

The Role of Vocabulary for ESP

The Role of Vocabulary in English for Specific Purposes (ESP) Teaching and Learning: *Considerations for Asia University*

Mikio Brooks, *Asia University*

Abstract

The mastery of English language vocabulary is vital for both ESL and EFL learners along with those who are aiming to learn English for Specific Purposes (ESP). This paper introduces varying types and categorizations of vocabulary as means to raise awareness of the role of vocabulary in ESP teaching. It then explores which types of vocabulary should be taught and how an ESP teacher can facilitate the learning process. The paper concludes by providing suggestions and specific considerations and in how to deal with vocabulary within both EFL and ESP contexts at Asia University.

Introduction

Most second language learners are aware 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 are advanced learners of English for specific purposes. Paul Nation describes how learners should deal with specific vocabulary by stating, “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 overcome the challenges of specialized usage of vocabulary, learners need to be taught and/or learn about the different types of vocabulary, its usage, and specific

strategies that will help them acquire vocabulary. Simultaneously, teachers also need to be aware of the kinds of vocabulary words, which words are worth focusing on. Should these important words be dealt with during a class or within a learner's independent study time? This directly relates to this relates to what teaching content and classroom activities the instructor must prepare for the learners. The paper will explore four areas, namely, types of vocabulary, the type of vocabulary ESP teachers should teach, how ESP teachers should select vocabulary to teach, and features of teaching and learning of vocabulary. The paper will also present several aspects to consider in the context of both ESP and non-ESP vocabulary and their usage in EFL teaching at Asia University.

Types of Vocabulary

In teaching and learning vocabulary, it is essential to distinguish between different types of vocabulary because varying types of vocabulary need different focus and treatment. Depending on the learners' aims and course content some types of vocabulary will be given priority and more emphasis in teaching and learning than others. The following section will explore the varying sub-types of vocabulary.

Spoken and Written Vocabulary

Although most of the existing literature on vocabulary has grown out of the study of written texts, recent corpus-based investigations of written and spoken vocabulary have enabled us to comparatively study 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), (Schmitt and McCarthy,

1997: 24) the written data is mainly made up of lexical/ , non-lexical words, 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*. In spoken CIC data, spoken texts are less dense than most written texts in terms of vocabulary. This can be noticeable in language-in-action dialogue texts with repetition and lexical negotiation occurring much more often in spoken discourse than in written texts. Spoken texts tend to be vague and general words are more frequently used in everyday speech than in written texts.

These differences are significant when we consider what kinds of vocabulary items are important to teach in both writing and speech. From the comparative study, we can deduce that spoken language is the central source of the contact to communicative language but written language continues to be a fundamental source for input (Schmitt and McCarthy, 1997:38).

Core and Non-core vocabulary

As the word ‘core’ suggests, core vocabulary refers to those words that occur frequently and are more central to the language than other words. According to McCarthy (1990), people favor using such words because they have core meaning-potential. These words are thought to be ‘core’ because they are easy to find an antonym for. In addition, they are neutral in formality and usable in a wide variety of situations. Furthermore, these core 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”. Given the characteristics of a ‘core’ word, we can easily see that ‘thin’ is the core word.

In ESP teaching, we also come across subject-specific vocabulary, which is non-core as far as the language as a whole is concerned. Carter determined that subject-specific vocabulary should be considered non-core because of its lack of neutrality and association with a specialized topic (Carter, 1988:172). Learners with specific or academic purposes may need to acquire them in medical texts and lessons may need to learn subject-specific core vocabulary, e.g., *placebo and dialysis*. However, other learners unrelated to the specific field may not necessarily need to learn these words.

Discourse Structuring Vocabulary and Procedural Vocabulary

The English language possesses a number of abstract nouns that have little independent lexical content, such as *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 is important and necessary for second language learners, particularly those who learn English for academic purposes to be familiar with these words.

Procedural vocabulary is characteristically used to explain and make sense of more complicated words, paraphrase them, define them and organize them during communication. They are commonly used in dictionaries to give definitions so learners may find them useful when learning other words when building their vocabulary.

Technical, Semi-Technical and General Vocabulary

In terms of teaching vocabulary in ESP contexts, it is important to make a distinction between two categories of vocabulary: technical and

The Role of Vocabulary for ESP

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 overlapping categories (Baker, 1988:91) into two broader groupings:

- a). vocabulary that is used in general language but has a higher frequency of occurrence in specific and technical descriptions and discussions.
- b). vocabulary that has specialized and restricted meanings in certain disciplines and which may vary in meaning across disciplines.

The first group should be referred to as semi-technical vocabulary and the second area would be regarded as technical vocabulary. We can examine the following text about a pharmaceutical experiment to illustrate the difference between the two:

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 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)

The technical vocabulary items are as follows: *angiotensin, enzyme, inhibitor, enalapril, chronic, dialysis, and placebo.*

The semi-technical vocabulary items are as follows: *report, double*

The Role of Vocabulary for ESP

blind, control, crossover, trial, convert, fluid, overload, receive, study, carry out, procedure, standard period treatment, randomize, randomization, supplier and drug.

Academic Vocabulary

So far, there have been several studies that have investigated the vocabulary that learners need for academic study. The most widely used and recognized one is the Academic Word List (Coxhead, 1998), which was compiled from a corpus of 3.5 million running words of the written academic text by examining the range of frequency of words outside the first 2000 most frequent words of English, as described in the General Service List (GSL) by West (1953). It contains 570 word families that occur frequently in a wide range of academic texts and from a wide range of disciplines, which means that the words are useful for learners studying humanities, law, science, and commerce. A number beside each word indicates which sub-list it appears in, making it convenient for both teachers and students to use.

Which Vocabulary Types Should ESP Instructors Teach?

According to Hutchinson and Waters, (1987) ESP should be seen as an approach to language teaching directed by specific and apparent reasons for learning. Nowadays, many second language learners attending UK or US universities learn English not only for general purposes but for more specific uses. Students who want to study at a university in an English-speaking country will be learning English for academic purposes and their academic study will usually involve specialized areas across different disciplines in physical sciences as well as in social sciences. The aim of their vocabulary acquisition will be to build academic vocabulary.

Rationale for Learning Academic Vocabulary

Learners who will attend an academic study program in English must focus on academic vocabulary which is variously known as ‘general useful scientific vocabulary’ ((Barber, 1962) cited in Nation (2001)) and ‘semi-technical vocabulary’ (Farrell, 1990), because they need to exhibit a wide range of academic skills like reading research in a specific academic field, listening to teachers lecture, writing academic papers and discussing or presenting their own ideas or research.

With its importance, both academic vocabulary and 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 also has a higher frequency of occurrence in scientific and technical descriptions and discussions. Examination of the above given text shows that a potential ESP teacher must 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*

Teaching Technical Vocabulary

Some EFL and ESL teachers may sometimes assert that it is not their responsibility to teach technical vocabulary (Barber, 1964: Higgins, 1966 & Cowan, 1974). This may also apply to ESP teachers who may or may not have the technical expertise in the subject matter they are teaching. However, under

certain circumstances, and as the only qualified instructor, it may be the duty of an ESP teacher to teach technical vocabulary to assist in the learner's process of acquisition.

What is Beyond the Duty of the ESP Teacher?

To what extent does an ESP teacher need to incorporate technical vocabulary into a syllabus or lesson? A technical word is one that is recognizably specific to a particular topic, field or discipline. It is likely that they can only be fully learned and understood by studying the field. Such words are usually considered to be the responsibility of subject teachers. In some cases, although learners who are in a specific scientific field will have no problem with technical words, a language teacher may in fact, have great difficulty with them (Stevens, 1973: 223). We can imagine 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. Additionally, there are 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 commonly occurring words in computer science, such as *browser*, *program*, *log*, *hypertext* and *Internet*, are quite familiar to learners. However, terminology such as *enalapril* or *angiotensin* can be beyond the ESP teacher. When dealing with technical words, the teacher will need to consider whether to integrate or skip these words depending on the needs and aims of the learners.

When is Teacher Guidance Necessary?

While the topic of ESP teachers and their duty to teach technical

The Role of Vocabulary for ESP

vocabulary is a contentious one, there may be several circumstances in which ESP teachers should offer timely help. One case is 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. In these instances ESP teachers need to help the learners decide which words are worth focusing on. Secondly, when doing ESP exercises it is effective to exploit a particular context with certain technical vocabulary. Dudley-Evans and St. John maintain, “[it] is important that both the teacher and the learners appreciate that this vocabulary is acting as a carrier of content for an exercise and it is not the real content of the exercise” (Dudley-Evans and St John, 1998:81). This can help learners focus on the material more and not merely the vocabulary. Thirdly, ESP teachers may help learners when they find it a bit difficult to understand general words used as technical words. For instance, *wall* in biology, and *resistance* in electronics. Fourthly, if a technical word is not used in the same manner as 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 a 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 sources. Finally, it is possible that difficulty with the pronunciation of some technical words could lead to poor memorizing of the words. ESP teachers can assist learners by helping them improve general pronunciation, raising awareness of syllables in words, and reading in the International Phonetic Alphabet form.

Selecting the Appropriate Vocabulary for Teaching

In preparing the vocabulary component of a language course, it is vital that teachers should have the basic words to refer to and they should evaluate whether a specific word is important enough to be given attention to. The use of word lists as the main source of vocabulary learning is favorable in the teaching and learning of the English vocabulary (Nation, 2001).

Word Lists at an Early Stage

Pre-compiled word lists 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 contain general academic words useful to ESP students. The benefits of utilizing word lists are that they not only help teachers to select words worth focusing on and teaching but also enable learners to have a systematic study of academic words they need for academic or specific purposes.

Awareness of Criteria in Selection

Experts recommend that teachers refer to word lists when teachers prepare a vocabulary teaching program. However, mechanically making use of word lists in class may be demotivating to some learners. Some criteria should be taken in account to select words that are appropriate for the context and students.

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 is based on a corpora of spoken data which represent the words to be learned.

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 or specific purposes.

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

The Use of Concordance

Concordance is one method of promoting vocabulary learning that has some specific advantages for learners. Learners can encounter the vocabulary in real contexts with a variety of aspects of, familiarizing themselves with a word including collocates, grammatical patterns, word family members, related meanings and homonyms presented. Nation (2001) maintains that learners have the opportunity to formulate generalizations, not-patterns, and exceptions arise when the use of concordances are employed in the learning process.

Teaching and Learning Vocabulary

Considering the complexity of the task of vocabulary learning, it is an unreasonable expectation for the teacher to explicitly teach all facets of vocabulary and an entire set of words of a list to learners. Instead, learners can be encouraged to learn how to continue to acquire vocabulary on their own after developing a fundamental level of vocabulary. Gairns and Redman (1993) assert that individual learning of vocabulary not only gives more responsibility toward a student's own learning, but can also help focus on

individual learner needs (pg.76). Since individual learning of vocabulary can be beneficial to learners, it is recommended that teachers encourage learners to develop their own vocabulary learning strategies which consist of guessing, dictionary, and memory strategies (Gu and Johnson, 1996). Learners can be directed and trained to develop these strategies in their independent study time. The following are some vocabulary learning and teaching strategies that can be applied:

Contextual Guessing

Contextual guesswork means inferring meaning from the clues in the context. There are three ways of achieving this. Firstly, learners should have strategies behind ‘guessing’, in other words, methods through which they can guess through incidental and intentional reading presented and explained to them. Secondly, the proportion of unknown words to be guessed in a text should not exceed 10%. Teachers should if possible present materials that are comprehensible and/or help guide learners towards texts that are over 90% comprehensible to the individual. Finally, learners should be taught and practice skills to help identify what can be learned from the context, develop the ability to identify parts of speech, become aware of collocations, and the various forms that a word can take.

Memorizing

Memory strategies involve relating the word to be retained with some previously learned knowledge—that is facilitating the storage and retrieval of words. Visualization is one particularly powerful memorization strategy. 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.”

Learning of Affixes

Another popular strategy that learners can work to develop is the knowledge of affixes (Nation 1990; Bauer & Nation 1993) . Within English vocabulary, a relatively small group of affixes that are useful and accessible 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, un--, --tion, etc. An important aspect in helping the learner become independent is for the learner to recognize his/ her own style of learning and to find their own ways of expanding and organizing their word stores. Whatever vocabulary strategies are in use, learners must find the right ones 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 both necessary and useful and should be incorporated in teaching. Nonetheless, we should be aware that individual learners have different styles of acquiring unfamiliar vocabulary or they are not all at the same level of proficiency in English. Therefore, it is sensible for teachers to teach vocabulary explicitly considering these factors. Explicit teaching can be carried out through teacher instruction or classroom activities. A teacher should pay attention to both proficiencies and learning styles when preparing their teaching and classroom activities:

Repetition and Recycling Words

Due to the fact that there are many aspects to learn about a word, a single encounter with it is makes it highly improbable it will be learned or retained. Following Richard's 'knowing a word statement' (1976), and Nation's (2001) concept of receptive and productive knowledge of words as a

continuum, knowing a word covers the recognition of occurrence, spelling, derivation, appropriateness in different situations and word associations. Only through multiple encounters with the word, can a learner develop a full understand of its use and meaning.

Relating the Word to Reality

The use of visual images in the classroom is highly recommended in vocabulary teaching because it helps create concrete items in a person's mind rather than thinking about an abstract word (Gairns and Redman, 1993). Using teaching tools such as wall charts, flashcards, and pictures can help learners to imagine the words visually.

According to Jordan (1997), "the most effective way for students to increase their active vocabulary store is for them to be centrally involved in the learning process (pg. 162)." This may be under the direction of a teacher, doing group work with other students, or during independent study, as previously discussed.

Brainstorming Activities

Doing brainstorming activities is another way to help increase a learner's vocabulary. This process generally refers to brainstorming associations that a word has with others words and then diagramming the results. For example, when asked to give words learners thought of when they hear the word 'bank', most learners would generate a number of words and phrases: money, invest, loan, deposit, debit, account, etc. Subsequently, learners can cluster these words together in ways they think are linked and receive feedback from peers or the teacher.

Considerations for ESP and Non-ESP Vocabulary Teaching at Asia University

Currently, there are a range of EFL and ESL courses at Asia University that focus on disciplines of Business English, Business Hospitality (Travel and Tourism), and International Relations. One could argue, based on Hutchinson and Water's (1987) notion that ESP is rooted in tailoring a course to meet the learners' needs that at this institution, these courses are more specific in their goals and objectives. On the other hand, the Freshman English program and to some extent, the Sophomore-level English courses represent integrated four-skills language courses that are more generalized in their objectives. The content taught, skills focused on, methods and approaches to instruction, pace of instruction of both ESP and non-ESP courses will vary due to departmental guidelines, syllabi, textbooks, student language proficiencies, student interests, individual teacher preferences and teaching styles, and motivation. The goal of this section is to highlight aspects of vocabulary learning and teaching to consider for ESP and non-ESP courses at Asia University. The suggestions are based on the author's experience of teaching at Asia University and research on ESP.

- Though vocabulary learning is one component of language learning, teachers should help students realize acquiring a larger vocabulary is an important aspect of their learning and should be considered over the long-term. Simultaneously, teachers should also provide students with strategies to learn and utilize vocabulary so they have the tools to independently acquire vocabulary. Furthermore, if possible find ways to assist students learn vocabulary not course by course but over a series of courses or over

The Role of Vocabulary for ESP

a span of several years (e.g. coordinate programs so that students learn the first 500 words the first year, and then learn the next 500 words the following year.)

- Level students into classes based on proficiency groupings. Once students are enrolled into a class, try to further assess vocabulary development individually, or as a class to help determine which words lists, or words to focus on in relation to focus or objectives of the course.
- Focus primarily on the learning of high frequency words in both ESP and non-ESP courses. According to Nation (2001), learning the 2000 most frequent words of English can help approximately cover 90% of conversation types of text and approximately 78% of academic texts. Based on needs or goals of a course, introduce semi-technical and technical words.
- Find ways to introduce the learning of academic word lists and other semi-technical words for students who are beyond the 2000 most frequent words and/or specifically need these words for their future aims.
- Ask teachers to realize they do not necessarily have to be experts in the specialist subject areas. As Hutchinson and Waters outlines, ESP teachers only require, “A positive attitude towards the ESP content, a knowledge of fundamental principles of the subject areas, and an awareness of how much they already know.” Rather than becoming a specialist, in essence, they describe it as a role (pg.163). in which the teacher becomes an interested student of the subject matter and can ask intelligent questions about that topic.

Conclusion

Having discussed the four 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 any language teaching program because of its basic functions in the language components. It is important for learners, especially learners with specific or academic purposes to make distinctions between all types of English vocabulary to help achieve their goals. Furthermore, it is vital for teachers to make a careful selection of the types of English vocabulary to be taught to students whether it is for general purposes or for more specific purposes. To some extent, ESP teachers may not need to pay extensive attention to technical vocabulary that is too particular to a certain discipline or field. Moreover, working with high frequency words can be beneficial for both general purpose English and specific goal-oriented English courses. Encouraging and providing learners with the strategies and support to be independent in acquiring a second language should be the goal of not only individual teachers but collectively and ultimately the objective of the institution.

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The Role of Vocabulary for ESP

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