardner (1979) referred to earlier also point to ways in which the value of predictive and reflective work can be studied. In the meantime, work of this kind can be readily incorporated in comprehension materials and tried out in the classroom, giving teachers the opportunity to evaluate it from their own experience.
Bibliography

