

# **CHAPTER ONE**

## **INTRODUCTION**

## 1.1 Overview

After decades of neglect, second language vocabulary acquisition has begun to receive increasing attention in recent years (Al-Hadlaq, 2003). Given the current focus of vocabulary study, many nonspecialists might be surprised to learn that in past years, this area of teaching was often neglected, because it was thought that vocabulary could simply be left to take care of itself (Decarrico, 2001). This low status of vocabulary study and vocabulary teaching was in large part due to language teaching approaches based on American linguistic theorists that had been dominant throughout the 1940s, 1950s, and 1960s. Now the picture has dramatically changed due to the developments in computer- aided research and psycholinguistic studies which provide insights concerning mental processes involved in vocabulary learning (Decarrico, 2001).

Vocabulary learning is considered central to language acquisition, whether the language is first, second or foreign language (Decarrico, 2001; Krashen, 1989; Mobarge, 1997; Poullisse & Schils, 1995). There is now general agreement among vocabulary specialists that lexical competence is the very heart of communicative competence, the ability to communicate successfully and appropriately (Coady & Huckin, 1997). Vocabulary knowledge seems to be the most clearly identifiable subcomponent of the ability to read (Grabe & Stoller, 1997; Laufer, 1997; Nation & Coady, 1988). Laufer (1997) has come to the conclusion that “the threshold for reading comprehension is, to a large extent lexical” (p. 21). Having a vast store of vocabulary knowledge has also been found to correlate well with writing quality (Lee, 2003). It is also one of the important components of fluency in speech and learners themselves associate progress in language learning with an increase in the number of words they know (Krashen, 1989; Grabe & Stoller, 1997; Laufer, 1998).

Linguistic theory has also recognized a more central role for vocabulary in linguistic description. Formal, transformatory generative linguistics, which previously took syntax as the primary focus, now gives more central attention to the lexicon and the way it is formatted, coded and organized. The importance nowadays given to vocabulary could also be reflected in the “lexical approach” in language teaching which is derived from the belief that the building blocks of language learning and communication are not grammar, functions or notions but lexis (Richards & Rodgers, 2001).

The growing interest in the role of vocabulary in language acquisition can be attested by the considerable number of research on vocabulary, flooding into the field of language acquisition, each addressing a particular question regarding vocabulary learning and teaching, for example, what it means to know a word (Nation, 2001; Paribakht & Wesch, 1997; Schmitt, 2008), which words learners need to know (Coady & Huckin, 1997; Nation, 2001), how many exposures are needed to acquire a word (Nation, 2001; Saragi, Nation, & Meister, 1978), what are the most effective strategies to acquire a word (Joe, 1998; Craik & Tulving, 1975), and which tasks can lead to more efficient vocabulary learning (Hulstijn & Laufer, 2001; Rott, William & Cameron, 2002). Yet the best means of achieving good vocabulary isn't clear. Not surprisingly the teachers and learners are still unsure of the best approaches to achieving the goal (Schmitt, 2008).

Given the importance of vocabulary in language acquisition, many learners of a second or foreign language feel concerned with the burden of vocabulary learning and worry about how to tackle the formidable task of learning many thousands of words. The current evidence suggests that it requires between 2000 to 3000 word families to understand spoken English (if 95% of coverage is adequate) or between 6000 to 7000 word families if 98% coverage is needed (Schmitt, 2008). Furthermore, vocabulary learning is not just a matter of quantity or size (number of words to be learned), it also involves knowing a great deal about each item which is often referred to as "depth" or quality of vocabulary knowledge (Schmitt, 2008; Richards, 1976). It includes knowledge of word frequency, its collocations, register, case relations, word associations, semantic structure, syntactic behavior, etc. (Richards, 1976).

Different approaches to teaching and learning vocabulary have been proposed in literature of which "incidental" and "intentional" learning could be named. Hulstijn and Laufer (2001) define intentional vocabulary learning as "the activity aimed at committing lexical information to memory" (p. 11). On the other hand, an incidental learning situation is a situation in which individuals process new information without the intention to commit this information to memory. Worded differently, incidental vocabulary learning refers to "the learning of vocabulary as a by-product of any activity not explicitly geared to lexical learning" (p. 10).

Most scholars seem to agree that except for the first few thousand **words**, vocabulary learning predominantly occurs through extensive reading, with the learner guessing at the

meaning of unknown words (Coady, 1997b; Decarrico, 2001; Huckin & Coady, 1999; Krashen, 1989; Nagy, Herman & Anderson, 1985; Nation, 2001; Nation & Coady, 1988; Paribakht & Wesch, 1997). The two main justifications given for this position are the large number of words in English and the large amount of time needed to deliberately teach vocabulary. Because it takes such a long time to effectively teach a word and because there are so many thousands of words, direct teaching can at best only account for a very very small proportion of native speakers' vocabulary growth (Nagy, 1997; cited in Nation, 2001). Another reason is that vocabulary is a problematic area which does not lend itself well to teaching. Whereas grammar or the phonology of a language are to a great extent closed, finite systems with limited scope and a highly systematic structure; vocabulary is, on the other hand, open-ended and lacks any systematic structure (Mobarge, 1997).

A typical and well-known proponent of incidental vocabulary learning is Krashen (1989), who, in the context of his *input hypothesis*, argues that we acquire vocabulary and spelling through exposure to *comprehensible input*, that is; “by understanding language that is ‘a little beyond’ our current level of competence”( Krashen, 1981, p. 103). In his words, comprehension is at the heart of language acquisition and production is only a sign of second language acquisition that has already taken place (Krashen, 1981, 1989).

Swain ( 1985), by acknowledging the invaluable role *comprehensible input* serves in second language acquisition ( SLA), argues that it is not sufficient for learners of English as a foreign (EFL) or second language (ESL) to fully develop their second/foreign language (L2) proficiency. According to Swain, what these learners need is not only comprehensible input but *comprehensible output*. The construct holds that when learners run into communication difficulties, they try to make their output more coherent, appropriate and precise. The assumption is that this process would contribute to language learning by making learners notice the gap between their interlanguage and language as it is used by native speakers and discover what they can do and cannot do.

Another crucial concept underlying most of the research on incidental vocabulary learning is the *depth of processing framework* proposed by Craik and Lockhart (1972). It holds that “the memory trace can be understood as a byproduct of perceptual analysis and that trace persistence is a positive function of the depth to which the stimulus has been analyzed”(p. 671). Based on

this framework, the deeper the processing of a stimulus is, the traces in memory will be more elaborate, longer lasting and stronger. The hypothesis suggests that the retention of information is determined by the depth to which it is processed rather than the length of time it is held in the primary memory. They have also posited several levels of processing depth. For example processing the semantic features of a lexical item (e.g., meaning) is supposed to occur at a deeper level than its structural features (e.g., orthography). In other words, tasks which require the learners to process the meaning of words lead to better word retention.

One of the main problems associated with the depth of processing hypothesis was the lack of operationalizable definition, based on which tasks could be graded and evaluated in terms of their processing depth and effectiveness. To tackle the problem, Laufer and Hulstijn (2001), suggested the *involvement load hypothesis* as an effective way to operationalize the levels of processing theory. The basic contention of the hypothesis is that “retention of unfamiliar words is, generally, conditional upon the degree of involvement in processing these words” (Hulstijn & Laufer, 2001; p. 545). According to the hypothesis, *task induced involvement* consists of three key components of *need*, *search*, and *evaluation*; each of which may be present or absent in the processing of vocabulary items in a task with varying degrees of prominence. The combination of these factors with their degrees of prominence compromises the *involvement load*, which explains and predicts the successful retention of heretofore unfamiliar words by learners. In other words, tasks which induce higher involvement load are more conducive to vocabulary retention as compared with tasks with lower involvement load.

The hypothesis has some basic assumptions. It considers time-on-task as an inherent feature of the task not amenable to manipulation. Yet the better retention effect of the tasks with higher involvement load might be the result of longer exposure to the task (time-on-task), not deeper processing of it (Paribakht & Wesch, 1997). The hypothesis also postulates that no one involvement factor gets priority over another and no particular task type – be it input task or output task– is considered superior or more effective ( Keating, 2008). The only determining factor, based on the hypothesis, is the degree of involvement that a task induces.

## 1.2 Statement of the Problem

There is a general consensus among teachers, learners, material writers, and researchers about learning vocabulary as a substantial part of mastering a language, yet the best means of achieving good vocabulary is not clear. Not surprisingly, teachers and learners are still unsure of the best way to achieve the goal (Schmitt, 2008). As Mondaria and Boer (1991) clearly state, the main challenge is to find the most efficient way of presenting the words, of making their meaning clear, and of causing them to be learned with a view of long-term retention. In their words, what is missing is a way of teaching and learning vocabulary which is based on the findings of linguistics and learning psychology.

Learning a foreign language involves the acquisition of thousands of words. Teachers of English as a second or foreign language most acknowledge that little vocabulary building gets done through their own direct agency, for they cannot cover a wide range of words in class (Parry, 1991). Since the laborious nature of intentional learning precludes the possibility of its being a major means of cultivating a large-sized lexicon, the incidental learning mode manifest as a viable alternative for vocabulary development. Hence, teachers and researchers should look for the ways through which incidental vocabulary learning could be promoted.

One of the areas of research, which is still in its infancy and deserves more attention, is the role of learning tasks in the acquisition and retention of new words. Vocabulary learning tasks are deemed one effective way of improving and adding to the learners' knowledge. Working on these tasks is, in fact, considered as a key component of learning vocabulary (Laufer & Hulstijn, 2001). There are many tasks that can be used in a second or foreign language classroom (e.g., Ellis, 1995; Ellis & He, 1999; Joe, 1995, 1998; Paribakht & Wesch, 1996, 1997), yet it may be important to determine if there are differences among these tasks with regard to the degree of help in learning the new words they can provide the learners with. If differences do exist, the next step would be to find out about the characteristics that render some tasks more effective than others. Such issues have not been addressed adequately by language experts and researchers and sufficient empirical research in this important area is seriously lacking.

As mentioned in the previous section, there are some theories of second language acquisition which have also been applied in the realm of vocabulary acquisition, including Krashen's (1981,

1989) *comprehensible input*, Swain's (1985) *comprehensible output*, Craik and Lockhart's (1972) *depth of processing model*, and the *involvement load hypothesis* by Laufer and Hulstijn (2001) which is especially related to the area of incidental vocabulary learning. What could be implied from the comprehensible input hypothesis is that tasks which provide learners with rich amount of comprehensible input, could be conducive to acquisition (Krashen, 1989). On the other hand, based on the comprehensible output hypothesis, tasks which encourage learners to notice the gap and make them to actively deploy their cognitive resources to process language in a way that may not decisively be necessary for comprehension, can lead to better acquisition and retention of new words (Ellis, 1995; Joe, 1995, 1998). Yet cognitive psychologists suggest that the more effective tasks require deeper level of processing of the new words than the other tasks (Baddely, 1990, 1999; Craik & Lockhart, 1972; Laufer & Hulstijn, 2001).

Acknowledging the importance of the notion of depth of processing (Craik & Lockhart, 1972), Laufer and Hulstijn (2001) proposed the motivational cognitive construct of *involvement*, consisting of three basic components: *need*, *search* and *evaluation*. Two degrees of prominence was suggested for each component so that each task can be described in terms of its involvement index. The combination of the involvement factors, i.e. need, search and evaluation, compromises a task involvement load. The hypothesis holds that tasks with higher involvement load are deemed more effective for word learning and retention than tasks with lower involvement load. In its current Instantiation, no involvement factor takes priority over another and no particular task type (e.g., input and output) is deemed to be, a priori, more effective than other. In Laufer and Hulstijn's (2001) words, the degree to which an L2 learner is engaged in cognitive processing does not depend on the task type, but on the combination of motivational and cognitive dimensions of the task which they termed involvement load. Another basic contention of the involvement load hypothesis is that time-on-task is an inherent feature of the task not amenable to manipulation.

Although previous studies have generally provided some support for the effect of each of these approaches on L2 vocabulary learning, we are still in need of further research to confirm the relative effectiveness and to see whether, irrespective of the type of task, more involving tasks lead to better vocabulary learning and retention. To the best of my knowledge, no study has so far been set up, in the area of vocabulary learning tasks, which study and compare all these

approaches in a single study. This is a gap in the research carried out on vocabulary learning tasks which the present study will attempt to fill. The findings of this study should help us gain more insights into task effectiveness and will have valuable pedagogical implications.

### 1.3 Significance of the Study

The significance of the present study resides in its attempt to make an empirical contribution to the long contested issue of task efficacy with respect to the incidental vocabulary learning. In a pedagogical sense, it is hoped that the results from the investigation may shed some light on the effectiveness of the involvement load hypothesis (Laufer & Hulstijn, 2001) in predicting task efficacy, thereby assisting in the development of tasks that best foster vocabulary learning in an incidental setting. Furthermore, as Meara (1998) argues, “the main difficulty ... is that we just do not have a comprehensive theory of vocabulary acquisition which could be exploited to produce practical advice for how vocabulary should be taught” (p. 290). It is hoped that the present research will contribute significantly to the comprehensiveness of this theory.

In addition, teachers and textbook writers as well may be able to benefit from the findings of this study in designing their lessons and syllabuses in order to help the learners acquire new words more quickly and more efficiently, which is the ultimate goal of any language teaching program.

### 1.4 Definition of the Terms

**Involvement load** is defined as the various combinations of *need*, *search*, and *evaluation* with their degrees of prominence (Hulstijn & Laufer, 2001).

**Initial learning** is the “vocabulary knowledge measured immediately after completing vocabulary task” (Kim, 2008, p. 314).

**Retention** is the “vocabulary knowledge measured two weeks after the tasks” (Kim, 2008, p. 314).

**Incidental learning** is “the learning of vocabulary as a by-product of any activity not explicitly geared to lexical learning” (Laufer & Hulstijn, 2001, p. 554).



**Proficiency** is defined as “the relative level of the learners by comparison to each other in the group” (Laufer, 1991).

## 1.5 Research Questions

The study is based on the involvement load hypothesis to examine whether task-induced involvement, as defined by this hypothesis, is positively correlated with the retention scores of the target lexical items. The hypothesis also claims that the determining factor for task effectiveness is the depth to which it makes learners to process the information and that no specific task type is considered to be more effective than other. Accordingly, two experiments were designed to investigate the claims made by the involvement load hypothesis. The first experiment dealt with the following questions:

1. Does the level of task-induced involvement affect the *initial* vocabulary learning of EFL learners of the same proficiency level when three tasks with different levels of involvement are administered?
2. Does the level of task-induced involvement affect the *retention* of new vocabulary of EFL learners of the same proficiency level when three tasks with different levels of involvement are administered?

The second experiment was designed to answer the following questions:

1. Is there an effect of task type on the amount of *initial* vocabulary learning by EFL students of the same level of proficiency when three tasks with the same level of involvement are administered?
2. Is there an effect of task type on the retention of new vocabulary by EFL students of the same level of proficiency when three tasks with the same level of involvement are administered?

## 1.6 Research Hypotheses

*Hypotheses based on the questions of Experiment 1:*

H0<sub>a</sub>: The level of task-induced involvement does not affect the *initial* vocabulary learning of EFL learners of the same proficiency level when three tasks with different levels of involvement are administered.

H0<sub>b</sub>: The level of task-induced involvement does not affect the *retention* of new words of EFL learners of the same proficiency level when three tasks with different levels of involvement are administered.

*Hypotheses based on the questions of Experiment 2:*

H0<sub>a</sub>: Task type does not have any effect on the amount of *initial* vocabulary learning by EFL students of the same level of proficiency when three tasks with the same level of involvement are administered.

H0<sub>b</sub>: Task type does not have any effect on the *retention* of new vocabulary by EFL students of the same level of proficiency when three tasks with the same level of involvement are administered.

## **1.7 Limitations of the Study**

No study is without limitations. Future research may wish to consider the following to improve upon the formulation of models of L2 incidental vocabulary acquisition. First, the Vocabulary Knowledge Scale (VKS) adopted in this study may not have been as sensitive in detecting incidental gains from only one exposure to the target words as other measures (e.g., multiple-choice test of recognition of meaning). Future studies may wish to consider the measures that might better tap various levels of knowledge about a new word after only one exposure.

The second limitation is that the participants represented only one level of proficiency (i.e. high intermediate). Future studies should include learners of several proficiency levels to allow for cross-sectional generalizations. Furthermore, the present study investigated the retention of the target words only two weeks after the immediate posttest. A future study can investigate the

longer delayed effects to find out if the effect of different tasks on retention remains or may be absent due to time attrition.

This study cannot be generalized to other educational settings, as a relatively small number of participants were sampled from only one university. Moreover, the participants in the current study engaged in each task only once. Multiple treatment sections for each task would allow a more definite conclusion regarding the effectiveness of each task on L2 vocabulary acquisition.

## **CHAPTER TWO**

# **REVIEW OF THE LITERATURE**

## 2.1 Overview

Vocabulary used to be largely neglected in the past years since it was thought that it could simply take care of itself. But now, thanks to the developments in computer-aided research and psycholinguistic studies which provides insights concerning mental processes involved in vocabulary learning, this picture has changed dramatically. Interest in the role of vocabulary in SLA has grown rapidly in recent years, and specialists have started paying more attention to vocabulary learning and teaching. In fact, the researchers now claim that, compared to other components of language, vocabulary is the most essential one (Barcroft, 2004; Gass & Selinker, 2008).

Researchers have investigated this important area from different perspectives such as the value of dictionary in promoting vocabulary learning (Knight, 1994; Lappescu & Day, 1993), the role of input (Coady, 1997b; Krashen, 1989; Parry, 1991; White, 1987) and/or output (Ellis & He, 1999; Shahdadeh, 2002) in enriching learners' lexical knowledge, the impact of instructional interventions ( Paribakht & Wesch, 1997), learning tasks (Barcroft, 2004; Hulstijn & Laufer, 2001; Joe, 1998; Keating, 2008; Newton, 1995), mnemonic techniques ( Hulstijn, 1997; Wang & Thomas, 1995), learning strategies ( Brown & Perry, 1991; Fraser, 1999) or glossing (Rott, 2005; Rott et al., 2002) on enhancing learners' vocabulary knowledge, etc.

Despite its centrality to language and its importance for L2 learners, lexis has traditionally been neglected in the field of SLA research. This stands in sharp contrast to the fact that lexical errors are most common among L2 learners, as evidence from large corpora suggests. Moreover, not only do vocabulary errors seem to be the most serious ones for students, but also they are the most disruptive ones for native speakers in terms of interpretation (Gass & Selinker, 2008).

Language teachers and learners are challenged by the formidable task of teaching and learning a large number of words. Due to the large number of words in English and the large amount of time needed to deliberately teach vocabulary, direct instruction alone may not make a major contribution in this respect. Thus, it is widely held that most vocabulary is acquired in an incidental fashion, as the by-product of doing other activities, not explicitly geared to vocabulary learning (Hulstijn, 2003; Laufer & Hulstijn, 2001).

In this chapter, before reviewing the notion of incidental vocabulary learning, the status of vocabulary learning and teaching throughout history will be examined. Then different aspects of word knowledge will be discussed. This section will be followed by a discussion of psychological accounts of language learning in general. The next section examines the theoretical concepts commonly associated with incidental learning in cognitive psychology as well as in second language research. To begin with, incidental learning is discussed in terms of incidental-intentional distinctions, followed by reviewing relevant empirical research on incidental vocabulary learning. The next section will present a detailed discussion of the depth of processing hypothesis; a critical theoretical assumption that myriad of empirical research on incidental vocabulary learning draws on. Finally the last section outlines the construct of task-induced involvement, the basic concept underlying the involvement load hypothesis (Laufer & Hulstijn, 2001) which motivates this study.

## **2.2 Historical Perspective**

Lexical competence is at the very heart of communicative competence, the ability to communicate successfully and appropriately (Coady & Huckin, 1997), yet this area of language teaching used to be largely neglected in the past years. This low status of vocabulary study and vocabulary teaching was in large part due to language teaching approaches based on American linguistic theories that had been dominant during the 1940s, 1950s, and 1960s (Decarrico, 2001).

During the nineteenth and twentieth century, the Grammar Translation Method was the primary method for foreign language instruction in Europe and the United States. In this method, students were provided with detailed explanations of grammar in their native languages along with bilingual vocabulary lists to memorize. The lists included literary words, selected according to their ability to illustrate grammatical rules. Whenever words were addressed at all, their explanations depended mainly on etymology. However the method was criticized for its neglect of realistic oral language (Zimmerman, 1997a).

The Reformers emphasized the primacy of spoken language and phonetic training. The lessons were based on carefully controlled spoken language in which word lists and isolated

sentences were avoided. The defining characteristic of the method was that words were associated with reality and were not used to introduce syntactic patterns. Thus, vocabulary was selected according to its simplicity and usefulness (ibid).

The Direct Method, introduced toward the end of the 19<sup>th</sup> century, considered interaction as the heart of language acquisition. Target language was used as the means of instruction. Concrete vocabulary was explained with labeled pictures and demonstrations and the abstract vocabulary was thought through the association of ideas (Richards & Rodgers, 1986). However the method was criticized for its oversimplification of the similarities between L1 (first language) and L2 (Zimmerman, 1997a).

During 1920s and 1930s, The Reading Method in the United States and Situational Language Teaching in Britain, came into existence. The focus in The Reading Method was on the development of reading skills. Similarly, the proponents of Situational Language Teaching emphasized the need to facilitate reading skill by improving vocabulary skills (ibid). The method stressed selection, gradation and presentation of language structure (Richards & Rodgers, 2001). Thus, importance was placed on vocabulary for the first time and a priority was given to the development of a scientific and rational basis for selecting the vocabulary content of language course (Zimmerman, 1997a).

Once again, with the emergence of Audio Lingual Method, grammar was given priority over vocabulary, with the assumption that it could take care of itself and would develop at later stages when learners were more certain of their particular lexical needs in different situations (Larsen-freeman, 1986).

With Hymes' (1972, cited in Zimmerman, 1997a) introduction of *communicative competence* and the teaching approach which evolved from it, i.e. Communicative Language Teaching, which emphasized fluency over accuracy, a complete change occurred in the direction for language instruction. The proponents of the method encouraged educators to pay more attention to words, since, according to them; lexical errors were more disruptive than grammatical errors. Once again, though, vocabulary was given secondary status, because attention had been mainly focused on appropriate use of communicative categories and vocabulary was seen as a support for functional use of the language.

The Natural Approach emphasized comprehensible and meaningful input rather than grammatically correct production. It considered vocabulary as a bearer of meaning and very important to the language acquisition process (Richards & Rodgers, 2001).

Richards (1976) was one of the first scholars to alert us to the fact that vocabulary is typically neglected in Foreign and Second Language instruction. He attributes this lack to the effects of trends in linguistic theory which were grammar and sound oriented. However, the picture changed dramatically during 1980s and 1990s due to the developments in computer-aided research which was providing heretofore unavailable information and linguistic studies which were providing insights concerning mental processes involved in vocabulary learning (Decarrico, 2001; Zimmerman, 1997a).

## **2.3 Vocabulary Knowledge**

Lexical knowledge can be looked at from various dimensions, notably a quantitative and qualitative angle. The former (*breadth* of vocabulary knowledge) is concerned with the question of “how much vocabulary a second language learner needs” (e.g., Nation, 2001). Clearly, knowing a word requires more than just familiarity with its meaning and form (Nation, 2001; Richards, 1976). Quite which kinds of lexical knowledge are deemed necessary to master a word is the concern of the *depth* of vocabulary knowledge.

### **2.3.1 Breadth of Vocabulary Knowledge**

The main question for L2 vocabulary acquisition here, of course, is “how many words does an L2 learner need to know?” It will come as no great surprise that the answer will be less than for “how many words does a native speaker know?” let alone the question “how many words are there in a target language?” (Nation, 2001).

As regards the number of words a native speaker knows, Nagy and Herman (1987, cited in Brown & Perry, 1991), summarizing a number of studies, estimated that a typical graduate high school student, has learned about 40,000 words, an average around 3000 words per year. A roughly similar estimation has been made by Laufer (1998). She estimated that a native speaker



of English has mastered 18,000-20,000 word families by the end of high school while graduates of Israeli high school have, at most, learned about 3500-4000 word families. Nation (2001) has also come up with similar results. According to him, educated native speakers of English know about 20,000 word families; that is, for each year of their early life, they add an average of 1000 word families a year, to their vocabulary. But this is not what most learners of English can realistically hope to achieve.

Addressing the first question, Nation (2001) contends that nonnative speakers do not need to have as large a vocabulary as native speakers do, and it is most important for nonnative speakers to learn the most useful words. Taking frequency into account, the current evidence suggests that in order to understand spoken English, learners are required to know between 2000-3000 word families – if 95% coverage is required – or between 6000-7000 word families – if 98% coverage is required (Schmitt, 2008). Laufer (1998) also acknowledges that for “minimal comprehension”, a threshold of 3000 word families and for “reading for pleasure”, a threshold of 3000 word families is required.

### **2.3.2 Depth of Vocabulary Knowledge**

Having a comprehensive knowledge of vocabulary does not just entail knowing a large number of words (Schmitt, 2008). Furthermore, knowing a word requires more than just familiarity with its meaning and form (Nassaji, 2004; Schmitt, 2008). It also involves knowing a great deal about each item which is often referred to as “depth” or quality of vocabulary knowledge and is as important as quantity or vocabulary size (Nation, 2001; Schmitt, 2008). As Nation clearly states, words are not “isolated units of language” (p. 23). As a result, there are many things to know about any particular word.

Defining learners’ depth of vocabulary knowledge is quite a complex and problematic issue because words vary in the extent to which they lend themselves to exact definition. For example, high frequency words, like *make*, *here*, *someone* are inherently vague, especially when encountered out of context (Krashen, 1989; Read, 2004). On the other hand, technical words such as *phoneme*, *immunodiffusion*, *aneurysm*, can lend themselves best to precise definition

(Read, 2004). Thus, it is quite complicated to define a criterion level of precision that can fit a wide range of different lexical items (Krashen, 1989; Read, 2004).

The first and oft-cited attempt to list the various types of lexical knowledge is usually attributed to Richards (1976), who was more concerned with applicability to pedagogical practice than the underlying theoretical issue per se. The main assumptions of Richards' vocabulary knowledge framework are as follows:

*Frequency*: Knowledge about the degree of probability of encountering that word in speech or print

*Register*: Knowledge on limitations on use according to function and situation

*Position*: Knowledge about syntactic behavior associated with the word

*Form*: Knowledge about underlying form and derivatives (morphological processes)

*Associations*: Knowledge about network of associations between that word and other words in the language

*Meaning-Concept*: Knowledge about the semantic value of a word

*Meaning-Associations*: Knowledge about the different meanings associated with the word

Ellis (1995), considering aspects of word knowledge proposed by Richards (1976), adds another dimension to word knowledge: "Learner needs to learn how words are coded phonologically and graphologically" (p. 412).

Nation (2001) elaborated on Richards' list by adding a receptive/productive distinction. His main categories are *form* (spoken/written), *meaning* (concepts/associations), and *use* (grammatical patterns/collocations), each of which is described in terms of receptive and productive aspects (Table 2.1).

Nation have also proposed a four strand approach in which all kinds of new information about lexical items are given balanced attention and then provides for consolidation and enhancement of that knowledge. It involves (a) meaning focused input, (b) meaning focused output, (c) language focused learning and (d) fluency development (for a detailed discussion of the approach see Nation, 2001).

**Table 2.1***What Is Involved In Knowing a Word*


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<i>Form:</i>	Spoken	R	What does the word sound like?
		P	How is the word pronounced?
	Written	R	What does the word look like?
		P	How is the word written and spelled?
	Word parts	R	What parts are recognizable in this word?
		P	What word parts are needed to express this meaning?
<i>Meaning:</i>	Form and meaning	R	What meaning does this word form signal?
		P	What word form can be used to express this meaning?
	Concept and referents	R	What is included in the concept?
		P	What items can the concept refer to?
	Associations	R	What other words does this make us think of?
		P	What other words could we use instead of this one?
<i>Use:</i>	Grammatical functions	R	In what patterns does the word occur?
		P	In what patterns must we use this word?
	Collocations	R	What words or types of words occur with this one?
		P	What words or types of words must we use with this one?
	Constraints on use (register, frequency...)	R	Where, when and how often would we expect to meet this word?
		P	Where, when and how often can we use this word?

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*Note.* P = productive. R = receptive.

Learners' lexical competence has been categorized in some other different ways. Laufer & Paribakht (1998), categorized learners' recognition vocabulary as passive, and productive vocabulary as active. Active vocabulary is further divided into free active vocabulary (i.e. words learners voluntarily choose to use) and controlled active vocabulary (i.e. words learners can use if required). They also found that the three knowledge types developed at different rates. Passive vocabulary knowledge was the fastest, whereas active (particularly free active) was the slowest.

Furthermore, passive vocabulary was always larger than active vocabulary, although there was a difference between learners in an EFL setting and those in an ESL setting. The gap between knowledge types was smaller in the foreign language setting, suggesting a strong role for the environment in learning. Arnaud and Savignon (1997) have a similar categorization. They define passive vocabulary knowledge as knowledge of words whose meaning can be accessed effortlessly. Laufer (1991) defines lexical knowledge as a continuum from a vague understanding of what a word means in a given context to the free use of a word in expression.

Henrikson (1999) proposes three interrelated dimensions of lexical competence. There are the *partial-precise* knowledge dimension (relating to different levels of word comprehension), the *depth* of knowledge dimension (including knowledge of syntagmatic and paradigmatic relations), and the *receptive-productive* dimension (the control and accessibility of word knowledge in comprehension and production). In Henrikson's words, vocabulary development is not an all-or-nothing process, but a dynamic process which involves two processes of *packaging* (adding to the lexical store) and *network building* (reordering or changing the lexical store).

Read (2004), introduces three distinct lines of development in the application of depth to L2 vocabulary acquisition:

1. *Precision of meaning* (from having a vague idea of meaning to much more specific knowledge of its meaning)
2. *Comprehensive word knowledge* (knowledge of orthographic, phonological, morphological, syntactic, semantic, collocational and pragmatic characteristics of a word)
3. *Network knowledge* (incorporating word into the lexical network of mental lexicon)

Considering Read's framework, Nation (2001) and Richards (1976)'s classifications fall into the second type and Henrikson (1999)'s categorization falls into the third type.

It is worth mentioning that word knowledge is not an all-or-nothing process. It is a dynamic process and involves degrees of knowledge. Understanding is gradually changed and increased