

GREEK VOCABULARY ACQUISITION USING SEMANTIC DOMAINS

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I. INTRODUCTION¹

Professors of Greek can readily identify with Bernard Brandon Scott's observation, "After completing a beginning grammar course, most students . . . fail to clear the difficult hurdle of mastering sufficient vocabulary to read the Greek NT by sight. Often they become discouraged and quit."² Rydberg-Cox and Mahoney likewise echo this concern: "Vocabulary acquisition is a particularly vexed question for intermediate students of Greek and Latin."³ While the latter's research involving the Perseus Digital Library has been directed toward students learning classical texts, our concern is that Christian students maximize their potential in learning the *koine* Greek of the NT. The best way to acquire and master that vocabulary is the subject of this article. Before examining the available approaches to Greek vocabulary acquisition and proposing a fresh alternative, we will first look at some of the current research related to second language (L2) vocabulary acquisition.

II. SECOND LANGUAGE VOCABULARY ACQUISITION

In recent decades a worldwide industry, with research, institutions, and publications, has arisen over second language acquisition. Because English has emerged as the global *lingua franca*, the English language is the predominant focus of such enterprise. Research conducted in conjunction with ESL programs has valuable implications for teaching biblical languages, particularly vocabulary acquisition. However, even within the ESL movement little emphasis has been placed on the acquisition of vocabulary. Zimmerman writes, "Although the lexicon is arguably central to language acquisition and use, vocabulary instruction has not been a priority in second

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¹ An earlier draft of this paper was presented at the 54th Annual Meeting of the Evangelical Theological Society in Toronto, Canada, on November 20, 2002. I wish to thank Jason Oden, my student assistant at Oral Roberts University, for some of the research that appears in this article.

² Bernard Brandon Scott *et al.*, *Reading New Testament Greek* (Peabody, MA: Hendrickson, 1993) 1.

³ Jeffrey A. Rydberg-Cox and Anne Mahoney, "Vocabulary Building in the Perseus Digital Library," <http://tantalos.perseus.tufts.edu/~amahoney/vocab.co.pdf>, November 14, 2002.

language acquisition research or methodology.”⁴ Coady cites a typical attitude held by teachers and scholars that teaching vocabulary is a low-level activity not worthy of their complete attention. Although students feel words are very important, teachers tend to believe the challenge is grammar.⁵ Such attitudes may also characterize Greek pedagogy, where there is usually limited instruction related to vocabulary acquisition. It is assumed that students can learn vocabulary on their own. Teachers tend to emphasize the memorization of grammatical paradigms instead. Perhaps the failure of Greek students to gain reading competency can be attributed to instructional shortcomings.

In the 1990s the neglect regarding vocabulary acquisition in ESL programs began to be rectified, and research in that area proliferated. This paper makes no claim to having reviewed it all. The Vocabulary Acquisition Research Group at the University of Wales, Swansea, has an entire web site devoted to the topic.⁶ The site includes an extensive bibliographical archive of articles on vocabulary acquisition published from 1991 to 2001. Two books with particular insights on the subject have recently been published. James Coady and Thomas Huckin have edited a collection of fourteen essays in *Second Language Vocabulary Acquisition* (1997), and Norbert Schmitt has written *Vocabulary in Language Teaching* (2000).

1. *Threshold vocabulary.* Threshold vocabulary is the amount of vocabulary necessary to read authentic second language (L2) texts using first language (L1) reading strategies. Such vocabulary known by sight includes “words whose forms and common meanings are recognized *automatically*, regardless of context.”⁷ Laufer agrees that the largest obstacle to good reading “is insufficient number of words in the learner’s lexicon.”⁸ After surveying the research on threshold vocabulary, she concludes that 3,000 word families, or 5,000 lexical items, are the minimum threshold necessary for passing an ESL test, regardless of how high a student’s academic ability might be. These 3,000 word families enable coverage of 90–95% of any text.⁹ Nation and Newton affirm that learning high frequency vocabulary words provides the best return for study time invested. In fact, “the most frequent

⁴ Cheryl Boyd Zimmerman, “Historical Trends in Second Language Vocabulary Instruction,” in James Coady and Thomas Huckin, eds., *Second Language Vocabulary Acquisition* (Cambridge: Cambridge University Press, 1997) 17.

⁵ James Coady, “L2 Vocabulary Acquisition: A Synthesis of the Research,” in Coady and Huckin, *Second Language Vocabulary Acquisition* 274.

⁶ The site’s URL is <http://www.swan.ac.uk/cals/calsres/index/>. Another excellent web site with bibliography on second language vocabulary acquisition is <http://privatewww.essex.ac.uk/~vcook/slabib.html>, while TESL has its own site with bibliography at <http://iteslj.org/links/TESL/Articles/Vocabulary/>. All these sites have on-line articles or links to articles on second language vocabulary acquisition.

⁷ Batia Laufer, “The Lexical Plight in Second Language Reading,” in Coady and Huckin, *Second Language Vocabulary Acquisition* 22.

⁸ *Ibid.* 31.

⁹ *Ibid.* 24.

2,000 headwords account for at least 85% of the words on any page of any book no matter what the subject matter.”¹⁰

Drawing parallels with the vocabulary of only one document—the Greek NT—rather than an entire language has obvious difficulties; nevertheless, it can be instructive. The Greek NT contains 5,437 words, which fall into approximately 736 word families.¹¹ 3,246 of these words are used 3 times or less, over 500 of which are proper names that are usually transliterated and easily recognizable.¹² First-year Greek students typically acquire a vocabulary of under 500 words. Mounce, for example, in his widely used textbook *Basics of Biblical Greek* presents students with every word used 50 times or more. He adds 6 others, thus introducing only 319 words. However, these 319 words constitute almost 80% of the total word count of the NT.¹³ Greek vocabulary guides typically present students with the 1,067 words used 10 times or more. By knowing these 1,067 words, the student comprehends over 90% of the total word count of the NT.

To achieve success in reading a second language, Coady argues “that we must enable students to learn and acquire a lexical base. . . .”¹⁴ Since the 2,000 word threshold is so critical, Schmitt cites Meara’s suggestion that it might be better to concentrate on teaching the necessary vocabulary right at the beginning of a language course. “Although the students would not know a lot about grammar at the end of this vocabulary-based period, I suspect that they would quickly make up this shortfall, and would soon overtake students who were taught by more traditional methodologies.”¹⁵ Such a suggestion is probably too radical for most language programs, but its implications for teaching Greek must surely be considered.

2. *Vocabulary learning strategies.* Vocabulary learning strategies vary between the levels of students. To acquire a threshold vocabulary requires repeated contact with a word. A L2 student must encounter a new word between 6 and 20 times before that word is known.¹⁶ According to Schmitt, “shallower” strategies such as rote memorization may be more suitable for

¹⁰ Paul Nation and Jonathan Newton, “Teaching Vocabulary,” in Coady and Huckin, *Second Language Vocabulary Acquisition* 238.

¹¹ The total word count varies between sources; I have followed William Mounce in *Basics of Biblical Greek* (Grand Rapids: Zondervan, 1993) 17. Trenchard divides these words into 736 cognate word groups in *The Student’s Complete Vocabulary Guide to the Greek New Testament* (Grand Rapids: Zondervan, 1992). Thomas A. Robinson in *Mastering Greek Vocabulary* (Peabody, MA: Hendrickson, 1991) likewise divides these words into cognate word groups, but only carries these divisions down to 20 usages.

¹² Bruce Metzger, *Lexical Aids For Students of New Testament Greek* (Princeton: Theological Book Agency, 1969) 1.

¹³ Mounce, *Basics of Biblical Greek* 324.

¹⁴ James Coady, “L2 Vocabulary Acquisition through Extensive Reading” 235.

¹⁵ Norbert Schmitt, *Vocabulary in Language Teaching* (Cambridge: Cambridge University Press, 2000) 143. Schmitt’s main reason for believing that vocabulary knowledge can help grammar acquisition is “that knowing the words in a text . . . permits learners to understand the meaning of the discourse, which in turn allows the grammatical patterning to become more transparent” (ibid.).

¹⁶ I. S. P. Nation, *Teaching and Learning Vocabulary* (Boston: Heinle and Heinle, 1990) 43–45.

beginners. However, “deeper” learning strategies such as forming associations and utilizing keyword methods are more beneficial for intermediate and advanced learners and have been shown to enhance retention.¹⁷ L1 vocabulary acquisition occurs incrementally over a period of years. Although incremental learning would be the ideal way to acquire L2 vocabulary, this is not feasible since acquisition must usually be accomplished in a much shorter period of time.

Incidental acquisition in authentic texts is ideal but, according to Groot, is inadequate for L2 learners because “it contains too many other unknown words.”¹⁸ Yet it is instructive to note the three stages to incidental vocabulary acquisition that have been observed:

- a. Notice of the various properties of the new word: morphological and phonological, syntactic, semantic, stylistic, collocational, and so forth.
- b. Storage in the internal lexicon in networks of relationships that correspond to the properties described in (1).
- c. Consolidation of the storage described in (2) by means of further exposure to the word in a variety of contexts which illustrate its various properties. This results in a firmer embedding in the memory needed for long term retention.¹⁹

Thorough implementation of these stages embeds the vocabulary into the mental lexicon; superficial (i.e. “crash” memorization) ensures a high rate of forgetting. The deeper the level of vocabulary processing the better is the chance for retention. A general consensus exists among researchers, according to Groot, that “there is a stringent relationship between retention and intensity or elaborateness of processing lexical information about a new word (i.e. paying close attention to its various features such as spelling, pronunciation, semantic and syntactic attributes, relationships with other words, etc.).”²⁰

3. *Semantics-based approaches to vocabulary acquisition.* Some L2 teachers have championed semantics-based approaches for vocabulary acquisition. John T. Crow claims that semantic fields are the best way to expand an individual’s vocabulary and discourages the use of decontextualized word lists based on frequency of occurrence computations.²¹ He claims that the use of these lists has been the primary teaching aid of vocabulary, although “rote learning is one of the most inefficient applications of human cognitive facilities.”²² His research ultimately concludes that a student should initially learn a receptive (i.e. passive) vocabulary—what is needed for a basic use of the language in listening and reading—in order to achieve quicker

¹⁷ Schmitt, *Vocabulary in Language Teaching* 132–33.

¹⁸ Peter J. M. Groot, “Computer Assisted Second Language Vocabulary Acquisition,” *Technology* 4/1 (May 2000) 63 (posted at <http://llt.msu.edu/vol4num1/groot/default.html>).

¹⁹ *Ibid.* 64.

²⁰ *Ibid.* 65.

²¹ John T. Crow, “Receptive Vocabulary Acquisition for Reading Comprehension,” *The Modern Language Journal* 70/2 (1986) 242–49.

²² *Ibid.* 244.

interaction with the text and a basic comprehension of the text. In their study of vocabulary acquisition Crow and Quigley found that advanced ESL students gained receptive control over twice as many words using a semantic field approach as using a traditional approach, with no significant difference in long-term retention.²³

R. U. Manguashca also argues for the use of semantics-based approaches in L2 vocabulary acquisition, but her arguments differ from those of Crow. She claims that the type of passive vocabulary that Crow promotes (e.g. key word associations) is insufficient, because it does not teach the student the total semantic range of the word. According to Manguascha, there should be within a semantic field a cluster of words that is individually defined in order to reveal the “meaning and use of each term.”²⁴ She concludes that the use of semantic fields will not only accomplish discernment of terminology but also provide the L2 student with a systematic, organized system of vocabulary—which is how grammar and phonology have been taught for many years.²⁵ Manguascha sees at least two advantages to using a semantics-based methodology. First, it helps students to build solid lexical competence. Second, its holistic-relational concept of lexicon better accords with the way lexical elements are retained and stored, the so-called “semantic memory” or “mental lexicon.” She cites a 1973 study by Hennings that “advanced learners store words primarily according to meaning links and semantic associations of various types.” The use of semantic fields would “facilitate the mnemonic retention of the vocabulary learnt.”²⁶ Her conclusions would hold true not only for modern languages, but for ancient languages as well.

III. SEMANTIC DOMAINS AND GREEK VOCABULARY ACQUISITION

The use of semantic domains as a tool for vocabulary acquisition is new within the discipline of biblical Greek. Yet seventy years ago Walter Ripman, in his *Handbook of the Latin Language*, organized Latin vocabulary into domains and subdomains. Words with similar meanings were grouped together, and words with various meanings were dispersed throughout different domains.²⁷ The noted NT scholar I. Howard Marshall, himself a student of Latin, claims that Ripman’s reference was “an extremely useful way of organizing the material for a student learning Latin vocabulary.”²⁸

1. *Louw and Nida’s semantic domains lexicon and vocabulary acquisition.* The NT Greek lexicon of Louw and Nida has been a useful resource for Greek lexicography for over a decade, aiding translators, scholars, and

²³ John T. Crow and June Quigley, “A Semantic Field Approach to Passive Vocabulary Acquisition for Reading Comprehension,” *TESOL Quarterly* 19 (1985) 497–513.

²⁴ Raffaella Uslenghi Manguashca, “Semantic Fields: Towards a Methodology for Teaching Vocabulary in the Second-Language Classroom,” *Canadian Modern Language Review* 40 (1984) 279.

²⁵ *Ibid.* 282–83.

²⁶ *Ibid.* 294–95.

²⁷ Walter Ripman, *Handbook of the Latin Language* (London: Dent, 1930) 531.

²⁸ I. Howard Marshall, “Greek-English Lexicon of the New Testament Based on Semantic Domains,” *Evangelical Quarterly* 62 (1990) 183–86.

students. Louw and Nida's lexicon contains 93 semantic domains arranged according to a certain genus of words: entities or objects (D 1–12), events or activities (D 13–57), abstracts or characteristics (D 58–88), relations (D 89–90), discourse markers (D 91), discourse referentials (D 92), and proper names (D 93), and the majority consist of subdomains that distinguish the words even further.²⁹ The principles of classification are:³⁰

- a. The existence of shared features between lexemes, e.g. size, shape, time, movement, number, importance, etc.
- b. The close association of entities and activities, e.g. “eyes” with “sight” or “hands” with “tools.”
- c. The grouping of meaning that reflects the “world view” of the native speakers (the primary criterion).
- d. The order of the domains and the entries of the domains are arranged from generic to specific.
- e. Negative and positive words appear within the same domain due to their close association with semantic features.

David Alan Black suggests that the great advantage to the semantic domains approach is “that it is based upon *synchronic* (contextual) data, rather than the *diachronic* (historical) data supplied by most lexicons.”³¹ It is also related to the connotative rather than the denotative meaning of individual words.³² The five principles utilized in the lexicon have been applied to Greek vocabulary acquisition by this author in a recently published work called *Mastering New Testament Greek Vocabulary Through Semantic Domains*.³³ The work uses Louw and Nida's domain classification to teach Greek vocabulary through associative fields.

2. *Vocabulary acquisition and the use of glosses.* A primary divergence between the lexicon and *Mastering New Testament Greek Vocabulary* is that every entry, due to the nature of a vocabulary guide, consists only of what Louw and Nida call glosses (or English references) rather than detailed definitions. Louw and Nida give such detailed definitions along with glosses of all the various meanings of a lexeme within its semantic domain(s). This contrasts with many dictionaries of biblical Greek, such as Barclay Newman's familiar *Concise Greek-English Dictionary of the New Testament*, which provide only glosses for the basic meaning of words. Louw and Nida rightly point out that glosses fail to provide the distinctive features of meaning and

²⁹ Eugene A. Nida and Johannes P. Louw, *Lexical Semantics of the Greek New Testament: A Supplement to the Greek-English Lexicon of the New Testament Based on Semantic Domains* (Atlanta: Scholars Press, 1992) 107.

³⁰ Nida and Louw, *Lexical Semantics* 109–14.

³¹ David Allan Black, *Linguistics for Students of New Testament Greek* (Grand Rapids: Baker, 1988) 124.

³² Connotation is defined by Black as “the special meaning the same word may have for a limited group of speakers” while denotation is “the special meaning a word has for all who hear it” (ibid. 131).

³³ *Mastering New Testament Greek Vocabulary Through Semantic Domains* (Grand Rapids: Kregel, 2003).

can at times be misleading. They note several examples where an accurate definition may require a somewhat lengthy description.³⁴

It might be asked, then, how the methodological intent of Louw and Nida's lexicon can be harmonized with *Mastering New Testament Greek Vocabulary*. Although the latter uses glosses and not detailed definitions, both share a semantic domains approach. Thus certain goals of the lexicon, such as revealing the subtle distinction between words with similar meanings and eliminating the idea that words have one basic meaning, can in part be realized. For example, the words σφάζω ("I slaughter, I murder") and ἀναιρέω ("I kill") found in Domain 20D can be distinguished in meaning by the use of glosses alone. Yet even Louw and Nida are forced to use glosses: volume 2 of the lexicon provides a Greek-English Index that lists glosses for every entry.

Glosses clearly cannot give nuanced meanings of Greek words as well as detailed definitions, yet their benefits should not be minimized. Glosses are very helpful for beginning and intermediate Greek students because they allow students to acquire a basic but adequate reading knowledge of the Greek text. For students of Greek vocabulary, learning semantically organized glosses rather than detailed definitions circumvents countless hours of study and aids in memorization while expanding vocabulary. Mounce claims, "So many would-be-exegetes lose their ability to use language study because they are not able to work in the language on a continuing basis." He argues that the nonessentials of the Greek language should be reduced in order for the students to easily learn and retain it.³⁵ *Mastering New Testament Greek Vocabulary* organizes and classifies Greek words into mnemonic groups so that students can interact with the original Greek text in a shorter time.

Most of the glosses in *Mastering New Testament Greek Vocabulary* are identical with those given in the Greek-English Index found in volume 2 and are consistent with the definitions found in the lexicon. (Sometimes, it was discovered that the glosses in the Index were different from those in the lexicon.) Occasionally the glosses provided are different from those given by Louw and Nida. One example is ἐρμηνεύω and μεθερμηνεύω, whose suggested glosses are "to translate, to interpret." However, neither the NRSV nor the NIV use "to interpret." Instead the preferred translations are "I mean" or "I translate." "Mean" is one of the words in the title of subdomain 33J, so this gloss was given for the two Greek words. Sometimes a problem arose with the suggested glosses, as with ἰκανός. "Adequate" and "sufficient" are usually suggested as glosses in other vocabulary guides; however, the former gloss is never used in the NIV or NRSV, and the latter is used only once. The glosses "many" (59A) and "large" (59B) comprise the preponderance of the translations of ἰκανός in the NT; yet these are absent from other vocabulary

³⁴ Johannes P. Louw and Eugene A. Nida, *Greek-English Lexicon of the New Testament Based on Semantic Domains* (New York: United Bible Societies, 1989) 1.vii–viii.

³⁵ Mounce, *Basics of Biblical Greek* x.

guides. Another frequent translation is “worthy,” not mentioned in Louw and Nida, so it was inserted in 65B: “Worthy, Not Worthy.”

Trying to provide glosses for low frequency words was more difficult. For words used less than 10 times, Louw and Nida’s glosses were checked with the NIV and NRSV translations (occasionally the NKJV too), so that they might be in conformity. Students are thus learning glosses from familiar translations that they will encounter in their reading and will use in ministry. Such repetition will aid in memorizing low frequency words, even those related to common cognate groups.

IV. A COMPARISON OF GREEK VOCABULARY ACQUISITION RESOURCES

A number of vocabulary acquisition resources are currently available for biblical Greek. While it is not possible to list them all, several representative ones will be discussed. Bruce M. Metzger’s *Lexical Aids for Students of New Testament Greek* has been the standard for decades. Metzger provides 1,067 words based on word frequency to 10 usages, adding about 250 additional words in Part II where Greek vocabulary words are classified according to their root (cognates).³⁶ Robert E. Van Voorst’s *Building Your New Testament Greek Vocabulary* presents words used 5 times or more, first in cognate groups and then for those without cognates in an alphabetized list.³⁷ Thomas A. Robinson’s *Mastering Greek Vocabulary* is likewise organized according to cognate word groups. Individual words in the groups with high frequencies are marked 25 (25 or more usages) or 10 (10–24 usages). Memorization of these high frequency words is recommended.³⁸ Warren Trenchard’s *Student’s Complete Vocabulary Guide to the Greek New Testament* presents its material in three main sections: cognate word groups, a complete frequency list of words, and proper names.³⁹ This is the most comprehensive of the vocabulary guides, and provides a wealth of information on the vocabulary of the Greek NT. Bernard Brandon Scott’s *Reading New Testament Greek* is also based on word frequencies to 10 usages. In Part 2 he usefully provides all the words used 9 times or less organized either by the Synoptic *pericopae* or the chapters of the NT.⁴⁰

1. *Vocabulary acquisition through word frequency and cognate groups.* Learning Greek vocabulary from a list arranged by word frequency might seem simple at first. But even memorizing the 1,067 Greek words used 10 times or more becomes challenging. For example, in Metzger’s volume the category “Words Occurring 81 to 90 Times” begins:⁴¹

³⁶ Metzger, *Lexical Aids For Students of New Testament Greek*.

³⁷ Robert E. Van Voorst, *Building Your New Testament Greek Vocabulary* (Atlanta: Society of Biblical Literature, 2001).

³⁸ Robinson, *Mastering Greek Vocabulary*.

³⁹ Trenchard, *The Student’s Complete Vocabulary Guide to the Greek New Testament*.

⁴⁰ Scott et al., *Reading New Testament Greek*.

⁴¹ Metzger, *Lexical Aids For Students of New Testament Greek* 13–14.

ἀκολουθέω	I follow
ἀναβαίνω	I go up
ἀπόλλυμι	I destroy; <i>middle</i> , I perish
ἄρχω	I rule; <i>middle</i> , I begin
ἕκαστος, -η, -ον	each
ἐκβάλλω	I cast out
ἐνώπιον	<i>gen.</i> before
ἔτι	still, yet, even
κάθημαι	I sit
καιρός, -οῦ, ὁ	time, an appointed time, season

Scott organizes his lists somewhat differently; under each frequency heading the Greek vocabulary words are organized under Verbs, Nouns, and Other Words. So the category “Words Occurring 97 to 83 Times” begins:⁴²

<i>Verbs</i>	
γεννάω	to beget, to bear
διδάσκω	to teach
περιπατέω	to walk
<i>Nouns</i>	
τὸ αἷμά, τοῦ αἵματος	blood
ὁ ἄρτος, τοῦ ἄρτου	loaf of bread, food
ἡ οἰκία, τῆς οἰκίας	house, family
<i>Other Words</i>	
ἐνώπιον	in front of, in the opinion of
ἔτι	still, in addition
μηδεῖς, μηδεμία, μηδέν	no one, nothing

The problem with such decontextualized lists is that the mind must shift to a different semantic concept for each lexical entry. While a few students may be able to learn vocabulary without problems from such word lists, most will simply cram to learn the vocabulary words for a test and then promptly forget them.

Cognate word groups are used both by Robinson (by frequency) and Trenchard (by alphabetical order) to organize their vocabulary lists. For example, this is an abbreviated entry from Robinson for a cognate group used 84 times:⁴³

σθεν	strong
10 ἀσθένεια ας	weakness
25 ἀσθενέω	be weak, be sick
ἀσθνήμα ματος	weakness
25 ἀσθενῆς ἐς	weak, sick
σθενόω	strengthen

This approach at least has linguistic organization to commend it. However, for beginning and intermediate students, the use of Greek cognate groups is still too “foreign” for the necessary memory associations to be made. Like the word frequency approach, it is also too heavily dependent on rote

⁴² Scott *et al.*, *Reading New Testament Greek* 11–12.

⁴³ Robinson, *Mastering Greek Vocabulary* 72.

memorization, which was earlier seen to be “shallow” and of limited usefulness for more complex vocabulary acquisition.

2. *Vocabulary acquisition through semantic domains.* If students instead utilized a word list that was classified by domains, they would be able to focus on one semantic concept encompassing a group of words. For example, see the following example from domain 1. “Geographical Objects and Features” in subdomain J. “Bodies of Water.”

θάλασσα, ης, ἡ	sea, lake (91)
παραθαλάσσιος, α, ον	by the sea or lake (1)
διθάλασσος, ον	between the seas (1)
λίμνη, ης, ἡ	lake (10)
λιμὴν, ἑνος, ὁ	harbor (2)
πέλαγος, ους, τό	open sea {archipelago} (2)
ποταμός, οὔ, ὁ	river (17)
ποταμοφόρητος, ον	carried away by a river (1)
πηγή, ῆς, ἡ	spring (11)

Here students are introduced to nine words with related meanings. This type of word list allows students to use mnemonic qualities of association and concept continuity for a more productive approach to vocabulary acquisition. Four of the words are used 10 or more times. Students also learn four cognate words that, while used infrequently, are easily recognized. The student also learns one low frequency word that has an English cognate. In addition to greater ease of memorization, the semantic domains approach prepares students better for the sight recognition of low frequency words.

Incidental vocabulary acquisition was earlier deemed to be the ideal. Counting is one area in which children soon acquire vocabulary naturally. However, in word frequency lists or cognate word groups the Greek vocabulary of numbers is dissociated from its logical numerical sequence. This is where the semantic domains approach is especially useful. Domain 60 contains all the Greek words related to numbers. In subdomain B are the cardinals (given up to 12):

εἷς, μία, ἕν	one (344)
δύο	two (135)
τρεῖς, τρία	three (68)
τέσσαρες	four (41)
πέντε	five (38)
ἕξ	six (13)
ἑπτά	seven (88)
ὀκτώ	eight (8)
ἐννέα	nine (5)
δέκα	ten (25)
ἑνδεκα	eleven (6)
δώδεκα	twelve (75)

Through this approach students can more easily memorize numbers, even by composing a song or chant like children do. Although several cardinals are of low frequency, with their cognates among the ordinals in the following subdomain C, all the numbers then have a frequency of more than 10.

Another advantage to this approach is that synonyms and antonyms are usually found in the same or proximate domains or subdomains. An example is from 81B “High, Low, Deep”:

ὑψόω	I lift up; cf. 87C: I exalt (20)
ὔψος, ους, τό	height; cf. 1B: on high (6)
ὔψωμα, τος, τό	height (2)
ὑψηλός, ή, όν	high; cf. 88A': arrogant, proud (11)
βάθος, ους, τό	depth (8)
βαθύς, εἶα, ύ	deep (4)
βαθύνω	I go deep (1)

Here two antonymic cognate groups are found composed of verbs, nouns, and adjectives. A danger, however, exists in using such semantic fields in vocabulary acquisition—a phenomenon called cross-association. According to Schmitt, antonyms (rich/poor), synonyms (love/like), and words from closely related semantic groupings (days of the week) are particularly at risk of cross-association. He cites Nation's suggestion that the best way to avoid cross-association is “to teach the most frequent or useful word of a pair first (e.g., *deep*), and only after it is well established introducing its partner(s) (e.g., *shallow*).”⁴⁴ Since ὑψηλός (“high”) and its cognates are used more often in the Greek NT, these words should be learned first to minimize cross-association.

3. *Learning low frequency and cognate words.* *Mastering New Testament Greek Vocabulary*, besides presenting high frequency words in a more easily remembered way, also introduces cognate words used fewer than 10 times. Such words are usually found in the same domain(s). For example, in Domain 1E νέφος, meaning “cloud” and used only 1 time, is found. It is listed under its cognate νεφέλη, which is used 25 times. This group of low frequency cognate words totals 1,557.

Cognate words within groups totaling more than 10 occurrences are also included. For example, in Domain 1I the Greek cognates νῆσος meaning “island” (9) and νησίον meaning “small island” (1) are presented. The ἐπιποθέω cognate group in Domain 25B is an example of the limitations of numerical word lists. ἐπιποθέω occurs only 9 times, so would be excluded from lists based on 10 occurrences. Yet with its two related nouns and an adjective, the cognate group occurs 13 times. Such cognate groups total 505 words.

Recognizable also are the 132 words directly transliterated into English. An example is ἀήρ (“air”), which is used only 7 times, found in Domain 2B. Another group totaling 93 words consists of less familiar English cognates. These are enclosed in braces { . . . } as in the entry in Domain 1H for σπήλαιον meaning “cave” {spelunker}. The final Domain 93 presents the proper names used in the NT. These should be easily recognized, as they are largely transliterated in the English Bible. These total 554 words.

⁴⁴ Schmitt, *Vocabulary in Language Teaching* 147.

V. CONCLUSION

Vocabulary acquisition is a critical aspect of second language learning. However, scholars and teachers have often de-emphasized its importance both in research and in the classroom. Yet students consider vocabulary acquisition as one of their highest priorities. Current Greek vocabulary tools are based on word frequency lists and cognate word groups, both shown to be ineffective ways to gain and retain L2 vocabulary. This article introduces a new tool for learning biblical Greek vocabulary organized by semantic domains. *Mastering New Testament Greek Vocabulary* introduces students to 3,911 words—72% of all the words in the Greek NT. Its vocabulary acquisition approach is pedagogically superior to other tools and better facilitates long-term retention for students.