KnE Social Sciences

Knowledge E
Engaging minds

Conference Paper

Deliberate Learning of Second Language (L2) Vocabulary: Research-Based Guidelines

Syarifuddin

Universitas Negeri Malang, Indonesia

Abstract

This article is devoted to overviewing several current studies on L2 vocabulary learning, especially those aimed at investigating and exploring the ways in which deliberate vocabulary learning would be best facilitated, and thus would increase learning. It is argued that knowledge of vocabulary is fundamental in all language use, and becomes an essential part to master second language. A large amount of vocabulary is required to use English both receptively and productively: 8000 – 9000 word families needed in order to adequately comprehend a wide range of written discourse [19], and 2000 – 3000 word families required to get sufficient comprehension of spoken discourse [25]. Knowing a lexical item entails several aspects of word knowledge i.e., form, meaning, and use, each of which is further comprised of several sub-aspects of word knowledge. In addition, vocabulary learning is incremental in nature. Taken all these into account, there should be a component of deliberate vocabulary learning in language teaching, regardless of the preferred teaching methods being applied. Most importantly, deliberate learning of vocabulary should be intensively focused on lexical items which fall into both the new GSL word list [1] and the new AWL word list [4]. Finally, reviewing current studies on L2 vocabulary learning results in several research-based guidelines for deliberate or intentional vocabulary learning which are discussed throughout the rest of this article.

Keywords: vocabulary learning, vocabulary size, word knowledge, high-frequency words, academic words, deliberately-learning-vocabulary guidelines

🔓 **OPEN ACCESS**

1. Introduction

There has been a long history of research into deliberate vocabulary learning, which has resulted in a very useful set of vocabulary learning guidelines [18]. This article aims to collect those research-based guidelines by reviewing related studies and literature on L2 vocabulary learning. Accordingly, the focus of this article will be on research-based answers to several key questions concerning deliberate learning of second language (English, L2) vocabulary, which include: *How much vocabulary is needed to use English? What does knowing a word involve? What vocabulary should be focused on?* And last but not least, *How should vocabulary be learned?* In addition to these, the following part provides an elaboration of the importance of vocabulary learning in language use and in mastering a second language.

2. The Importance of Vocabulary in Language Use

Vocabulary is an important component of language use, and so needs to receive early attention in learning a second language. This issue has been highlighted by several expert statements in this field. One considerable statement in favor of this issue comes from [3]. He points out that words are the start of using the language, using his statement, "words are the starting point". He emphasized that without words, children will not be able to talk about their surroundings as without words; there would be no sound, no structure and no syntax. On the importance of vocabulary for communication, [28] asserts that "without grammar very little can be conveyed, without vocabulary nothing can be conveyed" (p. 111). In line with Wilkin's assertion, [27] claims that native speakers can better understand ungrammatical utterances with accurate vocabulary than well-grammatical utterances but with inaccurate vocabulary. In [21] argues that learning vocabulary is the heart of learning a language due to its lexical competence that enables the learners to use the language with ease. In line with Priyono's opinion, [23] states that "one thing that all of partners involved in the learning process (students, teachers, materials writers, and researchers) can agree upon is that learning vocabulary is an essential part of mastering language" (p. 4).

3. How Much Vocabulary is Needed to Use English?

How many words are there in English? They are very large. In [9] estimated that there are around 54,000 word families. A word family refers to groups of semantically related words that consist of a stem form, inflected forms as well as derivative forms [23], and most word families have several members. For example, *teach, teaches, teaching, taught, teacher, teachers, teachable, teachability, teachableness, unteachable, teacher-like* would all be members of the same word family because they all belong to the same stem and they are all semantically related although some of them do not have the same word class. Given this, the figure of 54,000 would be translated into many hundreds of thousands of individual word forms. Understanding all those words seems quite impossible for learners; even very proficient native speakers will not know all these words.

How many words do native speaker know? Native speakers will have various amount of vocabulary that they know, depending on the amount and the way they use the language. The point of discussion on this issue is that it is not necessary for learners to know all the English words or to have the number of words similar to native speakers in order to use English well. What is most important for learners then is descriptions of the amount of vocabulary necessary let them use the words they know in various forms of communication in English.

In order to come up with such descriptions, there are two things required: lexical coverage and vocabulary size [23]. The lexical coverage refers to the size of the vocabulary that a learner needs to know in a spoken or written discourse for him/her to obtain adequate comprehension of the discourse. One hundred percent coverage appears to be unnecessary since people usually understand the information conveyed in speech or writing even though there are some words they do not know. However, if there are too many unknown words, sufficient comprehension would become hard thing to achieve. What percentage of words should be known? To date, most studies suggest that the coverage of 95-98% is enough to obtain acceptable comprehension, e.g. [11, 12, 25]. This means that in order to adequately understand a written or spoken discourse, a person needs to know a range of 95% to 98% of all running words in such discourse. In other words, there are only 2% - 5% of unknown words (e.g. there are 2 - 5 unknown words of the total number of 100 running words).

The second requirement is vocabulary size, which refers to the number of words needed to achieve the lexical coverage percentage that has been established. A recent study by [19], based on data from the British National Corpus, found that 98% coverage in written texts requires knowledge of around 8,000-9,000 word families, and 98% coverage in spoken texts corresponds to knowledge of around 6,000-7,000 word families. A more recent study [25] suggests that 95% coverage may be enough for listening comprehension or spoken texts, and that this can be reached with around 2,000-3000 word families.
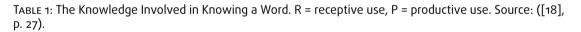
4. What Does Knowing a Word Entail?

What is involved in knowing a word (i.e. word knowledge) is "a rich and complex construct" [23]. According to many teachers and learners, learning a lexical item is considered to be accomplished when the spoken/written form and meaning are already known. It seems true that knowing form-meaning link of a lexical item becomes the first and even the most essential lexical aspect which must be acquired, and this kind of knowledge may be enough to enable receptive use. However, a person needs to know much more about lexical items, particularly if the intention is to use them productively. In this respect, [18] provides the best description of what knowledge is involved in knowing a word in order to be used properly and effectively (see Table 1).

The first thing that Table 1 highlights is that there are many types of knowledge involved in to use a word properly and effectively. As shown in Table 1, word knowledge is divided into three areas/types: knowledge of *form*, knowledge of *meaning*, and knowledge of *use*. Each of these areas is further subdivided into three parts. Each part is subdivided into *receptive* knowledge (shown with an R) and *productive* knowledge (shown with a P). The *receptive* knowledge of a word refers to the words that are

FORM	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 or spelled?
	Word parts	R	What parts are recognizable in the word?
		P	What word parts are needed to express this meaning?
MEANING	Form and meaning	R	What meaning does this word form signal?
		P	What word form can be used to express this meaning
	Concepts 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?
USE	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?

TABLE 1: The Knowledge Involved in Knowing a Word. R = receptive use, P = productive use. Source: ([18], p. 27).

recognized when heard or read, while the *productive* knowledge refers to the words that can be recalled and used in speech or writing.

Knowledge of *form* involves knowing what a word sounds like (the phonological form), what it looks like (the written form), and knowing what prefixes and/or suffixes we use to add or change meaning in the word (for example, the word *teacher* consists of the word parts *teach* and *–er*. We add the suffix *–er* to create a new meaning indicating 'person who teaches).

Knowledge of *meaning* is likewise divided into three parts. The first part is, *form and meaning*, which involves the ability to link the form to a meaning, and often in a foreign language involves making a connection between a foreign language word and its translation in the native language. However, languages are not exactly parallel to each other in the way they use their vocabulary. The other sub-divisions, *concepts and referents* and *associations,* indicate that a word in one language might require several translations or carry different meanings and associations in another language. The

English word *fat,* for example, carries very negative connotations (i.e. it is considered impolite) when used to describe a person.

Like the two previous knowledges, knowledge of *use* is also divided into three parts. The first sub-division, *grammatical functions*, involves knowing what part of speech a word belongs to and how it will link with other words as a consequence. The *collocation* sub-division refers to knowing other words that are frequently used together with a given word. For example, we can combine the words *train* and *food* with the word *fast* but not with the word *quick*, therefore, the combinations such as *the quick train* and *quick food* will sound 'unnatural' or just 'wrong' to English native speakers.

The last sub-division in the knowledge of *use* is *constrains in use*. This knowledge involves knowing a *register* in which we may expect to encounter or use a word, and knowing how often we may meet or use the word in that *register*. The term *register* refers to " a combination of the kind of activities and topic we are writing and talking about (sometimes called *field*), the *tone* we wish to use (based on the participants and their relationship with each other) and the *mode* of the communication (for example email, formal oral announcement, literary novel or tweet)" ([10], p. 77).

5. What Vocabulary Should Be Focused on?

In [18] suggests that there are two main considerations required to determine what vocabulary to focus on: the needs of the learners and the usefulness of the vocabulary items. Teachers and materials writers should choose vocabulary that is mostly appropriate for the learners' actual objectives (e.g., everyday conversation, academic work, business), proficiency level and literacy level target. The usefulness of vocabulary items is measured by discovering their frequency and range in a relevant corpus. The high-frequency words occur so frequently and is so widespread in a wide range of authentic texts. Consequently, these words are extremely useful for learners, and so need to be the first and main vocabulary goal of the learners. On the other hand, the low-frequency words are so infrequent and have such a narrow range of occurrence, and so should not deserve teaching time. Rather, teachers should focus on strategies that will help learners to deal with these words.

The academic words refer to the words that commonly occur in a wide range of academic texts. These words are worth focusing on for learners who intend to take an academic study through medium of English at tertiary level. The same thing goes for the technical words, which consists of words that are closely related to a particular subject area. These words occur much more frequently in a specialized text rather than in other areas. For example, the technical words of the field 'phonetics' will include words like *larynx, bilabials, labiodentals, dentals, palatals, fricatives,* and *nasal-cavity*. These worlds usually occur only in the fields of phonetics and phonology. These

technical words are worth focusing on for learners who are specializing in the fields of phonetics and phonology.

The best and widely used list of the academic words is [4] *Academic World List (AWL)* which contains 570 word families which were selected according to several principles. This wordlist is claimed to make up 8.5 – 10 per cent of the tokens (the running words) in a wide range of academic texts (e.g., arts, commence, law, science, linguistics, and language teaching). Another academic words list is [7] *Academic Vocabulary List (AVL).* Academic words should become the learners' vocabulary learning goal after they have learned [26] *GSL* and [1] new-*GSL* wordlists.

In [26] *GSL*, [1] new-*GSL*, [4] AWL, and [7] *AVL* wordlists are comprised of individual words. They only provide lists of individual words. Unfortunately, vocabulary is not just made up of individual words. Research suggest that both spoken and written discourses consist of groups of words, like *at the end of the day, pass away, in spite of*, *look after*, *take into account,* which seem to be used like single words which realize single meanings or functions. These groups of words are often referred to as *formulaic language*, which is simply defined as multi-word units that have a single meaning or function. In [20] suggest that native speakers speak appropriately and fluently because they have stored a great deal of the formulaic language which they can draw on when involving in communication. Therefore, learners should not only focus on high-frequency individual words but also on formulaic language. Some categories of formulaic language include collocations, phrasal verbs, expressions, and idioms. Luckily, to date several corpus-based studies come up with several lists of such words. The lists include phrasal verb list, e.g., [6, 8, 15], idioms list, e.g., [14, 24], collocations, e.g., [5], a phrasal expressions list [16].

6. How Should Vocabulary Be Learned?

In general, there are two main approaches through which vocabulary is learned: incidental learning and deliberate learning. Learning vocabulary through incidental learning mostly happens in first language. For second language vocabulary, both incidental and deliberate learning are required. Most studies comparing incidental vocabulary learning with deliberate vocabulary learning considerably suggest that deliberate learning is more effective, e.g., [13, 17, 29], and this becomes the main reason for learning vocabulary deliberately.

There has been a long history of research into the deliberate learning of vocabulary. The research has provided us with a very useful set of guidelines for learning vocabulary. In [18] illustrates these research-based guidelines through the use of word cards:

1. *Retrieve rather than recognize*. The activities involve writing the word to be learned on one side of a small card and its translation on the other side. It causes retrieval of the item after the first meeting. Each retrieval strengthens
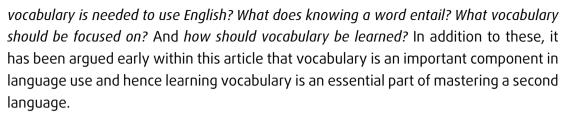
the connection between the form of the word and its meaning. Seeing them both together does not do this.

2. *Use appropriately sized groups of cards*. This part is started with small packs of cards about 15 or 20 words. Difficult items should be learned in small groups to allow more repetition and more thoughtful processing.

3. *Space the repetitions*. The activity makes use of spacing by going through the cards a few minutes after first looking at them, and then an hour or so later, and then the next day, and then a week later and then a couple of weeks later. This spacing is much more effective than massing the repetitions together into an hour of study. The total time taken may be the same but the result is different. Spaced repetition results in longer lasting learning.

4. *Repeat the words aloud or to yourself*. This ensures that the words have a good chance of going into long-term memory.

5. *Process the words thoughtfully*. The activity can be done for words that are difficult to learn by using depth of processing techniques like the keyword technique. Think of the word in language contexts and visualize it in situational contexts. Break the word into word parts if possible. The more associations you can make with an item, the better it will be remembered.

6. *Avoid interference*. It means that the activity needs to ensure that words of similar spelling or of related meaning are not together in the same pack of cards. This means days of the week should not be all learned at the same time. The same applies to months of the year, numbers, opposites, words with similar meanings, and words belonging to the same category, such as items of clothing, names of fruits, parts of the body and things in the kitchen. These items interfere with each other and make learning much more difficult.

7. *Avoid a serial learning effect*. It means that we need to keep changing the order of the words in the pack. This will avoid serial learning where the meaning of one word reminds you of the meaning of the next word in the pack.

8. *Use context where this helps*. It involves writing collocates of the words on the card too where this is helpful. This particularly applies to verbs. Some words are most usefully learned in a phrase or sentence.

7. Conclusions and Suggestions

This article has discussed several useful guidelines for learning English L2 vocabulary by reviewing related studies and literature to provide answers to several key questions concerning the issues of L2 vocabulary learning. These questions include: *How much*

vocabulary is needed to use English? What does knowing a word entail? What vocabulary should be focused on? And *how should vocabulary be learned?* In addition to these, it has been argued early within this article that vocabulary is an important component in language use and hence learning vocabulary is an essential part of mastering a second language.

With respect to the aforementioned questions, this article has highlighted some important points: (1) a large vocabulary is required for language use. It is estimated that around 8,000-9,000 word families are needed for written discourse and 2,000-3000 word families for spoken discourse, in order to enable adequate comprehension; (2) vocabulary knowledge is a rich and complex construct. What is meant by knowing a word involves various types of knowledge, including knowledge of *form*, *meaning*, and *use*; (3) learning vocabulary intentionally should be focused on words that high-frequently occur in spoken and/or written discourses (examples: West' *GSL*, Brezina and Gablasova's new-*GSL*, Coxhead's *AWL,* Garner and Davies' *AVL*). In addition, it is also equally important for learners to focus their vocabulary learning on high-frequency formulaic sequences which have been generated from the corpus-based studies nowadays; (4) last but not least, in order to facilitate learning best, L2 vocabulary should be learned in the way that the research-based guidelines suggest.

References

[1] V. Brezina and D. Gablasova, "Is there a core general vocabulary? Introducing the new general service list," Applied Linguistics, vol. 36, no. 1, pp. 1–22, 2015.

[2] R. Carter, Vocabulary, Applied linguistic perspectives, Routledge, Oxford, 2012.

[3] E. V. Clark, The Lexicon in acquisition, Cambridge University Press, Cambridge, 1993.

[4] A. Coxhead, "A new academic word list," TESOL Quarterly, vol. 34, no. 2, pp. 213–232, 2000.

[5] N. C. Ellis, R. Simpson-Vlach, and C. Maynard, "Formulaic language in native and second language speakers: Psycholinguistics, corpus linguistics, and TESOL," TESOL Quarterly, vol. 42, no. 3, pp. 375–396, 2008.

[6] D. Gardner and M. Davies, "Pointing out frequent phrasal verbs: A corpus-based analysis," TESOL Quarterly, vol. 41, no. 2, pp. 339–359, 2007.

[7] D. Gardner and M. Davies, "A new academic vocabulary list," Applied Linguistics, vol. 35, no. 3, pp. 305–327, 2014.

[8] M. Garnier and N. Schmitt, "The PHaVE List: A pedagogical list of phrasal verbs and their most frequent meaning senses," Language Teaching Research, vol. 19, no. 6, pp. 645–666, 2015.

[9] R. Goulden, P. Nation, and J. Read, "How large can a receptive vocabulary be?" Applied Linguistics, vol. 11, no. 4, pp. 341–363, 1990.

[10] J. Harmer, "Essential teacher knowledge: Core concepts in English language teaching," Pearson Education Limited, Edinburgh Gate, 2012.

[11] M. Hu and I. S. P. Nation, "Unknown vocabulary density and reading comprehension," Reading in a Foreign Language, vol. 23, no. 1, pp. 403–430, 2000.

[12] B. Laufer and C. G. Ravenhorst-Kalovski, "Lexical threshold revisited: Lexical text coverage, learners' vocabulary size and reading comprehension," Reading in a Foreign Language, vol. 22, no. 1, pp. 15–30, 2010.

[13] B. Laufer and K. Shmueli, "Memorizing new words: Does teaching have anything to do with it?" RELC Journal, vol. 28, no. 1, pp. 89–108, 1997.

[14] D. Liu, "The most frequently used spoken American English idioms: A corpus analysis and its implications," TESOL Quarterly, vol. 37, no. 4, pp. 671–700, 2003.

[15] D. Liu, "The most frequently used English phrasal verbs in American and British English: A multicorpus examination," TESOL Quarterly, vol. 45, no. 4, pp. 661–688, 2011.

[16] R. Martinez and N. Schmitt, "A phrasal expressions list," Applied Linguistics, vol. 33, no. 3, pp. 299–320, 2012.

[17] H.-T. Min, "EFL vocabulary acquisition and retention: Reading plus vocabulary enhancement activities and narrow reading," Language Learning, vol. 58, no. 1, pp. 73–115, 2008.

[18] I. S. P. Nation, "Learning Vocabulary in Another Language," Cambridge University Press, Cambridge, 2001.

[19] I. S. P. Nation, "How large a vocabulary is needed for reading and listening?" Canadian Modern Language Review, vol. 63, no. 1, pp. 59–82, 2006.

[20] A. Pawley and H. F. Sydner, "Two puzzles for linguistic theory: Native-like selection and native-like fluency," in Language and communication, J. C. Richards and R. W. Schmitt, Eds., pp. 191–225, Longman, London, 1983.

[21] Priyono, "Towards a reduction of grammar teaching: A lexical analysis," TEFLIN Journal, vol. 10, no. 1, pp. 88–102, 1999.

[22] J. C. Richards, "Word lists: Problems and prospects," RELC Journal, vol. 5, no. 2, pp. 69–84, 1974.

[23] N. Schmitt, Researching vocabulary: A vocabulary research manual, Palgrave Macmillan, Basingstoke, 2010.

[24] R. Simpson and D. Mendis, "A corpus-based study of idioms in academic speech," TESOL Quarterly, vol. 37, no. 3, pp. 419–441, 2003.

[25] H. Van Zeeland and N. Schmitt, "Lexical coverage in L1 and L2 listening comprehension: The same or different from reading comprehension?" Applied Linguistics, vol. 34, no. 4, pp. 457–479, 2013.

[26] M. West, A general service list of English words, Green and Co, London, Longman, 1953.

[27] H. G. Widdowson, Teaching language as communication, Oxford University Press, 1978.

[28] D. A. Wilkins, Linguistics in language teaching, Edward Arnold, London, 1972.

[29] C. Zimmerman, "Do reading and interactive vocabulary instruction make a difference? An empirical study," TESOL Quarterly, vol. 31, no. 1, pp. 121–140, 1997.