CHAPTER 6

Literature Review- III

Vocabulary
Chapter Six

This chapter gives a literature review of receptive and productive vocabulary and vocabulary teaching methods. This forms the theoretical base for the specific problem identified in the beginning of the study, namely the receptive–productive gap, with reference to vocabulary, which was identified as the most prominent language deficiency for the population in the study.

The ESP framework is still considered the most popular model for curriculum development for learners belonging to special disciplines who require the target language for academic or occupational purposes. Occupational requirements demand the development of proficiency in certain communicative tasks and so an appropriate methodology is adopted according to the needs of the learner. For the present population of management students who need English for business, certain tasks pertaining to business communication were identified from the needs analysis. Task proficiency was sought to be achieved through communicative language teaching methodology. A task-based model for language teaching was considered suitable as it catered to general productive language improvement. These two models for language teaching adopt the communicative approach which avoids any kind of focus on form and rapidly achieves a general improvement in language ability through interactions during task performance.

6.1 The scope of the partial intervention

However, in the case of the population in question, certain specific language deficiencies were identified on the basis of the needs analysis done with managers and management students. These need to be tackled along with improvement in general productive language skills and
identified communication tasks. The model (See Chapter Five Figure 5.1) illustrates a teaching methodology that combines the **Communicative Approach** with **Focus on Form**. The present study seeks to apply the model in a partial intervention for a representative sample of the population. The researcher seeks to measure the impact of the traditional task-based methodology (independent variable) and the new methodology (independent variable) suggested in the model, on the vocabulary proficiency levels (dependent variable) of two homogeneous groups. Productive vocabulary has been identified as the biggest language deficiency of management students through the needs analysis. By carrying out a partial intervention, the researcher seeks to arrive at some conclusions about the effectiveness of each methodology in the area of receptive-productive vocabulary gap reduction. As this is a partial intervention, only one of the objectives of the study will be measured, namely improvement in productive skills in the identified area of language deficiency. The other two objectives of improvement in proficiency in communication tasks and general language proficiency have not been measured as previous research shows that the ESP model and the task-based model have already proved successful in the achievement of these objectives. Thus the scope of this experimental study is restricted to the measurement of improvement in productive vocabulary.

### 6.2 Vocabulary Teaching: theoretical underpinnings

The period between 1948 and 1970 was a limbo for vocabulary as an aspect of teaching in its own right. Among the first to bring up the area of vocabulary in language teaching was Wilkins in the early 70s. Wilkins’ work was significant because he wanted to bring in the insights of lexical semantics into vocabulary teaching and this paved the way for a spurt of research into vocabulary in the 70s and 80s. Nattinger (1988) discusses the various trends among researchers in this field. Twaddell in the early ’70s was the first to introduce the ideas of vocabulary in
context which were then taken up in greater detail in the ’80s by Jenkins and Nagy. In 1978 Judd pointed out the importance of natural linguistic contexts. He believed that words taught in isolation are generally not retained. The full meaning of words can only come from encountering them in a rich linguistic context. Nilsen (in Nattinger1988) however felt that the paradigmatic approach (examining vocabulary out of context) is a prerequisite to the syntagmatic approach(vocabulary in context).

6.2.1 Receptive and productive vocabulary

The terms ‘receptive’ and ‘productive’ as they appear in the area of language skills and vocabulary, have often been used interchangeably with the terms ‘passive’ and ‘active’ respectively. Crow (1986) differentiates between the two concepts in the following manner:

   Productive knowledge of a word is traditionally defined as what one needs to know about a word in order to use it while speaking or writing (productive channels); receptive knowledge is what one needs to know in order to understand a word while reading or listening (receptive channels).

He, however, objects to the substitution of these terms with ‘passive’ and ‘active’ because they misrepresent the processes involved. People may be misled into believing that individuals play a passive role when reading or listening. In fact, “…participants are very actively involved during both productive and receptive language performance.”

Webb (2008) defines another aspect of this dichotomy through his explanation that knowing students’ receptive vocabulary size provides teachers with a gauge as to whether those students will be able to comprehend a text or a listening task, whereas knowing their productive
vocabulary size provides some indication as to the degree to which students will be able to speak or write.

**Characteristics of receptive and productive vocabulary**

Having defined the terms, the next step is to thoroughly understand the different requirements for productive and receptive control of vocabulary items. As we can infer from Chapter Two of this study, a much larger body of knowledge is required for productive skills when compared with receptive skills. Crow (1986) analyses in detail, the specific areas where these differences show up:

- **Connotations and Denotations**

A detailed knowledge of connotative and denotative meanings of words, as well as a full control over the web of associations inherent in each word is necessary for productive channels whereas comprehension does not require such precision. For example, one needs to know the precise difference between ‘massacre’ and ‘assassinate’ in order to use them productively whereas a general notion of their association with ‘kill’ is enough for receptive vocabulary activity.

- **Syntactic constraints:**

Productive use demands the knowledge of the proper syntactic environment (as in the use of infinitives and gerunds) whereas the syntactic environment is given in comprehension situations.
• Co-occurrence Restrictions.

Every language has well defined co-occurrence restrictions on words. For example ‘noise’ can use the adjective ‘big’ but not ‘tall’. Users of productive channels require this knowledge but since these are already provided to the listener or reader the knowledge is superfluous.

• Derivations:

Producers of language need to be adept at deriving verbs from nouns when needed while receptive skills only call for a recognition of derivations as they come across them.

• Register

A speaker or writer must know the appropriate use of words and phrases in different social situations while comprehension needs only a judgement of the acceptability of the input whether in speech or in writing, in a particular social setting.

Having detailed these examples to distinguish between the requirements of productive and receptive skills, Crow comes to the following conclusion:

A vast body of information is required for productive control of vocabulary items, while a much smaller body of knowledge is required for general receptive control. Acquiring productive control over a large number of words in a foreign language requires considerable time and exposure.

In the context of the present population the problem resides in the area of productive vocabulary and factors like time and exposure are naturally limited. It is left to the researcher to find an appropriate solution to the problem given the limitations faced by the population.
Prabhu (1987) in a discussion on receptive and productive skills felt that both comprehension and production contributed to the development of the internal system. Comprehension brings about the formation of new structures as well as the revision and extension of old ones. He explained the development of receptive and productive skills as follows: “Comprehension precedes production because abstract structures need to be formed relatively firmly before they are deployed in production.”

However, the researcher tends to be in agreement with Webb’s (2008) observation which deflects slightly from Prabhu’s point of view. He asserts that receptive learning is more likely to lead to larger gains in receptive knowledge whereas productive learning can be effectively used to increase productive knowledge. (also in Griffin and Harley, Mondria & Wiersma; Stoddard; Waring).

**Comparative sizes of receptive–productive vocabulary**

Webb (2008) carried out an experimental study to measure the receptive and productive vocabulary sizes of EFL students in a University in Japan. The results showed that the receptive vocabulary size of L2 learners was much larger than their productive vocabulary size. This is in agreement with Morgan and Oberdeck’s 1930 (in Webb 2008) results which suggest that with low frequency words, receptive knowledge increases faster than productive knowledge, and with high frequency words, productive knowledge increases faster than receptive, but never to the point that it equals receptive knowledge. The same results have been obtained from Webb which establishes further that learners who have a larger receptive vocabulary are likely to know more of those words productively than learners who have a smaller receptive vocabulary. For the population in the study, the conclusions reached in the pilot study were somewhat different at
least in the more general area of receptive and productive skills. The results indicated that a high level of receptive skills were unmatched with a correspondingly high level in productive skills (See Chapter Two).

Laufer et al (1998) examined three types of vocabulary—receptive, controlled productive and free productive and came to some tentative conclusions that confirmed the general perceptions that learners with larger receptive vocabularies also had larger controlled-productive vocabularies and slightly better free-productive vocabularies. However, further analysis also led them to the conclusion that the development of controlled-productive and free-productive was less predictable than the development of receptive vocabulary. Their observation was that frequent words are more likely to pass from passive to active lexicon, because they are indispensable for communication, and must therefore be activated or, in learning terms, practised. Such practice may induce long term retention. “Possibly both limited exposure and lack of practice hinder the successful passage of words from passive to active vocabulary” The methodology used for the present study seeks to find a solution to these difficulties.

**The receptive–productive continuum: what constitutes word knowledge**

Early research pointed to word knowledge as an all-or–nothing phenomenon. You either knew a word or you didn’t know it. However, as research progressed, lexical knowledge was seen as a taxonomy of components.

Laufer et al (1998) have discussed the views of many researchers in this respect. Nation believed that knowing a word meant knowing its form, function, grammatical patterns, meaning and associations. Henriksen split the passive-active continuum into three parts: (a) a partial-precise knowledge continuum, where levels of knowledge equal different levels of word comprehension;
(b) a depth of knowledge continuum, which includes knowledge of the word's syntagmatic and paradigmatic relations with other words; and (c) a receptive-productive continuum. The first two are knowledge-related; the third, a control continuum, reflects how well the learner can access and use a word.

6.3 Measurement of word knowledge

In the late 1990s the emphasis shifted from measuring the sizes of lexicon to measuring the degree of lexical knowledge of a word. “To study the incremental acquisition of individual words, one must be able to measure the degree or depth of knowledge for each of those words.” Schmidt (1998). He discusses the Developmental Approach and the Dimensions Approach which were the popularly accepted methods for measuring vocabulary depth. The Developmental Approach uses scales like Paribhakt’s Vocabulary Knowledge Scale— which has 5 levels:

1. Word is not familiar
2. Familiar but meaning is unknown
3. Translation is given
4. Used with semantic appropriateness in a sentence
5. Semantic appropriateness and grammatical accuracy

The scale has been criticized because it does not specifically differentiate between receptive and productive although one can assume that it is based on the concept of the receptive-productive continuum.

The Dimensions Approach describes the level of mastery of the various component types of word knowledge. Nation has proposed eight word categories, each of which has receptive and productive aspects:
1. Spoken form of the word
2. Written form
3. Grammatical behavior
4. Collocational behavior
5. Frequency of the word
6. Stylistic register constraints
7. Conceptual meaning
8. Associations the word has with other related words

Schmidt’s longitudinal study was with three students where he tracked word acquisition in the areas of spelling, association, grammatical information and meaning. One important finding of the study was that there was no developmental hierarchy detected in the process of acquisition.

Webb (2007) did a study where knowledge of orthography, association, grammatical functions, syntax, and meaning and form was measured both at receptive and productive levels. Measuring multiple aspects of knowledge could only lead to a more accurate assessment of the extent of incidental vocabulary learning. The present study has also adapted Webb’s test to measure the receptive-productive gap.

6.4 The implications of learning vocabulary from context

Having understood that word knowledge involves ‘depth’ and that it has a number of associated factors to it, it is then easy to see the advantage of learning words within context. One has to gauge the meaning of the word from its context, or from encountering it in several contexts. Brown et al (1989) points out the difficulty of capturing a word meaning in a definition when he
says that “the meaning of a word is dependent on situations and negotiations…,” and it is precisely these negotiations that are facilitated through contextual access of words.

Two seminal studies in the area of learning from context were carried out by Nagy et al (1985) and by Jenkin et al (1984). Both were interested to test the hypothesis that incidental learning from context during free reading is a major mode of vocabulary acquisition and the volume of experience with written language, interacting with reading comprehension is a major determinant of vocabulary growth. The essence of Nagy’s study “has been to demonstrate unmistakeable learning from one or very few exposures to unfamiliar words in natural contexts.” Jenkins et al(1984) arrived at the same conclusions; however, their conclusions were that the growth in vocabulary was not up to expectation and, taking into consideration that they had manipulated the input material by facilitating multiple exposures to the words, as well as by using context rich environments, it did not provide convincing evidence that learning words from context through natural reading accounted for the large growth in vocabulary that took place outside formal vocabulary learning situations.

Two important conclusions can be drawn from these studies:

One is that L2 learners can acquire new vocabulary ‘incidentally’ in the context of reading, apparently without any intention to learn them. Krashen (1987) talks of comprehensible input as being necessary for vocabulary acquisition as well as for language acquisition in general. Research also points to the reciprocal nature of reading comprehension and vocabulary knowledge where reading acts as a source for vocabulary, and, at the same time depends on vocabulary knowledge for comprehension. Thus reading contexts are fertile ground for
vocabulary acquisition. “It has been recognised that reading tasks contribute to multiple aspects of vocabulary knowledge” Pigada et al (2006).

The second conclusion is that incidental learning of word meaning from natural context progresses naturally and in small increments. Nagy, Herman and Anderson talk of complete learning of a word’s meaning as a gradual process, extending over years of time in which the word is encountered repeatedly in context.

6.4.1 Word exposure

Studies in the area of learning words within context led to further experimentation with tracking the number of exposures to a word in context which would lead to acquisition. In a literature review on the number of exposures necessary Webb (2007) discusses varying results obtained by different researchers. Saragi et al suggest that 10 exposures produce results, Horst et al put the number at 8; Rott reports that 6 is enough and Waring and Takaki go up to 20. Nation and Wang had carried out similar experiments and came to the conclusion that there is no set number of repetitions that will ensure learning. There are many other variables that could have an effect on the number of repetitions necessary for acquisition. Two important variables pointed out are (1) meaningfulness of context and (2) degree of similarity between the forms of L1 and L2. The findings from Webb’s (2007) study indicate that if learners meet unknown words a minimum of ten times during reading, sizeable vocabulary growth may occur. Webb further refined his study in 2008 to control for more factors like meaningfulness of context and partial gains in acquisition, and conducted a four-way experiment to compare acquisition rates at different numbers of exposure. To prevent contamination from any previous knowledge that the participant could have had of the words chosen, the experiment used nonsense words. He also
measured the receptive-productive gap, and an important finding from this study was that as word frequency decreased, productive gains also decreased when compared to receptive gains.

Having discussed the different aspects of incidental learning from context, the next question that naturally comes up is whether the advantages of incidental learning could somehow be harnessed and supported by an appropriate teaching methodology that could ensure comprehensive gains in vocabulary in a shorter time span.

6.5 Approaches to vocabulary instruction

Before attempting to understand the different ways of teaching vocabulary, we will attempt to define what a ‘word’ is:

“…a word (also called a base word or a word family) is defined as including the base form (eg. make) and its inflexions and derivatives (eg. makes making, made, maker). Since the meanings of these different forms of the words are closely related, it is assumed that little extra effort is required to learn them.” Read 1988 quoted in Hunt et al(2002).

Hunt et al (2002) talk of three approaches to vocabulary instruction and learning:

- Incidental learning— from extensive reading and listening.
- Explicit instruction—diagnosing words learners need to know, elaborating word knowledge, presenting new words and developing fluency with known words.
- Independent strategy --guessing from context and using the dictionary.

Hunt then lists seven principles which are based on these three approaches:
Incidental learning

• Principle 1

Provide opportunities for incidental learning of vocabulary: Several studies have confirmed the usefulness of reading as a source of vocabulary and the effect of repeated exposures to a word. As many students may not have a reading habit, some class time for silent reading is useful.

Explicit Instruction

• Principle 2

Diagnose which of the 3000 most common words learners need to study –eg Nation’s Vocabulary Level’s Test.

• Principle 3

Provide opportunities for intentional learning of vocabulary: Learners need to see and hear a new word and to revisit the word often.

• Principle 4

Provide opportunities for elaborating word knowledge: teach related grammatical patterns, affixes, common lexical sets, typical associations, as well as how to use the word receptively and productively.
• Principle 5

Provide opportunities for building fluency with known vocabulary: “Fluency building activities recycle already known words in familiar grammatical and organizational patterns so that students can focus on recognizing or using words without hesitation.”

**Independent Strategy Development**

• Principle 6

Experiment with guessing from context.

• Principle 7

Teach the use of dictionaries in the process of learning word meaning.

Nelson (2007) speaks of two ways in which vocabulary can be learnt: indirect vocabulary instruction which includes learning from contexts, both oral and written, and direct instruction which includes explicit teaching methods like dictionary searches and teacher-centred instruction.

Webb (2008) has stated that explicit vocabulary learning might lead to deeper knowledge of meaning and greater gains in productive knowledge than what might typically occur with incidental vocabulary learning. However, it has been widely acknowledged that definition-based vocabulary instruction like the ones found in dictionaries are not effective because dictionary entries are abstract and de-contextualized and it is ineffective as a teaching methodology. The meaning of words is mediated by the many contexts in which it is used and this cannot be captured by explicit vocabulary instruction.
Another difficulty of explicit teaching pointed out in Nagy et al’s (1985) study is that very few words of a student’s overall vocabulary can be accounted for through sources of explicit teaching. His experiment was to locate the major source and procedure of vocabulary acquisition. Jenkins’ study along the same lines did show some gains from learning words from context but not as much as was expected. A number of exposures in context to words in context rich environments did not show significant vocabulary intake unless some consciousness raising activity was performed like prior exposure to target words or questions on the reading comprehension which were directly related to target words. Nation (2002) dismisses as insignificant the amount of vocabulary learning that happens through reading especially when the subject content is familiar to the reader. This acts as a compensating strategy and specific meanings for unknown words are not learnt in these situations Nation recommends Swain’s Output Method (See Chapter Three) for vocabulary learning also. He suggests retelling tasks so that vocabulary from the written text was produced even when the text was not consulted. He also suggests exercises that will take the word out of context for better learning. “The more the vocabulary is observed or used in contexts which differ from its occurrence in the written input, the better it is learnt”

6.5.1 Vocabulary learning through consciousness raising techniques in an ESP framework

The demands on the learner in an ESP course are greater than those placed on a general English student. In a task-based syllabus for a general English student, the task is only used as a means to create enough authentic interaction within which language proficiency grows. As far as the ESP student is concerned, the tasks are ends in themselves and the objective of task proficiency may cloud other objectives if noticing methods are not adopted to improve specific areas of language deficiency. Akbari (2009) talks about a study among English for Medical Purposes (EMP)
students enrolled in a medical course in an Asian context. He suggests a coordination between the content teachers and language teachers to see that specialized vocabulary pertaining to the discipline is revisited purposefully even in non-language classes in order to facilitate the language learning process.

6.6 Conclusion

It is now left to the researcher to find ways to use consciousness raising techniques that tackle words within contexts. Some examples have been suggested by McKeown (1985)—A teacher could communicate important concepts of word meaning acquisition from context by demonstrating the use of context to derive contextual constraints, test possible meanings, compile information about the word’s meaning and finally interpret subsequent contexts. What remains to be done is to devise methods by which vocabulary can be brought to the notice of students, to be used productively within and outside the given contexts, without disturbing the basic task-based framework that supports student centred interactive learning styles.