

Word Lists and Vocabulary Teaching: Options and Suggestions

Michael Lessard-Clouston

Biola University, Cook School of Intercultural Studies, Applied Linguistics & TESOL

13800 Biola Avenue, La Mirada, CA 90639 U.S.A.

michael.lessard-clouston@biola.edu

0. Introduction/Outline 1) Reflecting on/discussing word lists and language teaching
2) Background: Some context from the literature 3) What are some important lists?
4) How have or might such lists be used? 5) Discussion: Further issues/possibilities
to consider 6) Conclusion (question & answer time) 7) References/Further reading

1. Reflection/Discussion (See separate sheet with questions; we'll discuss them briefly)

2. Background: Some context from the literature

- The role of vocabulary in ESL learning and teaching has been recognized for some time, and a significant amount of related research has appeared in the last two decades or so (Lessard-Clouston, 2013; Nation, 2013; Zimmerman, 2009). In particular, word lists exist for general English (West's, 1953, general service list GSL) and academic vocabulary in English (Xue & Nation's, 1985, university word list UWL & Coxhead's, 2000, academic word list AWL). Tables 1 and 2 from Lessard-Clouston (2012/2013) offer a summary (see pp. 2-3), including 5 general and 8 subject-specific lists, respectively, for vocabulary teaching.
- Yet the last 3 years has included the release of some additional and more up-to-date general, academic, and subject-specific lists that I would like to introduce here (pp. 4-5).
- Within communicative language teaching, vocabulary learning has tended to be done incidentally, though more recently there's been a call for more explicit teaching of words and vocabulary learning strategies (e.g., Zimmerman & Schmitt, 2005). One challenge with English is its huge vocabulary, which requires focus and some clear guidelines. One way to approach what vocabulary to teach is to consider the new GSLs, AVL, and other lists. One question is to consider if one is working in a more general, academic (EAP), or specific (ESP) program, and what the interests and needs are of the students, given their goals.
- In research with undergraduates and graduates, time and again studies have indicated that ESL/EFL students lack essential vocabulary knowledge not just for reading, but also for listening, speaking, and writing in the target language (e.g., Liu & Nesi, 1999; Nation & Waring, 1997; Nurweni & Read, 1999; Schmitt, 2008, 2010; Ward, 1999, 2007, 2009a).
- Given the availability of good lists, what has *research* shown? Elgort (2011) indicated that retention of vocabulary learned deliberately with lists is better than from incidental learning. Gholami and Khezrlou (2013/2014) reviewed the use of semantic and thematic lists for their students in Iran, concluding the use of such word lists "can be very promising for the understanding of" texts or concepts (p. 158). In using the AWL to help 185 Japanese university students in Tokyo learn English, Yamamoto (2013) noted, "the benefits of vocabulary-list learning are to gain not only receptive vocabulary knowledge, but also productive vocabulary knowledge as well as to increase learners' breadth and depth of vocabulary knowledge" (p. 33). MacGregor (2014) had similar results with children in Japan.
- Note the differences between lexemes, lemmas, and word families when considering lists.

3. What are some important lists? (Please see the following Tables on pp. 2-5.)

Table 1
Important and Recent Word Lists for Vocabulary Teaching “At a Glance”

<i>Word List</i>	<i>Source/ Reference</i>	<i>Focus, Purpose(s), Example Words, and Online Information</i>	<i>Comments</i>
General Service List (GSL)	West (1953) (Also included in Nation, 2008, Appendix 1.)	A list of vocabulary families reflecting the 2,000 most frequent words in English and representing an average of “around 82 per cent coverage” of various types of texts (Nation & Waring, 1997, p. 15). Further divided into the 1K (e.g., <i>act, behind, choose</i>) and 2K (<i>delight, entertain, firm, greet</i>). Used as the basis for many graded readers and other ESL/EFL materials. See http://jbauman.com/aboutgsl.html for a frequency-ranked version.	An old but often cited list. Still the best we have for high frequency.
University Word List (UWL)	Xue and Nation (1984)	An 836-item academic vocabulary list (e.g., <i>accompany, ignore, indicate, occur</i>) that compiles academic English common to a variety of disciplines but excluded from the GSL. Especially useful for academic reading and provides on average some 8.5% coverage of academic texts (Nation & Waring, 1997). Divided into sublists based on frequency. The 11 sublists are available online at http://www.auburn.edu/~nunnath/engl6240/wlistuni.html .	Suited to humanities? Now largely replaced by the AWL.
Academic Word List (AWL)	Coxhead (2000) (Included in Coxhead, 2006, as Appendix 1. See also Coxhead, 2011.)	A general-purposes academic word list, particularly for reading, with 570 word families that are not included in the GSL but that have wide range in academic texts, across disciplines (based on corpus research in arts, commerce, law, and science). Further divided into 10 sublists that reflect frequency and range. Examples: <i>require, income, structure, policy, economy, process</i> . http://www.victoria.ac.nz/lals/resources/academicwordlist/default.aspx .	Generally replaces the UWL. Compare Hyland and Tse (2007). ²
First 100 Spoken Collocations (First 100)	Shin and Nation (2008)	A frequency-ranked list of the 100 most frequent spoken collocations in 10 million spoken words in the British National Corpus (BNC). Examples: <i>you know (1), I think (that) (2), a lot of (6), thank you (8)</i> . Chosen using six criteria, including frequency, word type, and so on. An Appendix (pp. 346-348) in the article online at http://eltj.oxfordjournals.org/content/62/4/339.abstract .	Focuses on spoken collocations; conversation emphasis.
Phrasal Expressions List (PHRASE List)	Martinez and Schmitt (2012)	A frequency-ranked list of “the 505 most frequent non-transparent multiword expressions in English, especially for receptive use” (p. 299), chosen using three core and three auxiliary criteria, such as a lack of semantic transparency. Examples: <i>have to (1), there is/are (2), such as (3), I mean (9), a lot (10)</i> . Ranked according to 1K levels of the BNC, and noting the prevalence of each phrase in the BNC’s spoken and written data. Available as a supplementary Word file to the article online at http://apliij.oxfordjournals.org/content/33/3/299/suppl/DC1 .	Draws on both oral and written examples. Good for discourse markers and so on.

Source: Lessard-Clouston (2012/2013), page 292.

Table 2
Recent Subject-Specific Lists for
Vocabulary Learning and Teaching “At A Glance”

Word List	Source/Reference	Focus, Purpose(s), Example Words, and Online Information	Comments
Business Word List (BWL1)	Konstantakis (2007)	An alphabetized 560-word list of items appearing 10 or more times in five books in Nelson's (2000) Business English Published Materials Corpus but excluded from the GSL and AWL. Examples: <i>conglomerate, manpower, multinational, subsidiaries</i> . Reading focus. Available as an Appendix (pp. 98-101) to the article online at http://www.publius.us.es/en/node/177 .	See also Hsu (2011a), Walker (2011).
Science Word List (SWL)	Coxhead and Hirsh (2007)	For undergraduates, especially for reading, this 318-word general science list represents 3.79% of the words in a corpus of 1.5 million words of texts from 14 different science subject areas. Further divided into six sublists. Examples: <i>anatomy, diffuse, incubate, molecule, serum</i> . Click “EAP Science List” at http://www.victoria.ac.nz/lals/staff/averil-coxhead.aspx .	See also Cheng (2011).
Medical Academic Word List (MAWL)	Wang, Liang, and Ge (2008)	A 623-item list of high-frequency and wide-coverage words in a 1 million-plus corpus of academic medical research articles representing 32 medical subject areas. Excludes items from the GSL but not those from the AWL (e.g., <i>analyze, concentrate</i>). Medical examples: <i>cell, protein, gene, cancer, incubate</i> . MAWL appeals most to graduate students pursuing medical or research degrees, for reading and writing. doi:10.1016/j.esp.2008.05.003	See also Chen & Ge (2007). Replace AWL for medical students?
AgroCorpus List	Martinez, Beck, and Panza (2009)	A 92-word-family list of items from the AWL that were most frequent in the 826,416-word AgroCorpus of agriculture research articles. Examples include: <i>environmental, accumulation, region, variation, chemical</i> . Purpose is for reading and writing. (Authors highlight how individual words may be general or technical depending on context and argue many GSL words were used in a technical sense in their corpus, while others [e.g., <i>study, results</i>] are used academically, even more than synonyms from the AWL [such as <i>research, outcomes, etc.</i>]). doi:10.1016/j.esp.2009.04.003	Argues the role of the GSL for academic study (especially reading and writing).
Basic Engineering List (BEL)	Ward (2009a)	A 299-item basic lexical list drawn from an engineering corpus of 271,000 words formed from extracts of key textbooks for undergraduates in five engineering subfields. It does <i>not</i> exclude GSL (216) or AWL (78) items, and thus is argued to be a nontechnical list of special interest to those who have not yet studied specialist engineering at the undergraduate level, particularly for reading. Examples include: <i>system, calculate, value, flow, process, column, factors</i> . An Appendix (p. 181): doi:10.1016/j.esp.2009.04.001	See also Mudraya (2006), Ward (2009b). Use with GSL/AWL?
Business Word List (BWL2)	Hsu (2011a)	A 426-word list of the most frequent items appearing in a very large Business Research Article Corpus at least 270 times, ranked according to range, frequency, and coverage. Excludes words from the British National Corpus below the 3,000 level. Includes 12 mathematics-/stats-related (<i>alpha, coefficient, median</i>) and 4 computer (<i>download, online, software, web</i>) items, as well as 6 compound words (e.g., <i>database, keyword, workplace</i>), and 4 abbreviations (<i>Euro, GDP, ID, LTD</i>). Available as an Appendix (pp. 92-99) online at http://asian-esp-journal.com/Dec-2011-wh.php .	See also Hsu (2011b).
Theological Word List (TWL)	Lessard-Clouston (2010)	Used in research of 23 90-minute academic theology lectures, the TWL has 100 items and is further divided into TWL1 (58 items) and TWL2 (42) according to frequency. For Christian theology, examples include: <i>ecclesiology, gnosticism, omnipotence, polytheism, theodicy</i> . Shows words used in handouts, on the board. Also used in research on students' technical vocabulary learning and disciplinary writing (Lessard-Clouston, 2006, 2008, 2012). Appendix (pp. 318-319): doi:10.1016/j.jesp.2010.09.001	See Ryan (2012) for another list (which does not exclude GSL/AWL).
Business Word List (BWL2)	Hsu (2011a)	A specialist word list of 588 word families drawn from a newspaper corpus of 579,849 words. Excludes proper names and GSL items that did not have wide range in the corpus. Items are grouped into 10 sublists according to range. Examples: <i>campaign, financial, individual, job, project, team</i> . See the Appendix (pp. 176-182): http://jalt-publications.org/j/articles/263 -newspaper-word-list-specialised-vocabulary-reading-newspapers.	Useful, focused list for current news and journalism.

Source: Lessard-Clouston (2012/2013), pages 293-294.

‘At A Glance’: Ten Important and Recent Word Lists for Vocabulary Teaching

The following chart presents a synopsis of important points concerning 4 new general and 6 new specialized word lists for ESL & EFL instructors in teaching English vocabulary. First is the name (and acronym) of the list, followed by the source reference for further details, plus the focus, purpose, and web information (if available), along with some potentially helpful comments.

List	Source/Reference	Focus/Purpose(s)/Online Information	Comments
New General Service List (NGSL)	Browne, C. (2014a). A New General Service List: The better mousetrap we’ve been looking for? <i>Vocabulary Learning and Instruction</i> , 3(2),1-10. doi:10.7820/vli.v03.2.browne	A list of 2,801 general English lexemes reflecting the most frequent words in English within a 274 million word subset of the Cambridge English Corpus (CEC). The focus is on second language learners’ needs. This list provides 84.24% coverage of the CEC corpus used, and was developed following updated criteria from West (1953), incorporating both quantitative and qualitative data. Further information and the complete list are available for download at http://www.newgeneralservicelist.org/ . [Meant to be used with the 983-word New Academic Word List.]	Based on spoken & written American & British English. Browne (2014b).
New General Service List (new-GSL)	Brezina, V., & Gablasova, D. (2015). Is there a core general vocabulary? Introducing the <i>New General Service List</i> . <i>Applied Linguistics</i> , 36, 1-22. doi:10.1093/applin/amt018	A list of 2,494 general English lemmas, reflecting the most frequent words in a collection of four corpora (LOB, BNC, BE06, EnTenTen12), which represent about 12.1 billion words, based on analyses of three quantitative measures: frequency, dispersion, and distribution across the four corpora. Coverage of the list in the four corpora is 80.1 to 81.7%. The alphabetical list with frequency information distinguishing nouns and verbs is online at http://applij.oxfordjournals.org/content/early/2013/08/25/applin.amt018/suppl/DC1 . For details, see also http://corpora.lancs.ac.uk/vocab/ .	Best suited to British English and geared largely to written English.
Academic Vocabulary List (AVL)	Gardner, D., & Davies, M. (2014). A new academic vocabulary list. <i>Applied Linguistics</i> , 35, 305-327. doi:10.1093/applin/amt015	A list of 3,015 lemmas distinguished by part of speech, representing the most frequent words in the 120 million word academic subcorpus of the Corpus of Contemporary American English (COCA). The AVL represents about 14% of the academic materials in the COCA and the British National Corpus. Further subdivided into nine important disciplines: education, humanities, history, social sciences, philosophy/religion/psychology, law/political science, science and technology, medicine/health, and business/finance. See http://www.academicvocabulary.info/ .	A word families version is also available. Excellent online support.
PHrasal VERb Pedagogical List (PHaVE list)	Garnier, M., & Schmitt, N. (2015). The PHaVE list: A pedagogical list of phrasal verbs and their most frequent meaning senses. <i>Language Teaching Research</i> , 19, 645-666. doi:10.1177/1362168814559798	An alphabetized and frequency ranked list of 150 phrasal verbs which cover 75% of the occurrences for each in the Corpus of Contemporary American English (COCA). Key meaning senses are outlined, along with definitions and example sentences learners can easily access. Alphabetical and frequency ranked lists appear in the article as Appendices (pp. 662-666). A simple users’ manual is also available online at http://www.norbertschmitt.co.uk/uploads/the-phave-list-users-manual.pdf .	Useful for practice, noting different senses. See also Liu (2011).

Business Formulas List (BFL)	Hsu, W. (2014). A formulaic sequences list for prospective EFL business postgraduates. <i>Asian ESP Journal</i> , 10(2), 114-162.	A 1,187 item list of 2- (316), 3- (612), 4- (198), 5- (50) and 6- (11) word formulaic sequences with 29.53% coverage of the running words in a 7.62 million word corpus of 2,200 business research articles representing 20 business sub-disciplines. Top 10 2-, 3-, and 4-word sequences list is on pp. 127-128. See pp. 164-162 of the article for the full Appendix list (available at http://asian-esp-journal.com/2014/12/01/december-2014/).	To be used with Hsu (2011a). Great list of English chunks.
Computer Science Word List (CSWL)	Minshall, D. E. (2013). <i>A computer science word list</i> (Unpublished Master's thesis). Swansea University, Swansea, Wales.	A 433 word list of items from a 3.6+ million word corpus of journal articles and conference proceedings representing 10 sub-disciplines of computer science, with 5.81% coverage. A 23-item 2- to 3-word Computer Science Multi-Word List was also created in the analysis. The award-winning thesis is available at https://www.baleap.org/media/uploads/dissertation-awards/2014/Daniel_Minshall_Dissertation_Final_Draft.pdf .	Intended to supplement the GSL and AWL. A technical word list.
Engineering English Word List (EEWL)	Hsu, W. (2014). Measuring the vocabulary load of engineering textbooks for EFL undergraduates. <i>English for Specific Purposes</i> , 33, 54-65. doi:10.1016/j.esp.2013.07.001	For beyond the first 2,000 most frequent English words, the EEWL includes 729 frequently occurring word families that cover 14.3% of the total words in a 4.57 million word corpus of 100 textbooks from 20 engineering subject areas. The EEWL includes generic, specialized, and technical words that may be useful to science and technology instructors preparing engineers. The study found a wide range of vocabulary demands in engineering fields.	See also Graham's (2014) 40-item Engineering Phrases List.
Environmental Academic Word List (EAWL)	Liu, J., & Han, L. (2015). A corpus-based environmental academic word list building and its validity test. <i>English for Specific Purposes</i> , 39, 1-11. doi:10.1016/j.esp.2015.03.001	A list of 458 word families beyond the most frequent 2,000 words in English, within an environmental science corpus of 200 texts from 10 subject areas, totaling 862,242 words. The EAWL provides 15.43% coverage in the environmental science corpus. It also shares 318 words with the AWL, though with different frequencies and ranges, and better coverage of the environmental science corpus than items on the AWL.	Replace AWL for environmental science students?
Nursing Academic Word List (NAWL)	Yang, M.-N. (2015). A nursing academic word list. <i>English for Specific Purposes</i> , 37, 27-38. doi:10.1016/j.esp.2014.05.003	A 1 million+ word Nursing Research Articles Corpus (NRAC) of 252 English research articles was used to create a 676 word family Nursing Academic Word List which offers 13.64% coverage, which is more than the AWL and Wang et al.'s (2008) MAWL. The most frequently appearing words of each family are listed alphabetically in an Appendix (pp. 36-37).	Compared with Wang, Liang, and Ge (2008).
Medical Word List (MWL)	Hsu, W. (2013). Bridging the vocabulary gap for EFL medical undergraduates: The establishment of a medical word list. <i>Language Teaching Research</i> , 17, 454-484. doi:10.1177/1362168813494121	A Medical Word List of 595 frequent word families beyond the British National Corpus' (BNC) 3,000 most frequent words, in a Medical Textbook Corpus of 15+ million words. The MWL offers 10.72% coverage of the corpus, and is included as an Appendix (pp. 473-484) in the article, which notes the range, frequency, BNC list, and percentage coverage for each MWL item. Aimed at medical novices, the MWL includes both sub-technical and lay-technical vocabulary, to bridge the gap before technical terms.	Hsu (2013) shows MWL items that reflect the various degrees of technicality.

4. How have or might such lists be used?

- The NGSL and new-GSL are relevant to all English language learners, as they represent the most frequent and useful vocabulary in speech and writing. The AVL is especially helpful for EAP students, and should be useful for students preparing for academic study.
- Some teachers have given their students the actual word lists (or subsections of them) and had students decide which words to focus on. This could be guided/supplemented.
- Teachers have used word lists to guide their choice of readings and to focus students' attention on target vocabulary. Emphasize both comprehension and production!
- Some teachers create their own lists, as their curriculum/focus suggests (Carlson, 1999).
- One increased emphasis is on chunks or phrases of vocabulary, in formulaic sequences discussed in several studies and lists (including the PHaVE list, the BFL, CSWL, and Graham's, 2014, engineering phrases list). As vocabulary should ideally be taught in sentence contexts and examples, these phrases/formulaic sequences may be helpful.
- See Foley (2009) and Lessard-Clouston (2012/2013) for further ideas on using word lists.
- Good vocabulary teaching principles apply: vocabulary learning is incremental, and many exposures to new vocabulary are necessary. Thus vocabulary learning strategies can be implemented in using lists, and vocabulary practice (productive, as well as receptive) builds on the productive use of words – see Lessard-Clouston (2013), Nation (2013), etc.

5. Discussion: Further issues/possibilities to consider

- Choose text books that are specifically focused on particular lists. More will appear...
- Corpus linguistics and data-driven learning in language teaching require some knowledge of basic principles and tools available. Lessard-Clouston & Chang (2014) offer an overview.
- Teachers can and should use available online resources along with word lists, such as:
 - Compleat Lexical Tutor: <http://www.lextutor.ca/>
 - Corpus of Contemporary American English (COCA): <http://corpus.byu.edu/coca/> and its <http://www.wordandphrase.info/> & <http://www.wordfrequency.info/> sites
 - WebCorp: <http://www.webcorp.org.uk/> (including Wordlist tools)
- Always remember that contextualized learning is most effective! Adapt lists for your use in teaching and for your *students'* learning! These lists are geared for particular audiences.
- Two additional lists not introduced much (except in passing) above include:
 - the 963-item New Academic Word List (based on a corpus of 288 million words) <http://www.newacademicwordlist.org/>
 - Graham's (2014) 40-item Engineering Phrases List (see pp. 70-90 in the file below) <http://thailandtesol.org/Picture/file/ThaiTESOL%20Proceedings%202014.pdf>

6. Conclusion

- Question and answer time
- Comments, feedback, and suggestions of other resources!

7. References/Further reading

- Browne, C. (2014b). The New General Service List version 1.01: Getting better all the time. *Korea TESOL Journal*, 11(1), 35-50.
- Carlson, D. (1999). Creating word frequency lists for specific purposes. *The Language Teacher*, 23(4), 5-8.
- Chen, Q., & Ge, G.-C. (2007). A corpus-based lexical study on frequency and distributions of Coxhead's AWL word families in medical research articles (RAs). *English for Specific Purposes*, 26, 502-514. doi:10.1016/j.esp.2007.04.003
- Cheng, T.-Y. (2011). The ability of Taiwanese high-achieving university freshmen to comprehend fundamental English science vocabulary. *Asian ESP Journal*, 7(4), 5-35.

- Chung, T. M. (2009). The newspaper word list: A specialised vocabulary for reading newspapers. *JALT Journal*, 31, 159-182.
- Coxhead, A. (2000). A new academic word list. *TESOL Quarterly*, 34, 213-238. doi:10.5054/tq.2011.254528
- Coxhead, A. (2006). *Essentials of teaching academic vocabulary*. Boston: Houghton Mifflin.
- Coxhead, A. (2011). The Academic Word List 10 years on: Research and teaching implications. *TESOL Quarterly*, 45, 355-361. doi:10.5054/tq.2011.254528
- Coxhead, A. (2016). Reflecting on Coxhead (2000), "A New Academic Word List." *TESOL Quarterly*, 50, 181-185. doi:10.1002/tesq.287
- Coxhead, A., & Hirsh, D. (2007). A pilot science-specific word list. *Revue Française de Linguistique Appliquée*, 12(2), 65-78.
- Elgort, I. (2011). Deliberate learning and vocabulary acquisition in a second language. *Language Learning*, 61, 367-413. doi:10.1111/j.1467-9922.2010.00613.x
- Foley, A. (2009). Using academic word lists in the communicative classroom. *English Australia Journal*, 25(1), 17-26.
- Gholami, J., & Khezrlou, S. (2013/2014). Semantic and thematic list learning of second language vocabulary. *The CATESOL Journal*, 25(1), 151-162.
- Graham, D. (2014). The engineering phrases list: Toward teachable ESP phrases. In P. Subphadoongchone (Ed.), *The 34th Thailand TESOL International Conference Proceedings 2014* (pp. 70-90). Chiang Mai, Thailand: ThaiTESOL.
- Hirsh, D., & Coxhead, A. (2009). Ten ways of focusing on science-specific vocabulary in EAP. *English Australia Journal*, 25(1), 5-16.
- Hsu, W. (2011a). A business word list for prospective EFL business postgraduates. *Asian ESP Journal*, 7(4), 63-99.
- Hsu, W. (2011b). The vocabulary thresholds of business textbooks and business research articles for EFL learners. *English for Specific Purposes*, 30, 247-257. doi:10.1016/j.esp.2011.04.005
- Hyland, K., & Tse, P. (2007). Is there an "academic vocabulary"? *TESOL Quarterly*, 41, 235-253. doi:10.1002/j.1545-7249.2007.tb00058.x
- Konstantakis, N. (2007). Creating a business word list for teaching business English. *Estudios de lingüística inglesa aplicada*, 7, 79-102.
- Lessard-Clouston, M. (2006). Breadth and depth specialized vocabulary learning in theology among native and non-native English speakers. *Canadian Modern Language Review*, 63, 175-198. doi:10.3138/cmlr.63.2.175
- Lessard-Clouston, M. (2008). Strategies and success in technical vocabulary learning: Students' approaches in one academic context. *Indian Journal of Applied Linguistics*, 34, 31-63.
- Lessard-Clouston, M. (2009). *Specialized vocabulary learning and use in theology*. Köln, Germany: Lambert Academic Publishing.
- Lessard-Clouston, M. (2010). Theology lectures as lexical environments: A case study of technical vocabulary use. *Journal of English for Academic Purposes*, 9, 308-321. doi:10.1016/j.jeap.2010.09.001
- Lessard-Clouston, M. (2012). Technical vocabulary use in English-medium disciplinary writing: A native/non-native case study. *The Linguistics Journal*, 6, 127-150.
- Lessard-Clouston, M. (2012/2013). Word lists for vocabulary learning and teaching. *The CATESOL Journal*, 24(1), 287-304.
- Lessard-Clouston, M. (2013). *Teaching vocabulary*. Alexandria, VA: TESOL International Association.
- Lessard-Clouston, M., & Chang, T. (2014). Corpora and English language teaching: Pedagogy and practical applications for data-driven learning. *TESL Reporter*, 47, 1-20.
- Liu, D. (2011). The most frequently used English phrasal verbs in American and British English: A multicorpus examination. *TESOL Quarterly*, 45, 661-688. doi:10.5054/tq.2011.247707
- Liu, J., & Nesi, H. (1999). Are we teaching the right words? A study of students' receptive knowledge of two types of vocabulary: "Subtechnical" and "technical". In H. Bool & P. Luford (Eds.),

- Academic standards and expectations: The role of EAP* (pp. 141-147). Nottingham, UK: Nottingham University Press.
- MacGregor, A. (2014). Young learners and lexical awareness: Children's engagement with wordlists and concordances. *TESOL Journal*, 5, 120-149. doi:10.1002/tesj.102
- Martínez, I. A., Beck, S. C., & Panza, C. B. (2009). Academic vocabulary in agriculture research articles: A corpus-based study. *English for Specific Purposes*, 28, 183-198. doi:10.1016/j.esp.2009.04.003
- Martinez, R., & Schmitt, N. (2012). A phrasal expressions list. *Applied Linguistics*, 33, 299-320. doi:10.1093/applin/ams010
- Mudraya, O. (2006). Engineering English: A lexical frequency instructional model. *English for Specific Purposes*, 25, 235-256. doi:10.1016/j.esp.2005.05.002
- Nation, I. S. P. (2008). *Teaching vocabulary: Strategies and techniques*. Boston: Heinle.
- Nation, I. S. P. (2013). *Learning vocabulary in another language* (2nd ed.). Cambridge: Cambridge University Press.
- Nation, P., & Waring, R. (1997). Vocabulary size, text coverage and word lists. In N. Schmitt & M. McCarthy (Eds.), *Vocabulary: Description, acquisition and pedagogy* (pp. 6-19). Cambridge: Cambridge University Press.
- Nelson, M. (2000). *A corpus-based study of business English and business English teaching materials* (Unpublished doctoral dissertation). University of Manchester, England.
- Nurweni, A., & Read, J. (1999). The English vocabulary knowledge of Indonesian university students. *English for Specific Purposes*, 18, 161-175. doi:10.1016/S0889-4906(98)00005-2
- Ryan, G. (2012). *Technical vocabulary acquisition through texts: A corpus and a case study in theology classrooms*. Köln, Germany: Lambert Academic Publishing.
- Schmitt, N. (2008). Instructed second language vocabulary learning. *Language Teaching Research*, 12, 329-363. doi:10.1177/1362168808089921
- Schmitt, N. (2010). *Researching vocabulary*. New York: Palgrave Macmillan.
- Shin, D., & Nation, P. (2008). Beyond single words: The most frequent collocations in spoken English. *ELT Journal*, 62, 339-348. doi:10.1093/elt/ccm091
- Walker, C. (2011). How a corpus-based study of the factors which influence collocation can help in the teaching of business English. *English for Specific Purposes*, 30, 101-112. doi:10.1016/j.esp.2010.12.003
- Wang, J., Liang, S.-I., & Ge, G.-C. (2009). Establishment of a medical academic word list. *English for Specific Purposes*, 27, 442-458. doi:10.1016/j.esp.2008.05.003
- Ward, J. (1999). How large a vocabulary do EAP engineering students need? *Reading in a Foreign Language*, 12, 309-323.
- Ward, J. (2007). EAP reading and lexis for Thai engineering undergraduates. *Journal of English for Academic Purposes*, 8, 294-301. doi:10.1016/j.jeap.2009.10.002
- Ward, J. (2009a). A basic engineering English word list for less proficient foundation engineering undergraduates. *English for Specific Purposes*, 28, 170-182. doi:10.1016/j.esp.2009.04.001
- Ward, J. (2009b). EAP reading and lexis for Thai engineering undergraduates. *Journal of English for Academic Purposes*, 8, 294-301. doi:10.1016/j.jeap.2009.10.002
- West, M. (1953). *A general service list of English words*. London: Longman, Green, and Company.
- Xue, G., & Nation, I. S. P. (1984). A university word list. *Language Learning and Communication*, 3, 215-229.
- Yamamoto, Y. (2013). The pedagogical implications of multidimensional vocabulary acquisition through deliberate vocabulary list learning. *Proceedings of Sophia University Linguistic Society*, 27, 17-36.
- Zimmerman, C. B. (2009). *Word knowledge: The vocabulary teacher's handbook*. Oxford: Oxford University Press.
- Zimmerman, C. B., & Schmitt, N. (2005). Lexical questions to guide the teaching and learning of words. *The CATESOL Journal*, 17, 164-170.

This is a work in progress. Please let me know if you have any suggestions of lists, resources, etc. Thank you!