The Role of Vocabulary in ESP Teaching and Learning

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Introduction

It's known to most second language learners that the acquisition of vocabulary is a fundamental and important component in the course of their learning. A good mastery of vocabulary is essential for ESL/ EFL learners, especially for those who learn for specific purposes or expect to operate at an advanced level in English. *'It is wise to direct vocabulary learning to more specialized areas when learners have mastered the 2000------3000 words of general usefulness in English'* (Nation, 2001:187). In order to have easy access to the specialized uses of vocabulary, learners need to learn and be taught judgment about vocabulary and its use such as, different types of vocabulary, which words are worth focusing on and at what time, during class or independent study time, etc. It is useful for both teachers and learners to become aware of these points, which will be discussed in this article. Specifically, I will focus on four parts, namely, types of vocabulary, the type of vocabulary ESP teachers should teach, how ESP teachers select vocabulary to teach, and teaching and learning vocabulary.

1. <u>Types of vocabulary</u>

In teaching and learning vocabulary, it's essential to distinguish between different types of vocabulary because different types of vocabulary need different focus

and treatment or some types of vocabulary will be given priorities and emphases in teaching and learning according to learners' different aims of learning.

1   Spoken and written vocabulary

Although most of the existing literature on vocabulary has grown out of the study of written texts, recent corpus-based investigation of written and spoken vocabulary have enabled us to do more comparative study of spoken and written vocabulary in actual use. They reveal the difference between the vocabulary of written texts and the vocabulary of everyday spoken language. According to Cambridge International Corpus (CIC) written data and spoken data, (Schmitt and McCarthy, 1997:24) the written list is mainly made up of function words, non-lexical, i.e, non-content items, including pronouns, prepositions and conjunctions, while the spoken list seems to embrace some lexical words like ' know, think, well, get and right'. Other differences are: spoken texts seem less 'dense' than most written texts in vocabulary terms, which is characterized in language-in-action texts; repetition and lexical negotiation occur much more often in spoken discourse than in written texts; vague and rather general words are more frequently used in everyday talk than in written texts.

These differences are quite significant when we consider what kinds of vocabulary items are important to teach in writing and in speech respectively. From the comparative study, we now know that ' *spoken language is the main source of exposure to language for communication but written language will always remain a fundamental source of input for language learning.'* (Schmitt and McCarthy, 1997: 38)

2   Core and non-core vocabulary

As the word 'core' suggests, core vocabulary refers to those words that are more central to the language than other words and tend to be the most frequently occurring ones. '*People prefer to use such words because they do have core meaning-potential'* (McCarthy, 1990). They are thought to be more 'core' because it is easy to find an antonym, also they are neutral in formality and usable in a wide variety of situations. Furthermore, an important point is that such words can be used to paraphrase or give definitions of other words. For example, in Task 41, (McCarthy,1990) the following instruction is given:[decide which is the core word in the set of words: slim, slender, thin, emaciated and scrawny and we can easily figure out that 'thin' is the core word.]

In ESP teaching, we may come across subject-specific vocabulary, which is non-core as far as the language as a whole is concerned. '*This is because it is not neutral in field and is associated with a specialized topic.'* (Carter, 1988:172) They are subject-specific core vocabulary, for example, *placebo and dialysis.* Learners with specific or academic purposes may need to acquire them in medical texts and lessons.

3   Discourse structuring vocabulary and procedual vocabulary

In English vocabulary, there exist a number of abstract nouns that have little independent lexical content like *assumption, variety, solution, proposal and factor.* Their main function is to structure discourse, that is, to summarize or encapsulate previously mentioned ideas and link one sentence to the next. These abstract nouns are also called 'anaphoric nouns' and belong to discourse structuring vocabulary. They are quite

commonly used in expository academic prose and in newspaper articles. Therefore, it's important and necessary for second language learners, particularly, those who learn English for academic purposes to be familiar with these words.

Procedual vocabulary is characteristically used to talk about other words, paraphrase them, define them and organize them in communication. As they are commonly used in dictionaries to give definitions, learners may find them useful when learning other words for the accumulation of their vocabulary.

4   Technical, semi-technical and general vocabulary

In terms of teaching vocabulary in ESP, it's most important to make a distinction between the two types of vocabulary: technical and semi-technical because they are of great importance to learners studying English for specific and academic purposes. Dudley-Evans and St John (1998: 83) suggest resolving the overlapping six categories (Baker,1988: 91) into two broad areas:

a). vocabulary that is used in general language but has a higher frequency of occurrence in specific and technical description and discussion.

b). vocabulary that has specialized and restricted meanings in certain disciplines and which may vary in meaning across disciplines.

It's quite clear that the first area would be referred to as semi-technical and the second area would be regarded as technical vocabulary. We can examine the following text to illustrate the difference between them.

We report a double blind, placebo controlled, crossover trial of an angiotensin converting enzyme inhibitor, enalapril, in patients with chronic fluid overload receiving

dialysis. We used a crossover study and carried out procedures within the study according to the standard of the ethics committee of this hospital. Each patient was given either enalapril or placebo in the first period of treatment and the alternative treatment in the second period; the order in which treatment was given was randomized, 13 patients receiving enalapril and 12 placebos first. Randomization was carried out by suppliers of the drug.(Ferguson, G. 2002: course handouts)

The technical vocabulary is quite obvious. The items are: *angiotensin, enzyme inhibitor, enalapril, chronic, dialysis and placebo.*

The semi-technical vocabulary items are as follows: *report, double blind, control, crossover, trial, convert, fluid, overload, receive, study, carry out, procedure, standard period treatment, randomize, randomization, supplier and drug.*

5   Academic vocabulary

So far, there have been several studies that have investigated the vocabulary learners need for academic study. The most useful one is the Academic Word List (Coxhead, 1998), which was compiled from a corpus of 3.5 million running words of written academic text by examining the range and frequency of words outside the first 2000 most frequent occurring words of English, as described in General Service List (GSL) by West. (1953). It contains 570 word families that occur reasonably frequently o a very wide range of academic texts and the list is not restricted to a specific discipline, which means that the words are useful for learners studying humanities, law, science, and commerce. There is a number beside each word indicating the sub list in which it appears and it's quite convenient to look up.

2. Which vocabulary type should the ESP teacher teach?

According to Hutchinson and Waters, (1987) ESP should be seen as an approach to language teaching, which is directed by specific and apparent reasons for learning. Nowadays most of the second language learners who are attending UK or US universities learn English not for general purposes but for specific purposes. Their specific and apparent reason for learning English is for academic purposes and their academic study will involve specialized areas across different disciplines in physical sciences as well as in social sciences. The aim of their vocabulary acquisition is surely academic vocabulary.

1 Rationale

As we can see from above, learners who will do academic study in English must focus on academic vocabulary which is variously known as 'general useful scientific vocabulary' (Barber,1962) and 'semi-technical vocabulary'(Farrell,1990), because they need to exhibit a wide range of academic skills like reading about research papers in their own fields, listening to teachers speak about their work, writing academic papers and presenting oral or written evaluations of methods or results in many cases.

With its importance shown here, academic vocabulary or semi-technical vocabulary should be given priority in teaching by ESP teachers because, according to Dudley-Evans and St John (1998:83), this type of vocabulary is used in general life contexts but has a higher frequency of occurrence in scientific and technical descriptions and discussions. Again, we will examine the above given text. ESP teachers should teach learners general vocabulary that has a higher frequency in a scientific field such as:

. academic: trial, study, standard, ethics ,period and order

. medicine: overload, procedure, chronic, treatment, fluid and drug

. verbs: report, control, convert, receive, give and randomize

  collocations: carry out

2 The issue of teaching technical vocabulary

It is often claimed that it is not the job of the ESP teachers to teach technical vocabulary (Barber,1964; Higgins,1966; Cowan, 1974). In general, we agree it is not but it may be the duty of ESP teachers to teach technical vocabulary in certain circumstances.

a. beyond the duty of ESP teachers

A technical word is one that is recognizably specific to a particular topic, field or discipline. It's likely that they can only be learned and understood by studying the field. Such words are considered to be the responsibility of the subject teachers. Strevens (1973:223) claims '*that learners who know the scientific field may have little difficulty with technical words; but a teacher who doesn't may have a great deal.*' We can examine the examples in the given text. Technical words like *enzyme, dialysis and placebo* are specialized words in the field of medicine, which are quite easy for a student studying medicine but it's a different matter for ESP teachers. There are some other technical words that are quite familiar to learners (even if learners are not studying the specific discipline to which the technical words belong) because the words are widely, even internationally, known. Some very frequently occurring words in computer science, such as *browser, program, log, hypertext* and *internet,* are quite familiar to learners.

b. in need of teachers' guidance

In spite of the claims that teaching technical vocabulary is not the job of ESP teachers, there may be several circumstances in which ESP teachers should offer timely help. Firstly, when learners are reading specialized texts with a large number of unknown technical words which cannot be ignored by learners because of their close connection with the topic being discussed, ESP teachers now need to help the learners to decide which words are worth focusing on. Secondly, when doing ESP exercises exploiting a particular context with certain technical vocabulary, '*it is important that both the teacher and the learners appreciate that this vocabulary is acting as carrier content for an exercise and it is not the real content of the exercise.*' (Dudley-Evans and St John,1998:81). Thirdly, ESP teachers may help learners when learners find it a bit difficult to deal with the general words used as technical words. For instance, *wall* in biology, and *resistance* in electronics. Fourthly, if a technical word is not cognate with the equivalent term in the student's native language, the teacher will have to give some explanations and introductions to the vocabulary to be learned. Fifthly, usually there is a one-to-one relationship between the terms in English and the learners' L1, but sometimes when there is absence of one-to-one explanation, the teacher should check whether learners have fully understood the term and give them guidance in the use of technical dictionaries or such sources. Lastly, it is possible that difficulty with the pronunciation of some technical words could lead to poor memorizing of the words. ESP teachers can be of great help in this respect.

3. Selection of vocabulary for teaching

Preparing the vocabulary component of a language course, teachers should have the basic words to refer to and '*they need to judge whether a particular word*

deserves attention or not' (Nation, Warring, 1997). Given description of word lists suggest that large vocabulary word lists as the major source of vocabulary learning are preferable in the teaching and learning of the English vocabulary.

1 Word lists at an early stage

Word lists mentioned are of great help because they are derived from different corpora developed from millions of words, for example, GSL (West, 1953), UWL (University Word List)(Xue and Nation, 1984) and AWL (Academic Word List) (Coxhead, 1998). They are high utility general academic words profitable to EAP students. The facts about word lists show that they can not only help teachers to select those words worth attention and teaching but also enable learners to have a systematic study of academic words they need for academic purposes.

2 Awareness of criteria in selection

It's a good start to refer to word lists when teachers prepare a vocabulary teaching programme for the learners. However, it is not motivating to utilize the word lists mechanically. Some criteria should be taken into account when words are selected for teaching.

Firstly, the word lists must contain words that are representative of the varieties of words they are intended to reflect. For example, if we are to teach vocabulary of speech, we must first make sure that the word list we select for teaching should be based on the corpora with spoken data which show the representativeness of the words to be taught or learned.

Secondly, the words selected should occur across a range of different text types. The occurrence of a word in a wide range of text types will be beneficial to learners who major in different subject areas for academic purposes.

Thirdly, special concern should be shown to some vocabulary items with multi-units whose meaning are not deducible from the meaning of the individual words. For example, *so far, good morning, all right*, etc. They should be regarded as a whole and included in the teaching list.

3   The use of concordances

The use of concordances in selecting words is a good way to promote vocabulary learning because of several advantages. Learners can meet the vocabulary in real contexts with a variety of aspects of knowing a word including collocates, grammatical patterns, word family members, related meanings and homonyms presented. *'The use of concordances can challenge the learners to actively construct generalizations, note-patterns and exceptions'* (Nation, 2001:111).

4. <u>Teaching and learning vocabulary</u>

Considering the complexity of the vocabulary learning task, it is impossible for the   teachers to give explicit teaching of all vocabulary to learners. Besides, learners can be encouraged to learn how to continue to acquire vocabulary after elemental level of vocabulary teaching. '*This not only makes the learner more responsible for his own learning but also permits greater attention to individual needs'* (Gairns and Redman, 1993:76). Since individual learning of vocabulary will benefit learners, it is necessary for teachers to encourage learners to develop their own vocabulary learning strategies among which guessing strategies, dictionary strategies and memory strategies (Gu and

Johnson,1996) are mainly accepted. Learners can be directed and trained to develop these strategies in their independent study time. The following are some learning and teaching strategies:

1) Contextual guessing

Contextual guesswork means inferring meaning from clues in the context. There are three ways of doing this. Firstly, learners should be explained the theory behind 'guessing', in other words, guess through incidental and intentional reading. Secondly, the proportion of unknown words to be guessed in the text; learners should know 90% of the words in the text. Finally, what can be learned from the context; in other words, learn the part of speech of the word, its collocation and the various forms the word can take.

2) Memorizing

Memory strategies involve relating the word to be retained with some previously learned knowledge------that is facilitating the storage and retrieval of words. As Nattinger (1988) observes *'words in our mental lexicon are tied to each other not only by meaning form and sound but also by sight.'* This said, visualization is a useful aid in fixing words in memory.

3) Affixes learning

Another popular strategy for learners to develop is the knowledge of affixes. In English vocabulary, there is a relatively small group of very useful accessible affixes that can be introduced to learners when learners are at appropriate levels of their language development. For example, low intermediate learners may start with affixes like, --able,--er,--ish, non--, un-- etc. An important point in being independent is to recognize the learner's own style of learning and find their own ways of expanding and organizing their

word stores. Whatever vocabulary strategies are in use, learners must feel these are the right for them. In the meantime, teachers may help the student develop a personal plan that best suits his/her vocabulary learning.

Independent vocabulary learning strategies are absolutely necessary and useful strategies to be developed by learners themselves in spite of some drawbacks. But we cannot ignore the fact that individual learners have different styles of acquiring unfamiliar vocabulary or they are not at the same level of the proficiency in English. Therefore, it is worthwhile for teachers to teach vocabulary explicitly considering these factors. Explicit teaching can be carried out through teacher instruction or classroom activities. We should pay much attention to the two operative points when preparing teaching and classroom activities:

4) Repetition and recycling a word:

Because there is such a lot to learn about a word, one meeting is not at all sufficient. Following Richards' 'knowing a word statement' (1976), knowing a word covers widely, which includes its occurrence, spelling, derivation, appropriateness in different situations and word associations. Only by meeting it repeatedly can learners develop a full understanding of its use and meaning.

 5) Relating the word in reality:

The use of visual images in the classroom is highly appreciated in vocabulary teaching '*because it gives some idea that it is easier to conjure up a mental image of a concrete item than an abstract one*' (Gairns and Redman,1993). It is better to try to imagine the new words by using wall charts, flashcards and pictures.

With everything considered, '*the most effective way for students to increase*

their active vocabulary store is for them to be centrally involved in the learning process' (Jordan, 1997:162). This may be under the direction of a teacher, doing group work with other students, or during independent study time, as we have just discussed.

6) Brainstorming activities

Doing brainstorming activities is another way to learn or accumulate learner's vocabulary. It generally refers to brainstorming associations that a word has and then diagramming the results. For example, when asked to give words learners thought of when they heard the word 'bank', most learners would generate a number of words and phrases: money, account, deposit, accountant, invest, loan, debit, counter, credit card, book-keeping etc.

Then they can cluster these words together that they think go together.

Conclusion

Having discussed the five parts of vocabulary teaching and learning, we may conclude that the teaching and learning of vocabulary, although it is only one sub-goal of a range of goals that is important in second language learning, plays a key role in the overall structure of the language teaching program because of its basic functions in the language components. It is highly important for learners, especially learners with specific or academic purposes to make distinctions between all types of the English vocabulary and it is also important for ESP teachers to make the best selection of the types of vocabulary to be taught with the semi-technical vocabulary prior to other types in teaching. To some extent, ESP teachers may pay less attention to technical vocabulary, in that they are so technical in a particular field or a discipline. It is encouraging for a learner to be independent of acquiring in his/her second language learning as the most

appropriate way in learning can usually bring best result. To sum up, every possible means should be tried to comply with vocabulary development in second language teaching and learning.

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