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## **STUDENTS AS ESP TEACHERS: AN INVESTIGATION OF SUCCESSFUL STUDENTS' ASSUMPTIONS ON READING AND METHODOLOGY**

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### ABSTRACT

The purpose of the study was to investigate the reading comprehension assumptions held by proficient foreign language students, taking a course in ESP (English for Specific Purposes). Eleven second-semester university students in computer sciences, out of a group of 68, were selected for their proficiency in a reading comprehension test and asked to act as teachers for the non-proficient students in the group, working in pairs, outside the classroom. Their task, as a pair, was to select an article from a magazine in the area, write a review of the article and, for the proficient student, write a diary of each encounter with the non-proficient student. The paper describes the data found in these diaries. In general, they show that the proficient reader's assumptions of the reading process and the way reading should be taught to low-proficiency students are very similar to what is regarded as sound methodology in the ESP literature.

### INTRODUCTION

The procedures used in ESP (English for Specific Purposes) classes are based on certain assumptions about reading theory and reading instruction. Traditional examples of these assumptions, in terms of

reading theory, are the notions that readers have to contribute to the text with their previous knowledge of the world, that readers do not need all the information provided by the text to get its meaning, and that language efficiency can be compensated by other knowledge sources. In terms of reading instruction, certain strategies for dealing with the written text are selected and taught to the students. Typical examples of these strategies include practical advice such as using typographical clues from the printed page, predict from the title, use information from illustrations -and more abstract procedures such as reading for meaning, recognizing rhetorical cues and using context to guess the meaning of unfamiliar words.

While most of these strategies can be regarded as standard procedure in ESP classes, they have sometimes received harsh criticism from both students taking ESP courses and teachers who are advised to use these techniques with their students. Some teachers, for example, may feel uncomfortable with the idea that they should encourage their students to read by skipping unknown words, mainly when it entails bypassing the

syntactical processing of a sentence. They believe that the higher semantic and discourse elements of the text can only be realized if the lower-level components of reading are carefully taken care of.

Reading comprehension is viewed as the culmination of a long and arduous process of language learning with no place for any kind of shortcut.

Unsuccessful L2 readers, on the other hand, also seem to feel frustrated when they are advised to look beyond unknown words for meaning.

They view the unknown word not only as a reminder of their ignorance but as a potential source of confusion and insecurity, a trap that is set to betray them in a thousand unsuspected ways. The advice that L2 readers should guess from context may sound as insult to them, especially those who have done nothing else when forced to approach a foreign language text. They feel they have the right to receive something more substantial in their ESP classes.

In terms of ESP traditional procedures, we seem to know the perceptions of those who defend these procedures as ESP teachers and

those who criticize them, both as non-ESP teachers and unsuccessful students. Little is known, however, about the perceptions of those who can contribute most to an assessment of ESP procedures: the successful L2 students. This is the main concern of this investigation.

## **THE EXPERIMENT**

Current investigations on the issue of student's perception of ESP methodology (e.g. Celani et al., 1988) usually focus on students' reactions to a given ESP course, using data that have been collected after the students have been exposed to ESP classes. This investigation takes a different approach; it uses as subjects students who are proficient L2 readers, but have never attended a course taught by an ESP teacher, although some of them had been exposed to ESP materials.

The hypothesis is that, since they are proficient readers, their perception of reading comprehension and reading instruction should be similar to what is regarded as sound theory in terms of ESP. Many of the

procedures used in ESP are based on assumptions that have not been adequately tested yet. If these students, who were not familiar with the ESP terminology, could produce data that matched those assumptions, they would help validate some the procedures used in ESP. Otherwise, if a mismatch were found, the procedures might need some revising; those who criticize ESP methodology might be right after all.

The subjects were 22 undergraduate students taking an ESP course in Computer Sciences. They were selected from an original group of 68 students through a reading comprehension test and classified into two separate subgroups: 1) the proficient group, made up of readers who scored higher than 90%, and 2) the non-proficient group, comprising those readers who scored lower than 40%.

The students in the proficient group had considerable experience with the language, either by having taken courses in language centers or by reading magazines in their areas of interest; two of them had lived in English-speaking countries. The students in the non-proficient group usually justified their lack of competence in the language by not having

a good language course at school and not being able to go to private foreign language centers.

The reading comprehension test, which was used to classify the subjects, had four different types of comprehension questions, categorized as: 1) scanning (e.g. *How old was Penrose when the article was published?*); 2) skimming (e.g. *Which paragraph describes computer limitation to rules?*); 3) detailed reading (e.g. *Why does the physicist attack the artificial-intelligence researchers?*); critical reading (e.g. *What is the article trying to prove?*).

The results of the reading comprehension test showed a wide variation in scores, suggesting that while the best students could be compared to native speakers in terms of reading proficiency, the weak students were well below the intermediate level.

## **Procedures**

The eleven proficient readers were paired with the non-proficient ones.

The task for the non-proficient student was to select a foreign language article and write a review of the article in Portuguese. The proficient student should act as an adviser, helping the other students, the advisee, select the article and solve comprehension problems.

The main task of the adviser was to write a diary, which should be as complete as possible, describing everything that happened in each encounter with the non-proficient student. It should include a detailed account of how each magazine was examined, why some articles were rejected and which criteria were used for the final selection of the article.

In terms of the difficulties found by the advisee in trying to understand the selected article, the adviser should 1) make a complete inventory of these difficulties; 2) specify their nature (vocabulary, sentence structure, topic, etc); 3) describe the process used in trying to solve each difficulty, giving as many details as possible.

It was explained to the students that their assignments -either the review written by the advisee or the diary written by the adviser -would be graded individually. It was negotiated with the student advisers that the main criterion for the diary would be completeness; the diaries that provided more details would be given higher grades. The students were also informed that these details were important data for a research project and agreed to produce at least ten typed pages of text for each diary.

The 11 diaries written by the advisers (8 boys and 3 girls) amounted to 115 pages of double-spaced text. In spite of their commitment to write at least 10 pages, two students produced only 3 and 6 pages each. The most productive student was a boy who wrote 17 pages.

## **Results**

The purpose in analyzing the data provided by the diaries is to find out how the adviser helped the advisee. A first look at the data showed that assistance from the adviser occurred in two phases. Initially, both adviser and advisee were involved with selecting the article, which,

although a preliminary phase, seemed to have taken a considerable amount of the time allotted for the task, including visits to the library and browsing through different publications until a decision was taken. In the final phase, they concentrated on the selected text, trying to solve the comprehension problems raised by the passage.

For the first phase, the students seemed to have difficulty in selecting the article. Data from the diaries show that the eleven pairs skimmed through more than 200 articles. An inventory of the reasons why the articles were rejected show that the main grounds were excessive length, lack of interest in the topic, language difficulty, lack of knowledge about the topic, and use of technical jargon. Excessive length seemed to scare the students because they had to perform a detailed reading of the text; which would probably demand more time than they had planned for the task. Language difficulty was felt as a problem both in terms of vocabulary (*many words were not even found in the dictionary*) and syntax (*the sentences were too complex*).

The criteria which weighted most on the selection of the article were

reader's interest in the topic (*we were curious to find out how the device worked, I chose the article on scanners because I wanted to buy one*) and use of accessible language by the author (*The vocabulary was easy, There were few idioms*). Some students were also sensitive to the graphic presentation of the text (*The article had charts and boxes, which helped comprehension*).

The students browsed different sources, including textbooks, academic journals and popular science magazines. Textbooks were all rejected, mainly on the grounds that they were either too long or outdated.

Academic journals were found to be too technical, presenting topics the students were not familiar with. The eleven articles eventually selected, were taken from popular science magazines, with one possible exception (*Datamation*); all the other periodicals are easily found on large newsstands. The main choice was *Byte Magazine*, which was selected by 8 pairs (Other choices were *Amiga Magazine* and *Time Magazine*).

The most important data from the diaries refer to the second phase, when adviser and advisee read the selected articles in detail. These data show that they read from two different perspectives. For the advisee, the passages presented language problems, mainly vocabulary; all they expected from the adviser was help for clarifying the meaning of the unknown words. The advisers, on the other hand, when trying to solve the problems presented by the advisees, did not seem willing to concentrate solely on the language problems but also on the strategies that readers should use to overcome these difficulties with the text.

What follows is an inventory of what these proficient students advised for the non-proficient readers, both in terms of reading strategies and language development.

In terms of reading strategies, the most frequent advice was that advisees should ignore the words they do not know (all quotes are literally translated from the Portuguese):

My advice was that he should not stop at the unknown word, that he should put them on the background, trying to use the ones he knew, considering that it would be tiresome and useless to translate all the words of the

text, since he could understand the whole passage if he got the main ideas (Vinicius).

We found out that not knowing some words in a paragraph does not affect its comprehension (Anne).

The best thing to do is to read the passage and try to get the idea without worrying about the words printed on the page (Klaus).

Our methodology was the following; first we looked at the text in its totality, without dictionaries or annotations. We read each paragraph quickly and then discussed the basic issues (Ruth).

I explained to my advisee that when we meet an unknown word and we see that it is not important in the sentence, we can ignore it. This helps to understand the passage, because there is no interruption for looking up the word in the dictionary, so that reading goes on smoothly (Julian).

I suggested that he stopped looking up words in the dictionary (...) and always tried to read the whole sentence leaving to the end little doubts about vocabulary (Roger).

A related advice was that readers should use context to guess the meaning of

unknown words. Context was used at different levels, from the syntactic information to

the broader discourse level:

I also tried to show that when we do not know the meaning of a word we can guess it by finding out the original word and then the

meaning of the prefix or suffix that was added to it (Vinicius).

We deduced from the sentence that "dot" meant "ponto" (Ruth).

We guessed that "garner" meant "store" (Julian).

Whenever there was a problem, we tried to build comprehension of a word or structure by reading on or rereading what came immediately before the problem (Gabriel).

The use of context to guess meaning left some of the students unsure of the

results: "Coated paper" could mean both "thick paper" and "paper covered with something." We have to check it in the dictionary (Ruth).

Using general context is all right, but there are some exceptions. When a word or phrase is repeated several times in the passage, this is a sign that it is important and it is recommend that we find out its precise meaning (Anne).

In terms of language development the advisers were mainly concerned with

three areas: word formation, vocabulary and noun phrases. In terms of word formation: Try to understand the parts that make up a word, because then we can associate the word with others we already know (Julian).

I tried to show the meaning of the parts of a word so that he could arrive at the total meaning (...). The different meanings of *\_ing*

was one of the problems (Gabriel).

I told him that often we could know the meaning of a word by looking at its ending such as *\_ly, ing, ment* (Gustav).

Vocabulary, which was the most serious problem from the perspective of the advisee, was also regarded as an important issue by the advisers:

Total comprehension of the passage depended almost exclusively on knowledge of vocabulary (Ruth).

Most of the difficulties were related to vocabulary (Anne).

When not treated indirectly through word analysis or guessing from context, vocabulary problems were dealt with in four different ways: 1) translation, 2) dictionary use, 3) explanation, and 4) exemplification.

In the case of translation, the word was simply translated by the adviser.

When the word was looked up in the dictionary, two criteria were mentioned: 1) importance (e.g., the term was felt to be a keyword) and 2) frequency of occurrence.

Some words were not found in the dictionary (e.g., *superpipeline*); others were found but the meaning did not match the context (e.g.,

*dithering*). In such cases, depending on the competence of the adviser, an explanation was offered:

I told him that "flatbed" was like a xerox machine, where the whole page is scanned by the device (Roger).

There were also some cases of exemplification, where the adviser tried to make meaning vivid for the advisee, sometimes including visualization:

*Tiny holes:* that insect was so tiny that it was almost invisible. There was a hole in the middle of the road and the boy fell into it. This hole was big; but the ones in the passage are tiny (Ruth).

Noun phrases were also listed as a serious problem by the advisers. The

inventory included examples such as:

Intel's double-fast CUP's Tightly-packed  
light sensors Standard database management  
system interface

Some of the advisers were admitted unable to solve some of the examples

found in the passages:

The phrase above was one I could not solve. I believe that only a lot of reading and knowledge of the topic can solve it. This case is beyond my proficiency level in English (Vinicius).

I told him I could not give an exact translation of the phrase but only a general idea (Gustav).

Other advisers, however, tried to offer some help in terms of strategies:

This is the opposite of Portuguese. In English the main word [meaning headword] comes at the end. Treat the rest as adjectives and adverbs (Roger).

My advice on this point was to show that the general rule is to regard the last word as a substantive and the ones before it as adjectives. For these adjectives, the best sequence is the one that makes sense. It is common, however, to have different meanings for the same phrase, so that we don't really know what the author meant when he wrote it (Julian).

These quotes reflect the views of the majority of the proficient students but

it should be pointed that they are not unanimous. Out of the eleven students there was at

least one who demonstrated a very conservative view of reading, and concentrated

solely on vocabulary study:

As we worked, it became clear that almost all the advisee's doubts dealt with the meaning of words (Christian).

Christian's diary was just a long list of the unknown words with their

meanings in Portuguese. Apparently he only tried to infer meaning when the word was not in the dictionary:

*Clunkier*: not in the dictionary. From what follows in the text, we can see that it is not a word with a positive meaning. Maybe something bureaucratic, painful, boring.

One student was very succinct in his diary to provide valid data. Apparently

he did not have time to meet with his advisee.

## **Conclusion**

The eleven proficient readers in this study were asked to help other non-proficient readers select an article, help them read the article in detail and write a diary of the experience. The purpose was to find out which views these proficient readers had of reading and reading instruction.

The data were obtained indirectly from the diary entries.

There are two factors in the study which should contribute to the reliability of the results. One is that the subjects were not asked to teach a course in reading; but just to make a single text comprehensible for another student. Long term objectives such as developing reading skills

to be used with different texts were not involved. The other factor was that the students were not directly asked to expose their views on reading and methodology; they were asked to write a diary of their experience. Whatever they express in their diaries was not induced by the investigator and should be regarded as spontaneous output. If they chose to voice their opinions on reading and methodology the views they expressed are probably more authentic than through an instrument such as a questionnaire.

These opinions, which should be genuine, suggest that proficient readers view reading as made up of two components: strategy and language. In terms of reading strategy, they emphasized the importance of unobstructed reading; viewing a process that should flow smoothly. Unknown words should be inferred from context or even ignored if not essential to meaning. In terms of language development, the proficient students demonstrated a diversified approach to attack the problem, including instruction in word formation and noun phrases.

These views are not very different from what is regarded as standard

procedures in ESP. In terms of practice, there is a match between what proficient readers think of reading instruction and what experienced ESP teachers do in class. In terms of theory, the idea suggested by the students that readers process the text selectively is not very different from Goodman's (1972) concept of redundancy and Stanovich's (1980) compensatory hypothesis -two basic principles behind many ESP procedures. The main conclusion of this study, then, is that what ESP teachers do in class is supported not only by its own theoretical background but also by the beliefs of proficient L2 readers. It seems that whenever we question the theoretical background of ESP, we have also to question what proficient readers think of reading, which is a much more difficult task, considering that what they think is what probably made them successful readers.

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