

Vocabulary Education & Research Bulletin

Volume 2 Issue 1 • Spring 2013

To All Vocab SIG Members in Wordland,

Spring is around the corner, and we would like to welcome it with Volume 2(1) of VERB! We have spent a significant ($p < .05$) amount of time brainstorming new avenues for expanding the bulletin, and we hope that you enjoy what is to come. In this issue, we are introducing a new section. Imagine if you will, a town square; a public place where the people of the community gather and share the latest news. Whether it's information about food prices, recent weather, or a new birth in the family, it all happens in the same way: "Word of Mouth". Accordingly, Word of Mouth is a place for articles or resources relating to vocabulary teaching or research, but not necessarily the experiment itself. To help illustrate this idea, in the first article for this new section, TJ Boutorwick explains the open-source data-analysis language R, as well as reasons why it is superior to other, proprietary software.

Before that however, Keith Barrs starts us off strong by examining a subset of words from the JACET 8000. He categorizes the words by type of definition provided, namely loanwords used in the definition of the word. Next, Masaya Kaneko profiles common high school English textbooks' vocabulary to assess the necessity of *yakudoku*. Finally, Brian Strong shares results from his study involving a cognitive linguistic approach to learning phrasal verbs.

In addition to these four articles, the SIG news section is full of important information about the annual "SIGposium", as well as the first ever vocabulary conference at Victoria University of Wellington, NZ. (Believe us, this is one conference that you don't want to miss!). It also contains information about VLI, the SIG's other publication. If you have some research that you are writing and finding it difficult to fit into VERB's conciseness, please consider sending it to VLI.

On a final note, we would like to thank all of the authors and reviewers for taking time out of their busy schedules to help make this issue what it is. We hope you gain something from reading, and we look forward to more submissions in the future!

The VERB editors
Tomoko Ishii & TJ Boutorwick

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Short Papers

Categorising English loanwords in Japanese

Keith Barrs
keithbarrs[at]hotmail.com

Background

An analysis of the Japanese vocabulary shows a large sub-lexicon of English loanwords built directly into the language. In general, three specific terms are used to refer to these loanwords: (1) 英語外来語 (*eigo gairaigo*/English words coming from outside), (2) 英語外国語 (*eigo gaikokugo*/English foreign words) and (3) 和製英語 (*waseieigo*/made-in-Japan English words). The first term refers to words that have been completely integrated into Japanese, in terms of phonology, syntax, morphology etc., for example プレゼント (*purezento*/present). The second term refers to English words that are used in Japanese but which have minimal adaptation to the Japanese language and which may be unknown to a large part of Japanese society, for example タスクフォース (*tasuku fousu*/task force). The third term is applied to words that have been created in Japan from originally English language elements, for example ガッツポーズ (*gattsu pouzu*/guts pose), meaning a body stance taken in celebration of a victory (see Irwin, 2011 for a detailed description of these loanword varieties).

The importance of recognising the different categories of English loanwords is often acknowledged in the research literature (see Daulton, 2008, p. 57; Irwin, 2011, p. 10; Ringbom, 2007, p. 77), but so far there are almost no research studies which purposefully specify the English loanword category or categories being analysed (except Irwin, 2011). In the field of English education in Japan this has resulted in widely varying conceptualisations of the pedagogical benefit of the loanwords. A primary focus on *wasei eigo* tends to result in conceptualising *all* English loanwords as a hindrance to Japanese learners of English (Shepherd, 1995; Simon-Maeda, 1995), whereas a focus on *eigo gairaigo* tends to result in seeing English loanwords in general as having a facilitative effect (Daulton, 2008). This problem seems to be caused by the fact that it is difficult, if not almost impossible, to find lists of English loanwords that have been categorised into the three varieties outlined above.

While using the JACET 8000 list of high-frequency English language words in my teaching activities, I noticed an interesting linguistic phenomenon: English language words are sometimes defined in Japanese with the use of English loanwords. For example, entry 687 on the list, the English word 'process', is defined by the English borrowing プロセス (*purosesu*/process). These loanwords can be considered prime examples of the *eigo gairaigo* variety because they have been fully integrated into Japanese as cross-linguistic definitions of words, and therefore should be known and understandable to Japanese speakers (Irwin, 2011, p. 10). I decided to systematically analyse the JACET 8000 word list to collect together all these instances of *eigo gairaigo*, and in doing so to create a categorised list of *eigo gairaigo* words which could assist future research into English loanwords in Japan. This article reports on the findings made so far which cover the first 1000 words of the list.

Aims

The overall aim of this research is to record every instance of an English loanword used as a Japanese definition of the JACET 8000 words. This will produce a categorised list of the *eigo gairaigo* variety of loanwords

which can assist future research into English loanwords in Japan.

Methods

The JACET 8000 word list has been published in book form (「大学英語教育学会基本語リスト」に基づく JACET8000英単語/*The JACET 8000 English words based on the 'University English Education Society Basic Word List'*) with meta-linguistic data which includes Japanese language definitions of each entry. An analysis was conducted on the first 1000 words in the list by recording every instance of a katakana English loanword appearing as a definition. Future research will analyse the remaining 7000 words to create a complete list.

Sample

The data sample consisted of the first 1000 words of the JACET8000, those in Level 1 of the word list, starting with 'the' (position 1) and ending with 'audience' (position 1000). Future directions of the project will involve an examination of the entire 8000 word list which will not only allow the creation of a larger body of *eigo gairaigo*, but may also reveal interesting insights into the distribution of English loanword definitions across the different levels of the list.

Preliminary Results

The analysis of the first 1000 words resulted in the identification of 89 English loanwords being used as definitions for the English language items (shown in Table 1). This figure represents 8.9% of the total words analysed and suggests that if all 8000 words were studied, a relatively large list of *eigo gairaigo* could be produced. It is also interesting to note that the 300 most frequent words of English are rarely defined with an English loanword, a finding predicted by Hock and Joseph in their analysis of linguistic borrowing (1996, p. 257).

Table 1
English Loanwords used as Definitions at each 100 Word Level of the First 1000 Words.

Frequency Rank	N of Items	English Word Example (& Rank)	Loanword Definition
1-100	0	X	X
101-200	1	Show (143)	ショー
201-300	3	Group (220)	グループ分けする
301-400	11	Heart (380)	ハート
401-500	13	Program (443)	プログラム
501-600	10	Event (568)	イベント
601-700	16	Process (687)	プロセス
701-800	14	Hotel (720)	ホテル
801-900	9	Stress (849)	ストレス
901-1000	12	Guide (990)	ガイド
TOTAL	89 (8.9%)		

Conclusions and Future Directions

From this small scale study it was found that in the first 1000 words of the JACET 8000, 89 English loanwords have been used as Japanese definitions. As discussed earlier, these loanwords can be considered prime examples of *eigo gairaigo*, and can be compiled into a list which can assist ongoing research into English borrowing in the Japanese language. Future directions for this research involve expanding the inventory analysis to all words in the JACET

8000. This will help create a larger list of eigo gairaigo which I hope to make publicly available. This list can then be used for research into areas such as the semantic, morphological, phonological and syntactical changes that one specific variety of loanwords undergoes when integrated into Japanese.

References

- Aizawa, K., Ishikawa, S., & Murata, M. (Eds.). (2005). *JACET8000英単語* 「大学英語教育学会基本語リスト」に基づく [The JACET 8000 English words based on the 'University English Education Society Basic Word List']. Kiriharashoten.
- Daulton, F. E. (2008). *Japan's built-in lexicon of English based loanwords*. Clevedon: Multilingual Matters Ltd.
- Hock, H., & Joseph, B. (2009). *Language History, Language Change, and Language Relationship: An Introduction to Historical and Comparative Linguistics* (2nd ed.). Berlin: Walter de Gruyter & Co.
- Irwin, M. (2011). *Loanwords in Japanese*. Philadelphia: John Benjamins Publishing Company.
- Ringbom, H. (2007). *Cross-linguistic similarity in foreign language learning*. Clevedon: Multilingual Matters Ltd.
- Shepherd, J. W. (1995, February). Loanwords: A pitfall for all students. *The Internet TESL Journal*, 2(2). Retrieved from <http://iteslj.org/Articles/Shepherd-Loanwords.html>
- Simon-Maeda, A. (1995, December). Language awareness: Use/misuse of loan-words in the English language in Japan. *The Internet TESL Journal*, 1(2). Retrieved from <http://iteslj.org/Articles/Maeda-Loanwords.html>

Lexical frequency profiling of Japanese high school English reading textbooks

Masaya Kaneko
m-kaneko-tuj2005[at]cablenet.ne.jp

Background

A large-scale survey conducted by Koike (1985) revealed that around 80 percent of Japanese English teachers adopt a line-by-line translation method called *Yakudoku* in English reading classes. Nearly a decade later, Browne (1998) pointed out that the lexical load of high school English reading textbooks approved by the Ministry of Education, Culture, Sports, Science, and Technology (MEXT) might contribute to this over-reliance on the *Yakudoku* method. He found that the text coverage of top three selling high school English reading textbooks by the most frequent 2,000 English words (West, 1953) was around 78 percent although research suggests that at least 95 percent text coverage is required to gain adequate comprehension of reading texts (Nation, 2001). Browne (1998) suggested that this disproportionate amount of low-frequency vocabulary appearing in the reading texts may turn reading into translation.

Aim

The present study replicates Browne's study (1998) and attempts to identify any differences by examining the lexical frequency of MEXT approved high school English reading textbooks for the 2012 school year. The vocabulary coverage of the top three selling English reading textbooks by high-frequency English vocabulary is examined with RANGE (Heatley, Nation, & Coxhead, 2002).

Methods

Material

ELEMENT English Reading READING SKILLS BASED (Okuma, Le Pavoux, Takahashi, Miyashiro, & Ives, 2008), *CROWN English Reading New Edition* (Shimozaki et al.,

2008), and *BIG DIPPER Reading Course* (Matsusaka et al., 2008) were selected for the analysis because these are the most widely used current MEXT approved high school English reading textbooks (Naigaikyoku, 2011).

As Browne did in the previous study (1998), one fourth of the total chapters of each textbook were analyzed in the present study. A randomly selected chapter and either every third or fourth subsequent chapters (depending on the total number of chapters) were examined. For instance, Lesson 1, 5, 9, 13, and 17 in the *ELEMENT* textbook were analyzed. Since *ELEMENT* contains 20 chapters called Lessons, five lessons constitute one fourth of the total chapters. Similarly, Lesson 1, 4, 7, and 10 from *CROWN* and Lesson 3, 7, 11, 15, and 19 from *Big Dipper* were analyzed.

RANGE and high-frequency vocabulary

RANGE (Heatley, Nation, & Coxhead, 2002) was used to calculate the proportion of high-frequency vocabulary appearing in the three reading textbooks. The computer program can be used to see what percentage of the words in texts is covered by certain word lists. The General Service List (West, 1953) and the Academic Word List (Coxhead, 2000) were used for the present study. Although the present study is almost identical to Browne's (1998) in the research design, this study used the Academic Word List (AWL) as a replacement of the University Word List (Xue & Nation, 1984).

Preliminary results

The analysis of the top three selling high school English reading textbooks via RANGE is summarized in Table 1. The most frequent 1,000 words provided an average of 82.29 percent coverage of the running words in the three reading textbooks. The most frequent 2,000 words accounted for an average of 88.27 percent of the total tokens. Thus, even if high school students knew all the most frequent 2,000 words, they would still encounter around 12 percent of unknown words.

Concerning the words outside high-frequency vocabulary, academic vocabulary (Coxhead, 2000) provided an average of 4.43 percent text coverage. Supposing that some advanced-level students have already acquired academic vocabulary as well as high-frequency vocabulary, they would still have to deal with around eight percent of the unknown words. This density of unknown words is almost identical to that of the entrance examination for Tokyo University. The author found in an unpublished study that high-frequency vocabulary plus academic vocabulary provided around 92.3 percent text coverage for the reading passages of the past eight entrance examinations for Tokyo University, which is considered to be "the best and brightest in the nation" (Chujo, 2004, p. 240).

As mentioned earlier, at least 95 percent text coverage is required to gain adequate comprehension (Nation, 2001). However, among the 14 chapters analyzed, only three chapters: Lesson 9 from *ELEMENT*, Lesson 1 from *CROWN*, and Lesson 3 from *BIG DIPPER*, reached the threshold with a vocabulary of 2,570 words. The most frequent 2,000 words alone were clearly not sufficient to provide 95 percent text coverage to any chapter analyzed in the present study.

Preliminary conclusions and future directions

The finding of this preliminary study suggested that even if Japanese high school students knew the most frequent 2,000 English words, which seems unlikely as research suggests (Browne, 1996; Tsuchi, 2008), they would still encounter approximately 12 percent of unknown words while reading current MEXT approved top three selling English reading textbooks. This finding implies that English teachers would still have to rely on the *Yakudoku* method in English reading class. From the viewpoint of lexical frequency, the current high school reading textbooks improved (a 10 percent increase in the text coverage of the most frequent 2,000

words compared to Browne's study), however, the lexical load of the current reading textbooks may be still too hard. Thus, the findings of the present study support the findings of Browne's (1998) that the vocabulary load of Japanese high school reading textbooks is considerable.

Implications for reading class practitioners include pre-teaching or glossing words beyond students' existing vocabulary to reduce the burden of unknown words. Teachers should then distinguish which words to remember because students tend to consider any new words appearing in texts as important (Mochizuki, Aizawa, & Tono, 2003). The other implication is that the *ELEMENT* textbook might be a good choice for some advanced students to get familiar with academic vocabulary because of the high text coverage: an average of 6.23 percent. In contrast, academic vocabulary provided an average of 3.28 percent text coverage in *CROWN* and 3.55 percent in *BIG DIPPER*.

Lastly, this preliminary study calls for future research that involves the analysis of more varied sets of new MEXT approved reading textbooks to be used starting from the 2013 school year in order to confirm the preliminary results of the present study.

References

Browne, C. (1996). Japanese EFL reading texts: How readable are they? *Temple University Japan Working Papers in Applied Linguistics*, 8, 28-40.

Browne, C. (1998). Japanese high school textbooks: How readable are they? *Temple University Japan Working Papers in Applied Linguistics*, 12, 1-13.

Chujo, K. (2004). Measuring vocabulary levels of English textbooks and tests using a BNC lemmatised high frequency word list. In J. Nakamura, N. Inoue, & T. Tabata (Eds.), *English Corpora under Japanese Eyes* (pp. 231-249). Amsterdam: Rodopi.

Coxhead, A. (2000). A new academic word list. *TESOL Quarterly*, 34(2), 213-238. doi: 10.2307/3587951

Heatley, A., Nation, I.S.P., & Coxhead, A. (2002). RANGE and FREQUENCY programs. Retrieved from http://www.vuw.ac.nz/lals/staff/Paul_Nation

Koike, I. (Ed.). (1985). *Daigaku eigo kyoiku ni kansuru jittai to shoraizo no sogoteki kenkyu (II) Gakusei no tachiba [General survey of English language teaching at colleges and universities in Japan: Students' view]*. Tokyo, Japan: Research Group for College English Teaching in Japan.

Matsusaka, H., Newell, A., Togo, T., Matsubayashi, Y., Aoyagi, R., Tanno, M., & Yamamoto, H. (2008). *BIG DIPPER Reading Course*. Tokyo, Japan: Suken Shuppan.

Mochizuki, M., Aizawa, K., & Tono, Y. (2003). *Eigo goi no shido manual*. Tokyo, Japan: Taishukan.

Naigaikyoiku. (2011, December 13). (pp. 12-13). Tokyo, Japan: Jijitsushinsha.

Nation, I.S.P. (2001). *Learning vocabulary in another language*. United Kingdom: Cambridge University Press.

Okuma, A., Le Pavoux, M., Takahashi, K., Miyashiro, A., & Ives, H. (2008). *ELEMENT English Reading READING SKILLS BASED*. Osaka, Japan: Keirinkan.

Shimozaki, M., Iida, R., Iwasa, Y., Sasaki, H., Kanno, A., Yamada, M.,... Taylor, G. (2008). *CROWN English Reading New Edition*. Tokyo, Japan: Sanseido.

Tsuha, S. (2008). Reconsideration of a reading program for university English majors based on their vocabulary size. *Journal of foreign languages, Okinawa International University*, 11(1), 74-99.

West, M. (1953). *A general service list of English words*. London, England: Longman, Green.

Xue, G., & Nation, I.S.P. (1984). A university word list. *Language Learning and Communication*, 3(2), 215-229.

Table 1
Text Coverage of Randomly Selected Lessons in the Top Three Selling High School English Reading Textbooks via RANGE

Textbook/ Lesson	GSL 1st 1,000	GSL 2nd 1,000	AWL	Not in the lists
ELEMENT				
Lesson 1	79.17%	5.21%	4.95%	10.68%
Lesson 5	77.11%	5.12%	11.45%	6.33%
Lesson 9	87.41%	5.95%	3.91%	2.72%
Lesson 13	80.04%	8.15%	5.09%	6.72%
Lesson 17	77.55%	8.72%	5.75%	7.98%
CROWN				
Lesson 1	89.50%	4.50%	2.19%	3.81%
Lesson 4	81.94%	5.02%	2.63%	10.41%
Lesson 7	81.11%	5.32%	4.34%	9.23%
Lesson 10	84.47%	3.97%	3.97%	7.58%
BIG DIPPER				
Lesson 3	88.19%	6.32%	1.92%	3.57%
Lesson 7	78.20%	10.90%	2.45%	8.45%
Lesson 11	78.57%	4.95%	4.40%	12.09%
Lesson 15	83.00%	4.59%	6.28%	6.13%
Lesson 19	85.92%	4.97%	2.72%	6.39%

Notes: GSL=General Service List; AWL=Academic Word List; ELEMENT=*ELEMENT English Reading READING SKILLS BASED*; CROWN=*CROWN English Reading New Edition*; BIG DIPPER=*BIG DIPPER Reading Course*; Totals of percentages are not 100 because of rounding.

A cognitive linguistic approach to L2 learning of phrasal verbs

Brian Strong
strongbp[at]icloud.com

Background

Erman & Warren (2000: 50) suggest that fifty-five percent of any text will consist of formulaic language. This estimate may be reasonably accurate considering that corpus linguistics research is finding patterns of idiomatic sequences used repeatedly throughout corpora. The idea that language use is largely formulaic and that language acquisition involves a great deal of formulaicity is becoming a prevalent view in many fields of research. This paper very briefly reviews an experiment on teaching and learning phrasal verbs, which is a subset of formulaic language. The motivations for this experiment centers on the fact that phrasal verbs remain largely problematic for many Japanese learners of English and that this is partly attributable to the little attention that has been given to teaching phrasal verbs in the classroom.

Learning phrasal verbs is an enduring source of difficulty for many Japanese learners of English. The confusion may be largely attributable to the fact that English lexicalizes orientational schemas differently from Japanese. That is, English encodes orientational spatial senses in particles whereas Japanese encodes these senses in the verb itself

(Yasuda, 2010: 251). Learners unaware of the special constructional contribution of particles and prepositions to the main verb may believe that phrasal verbs are arbitrary idiomatic expressions and regard rote memorization as the main strategy of learning phrasal verbs (Side, 1990). Farsani, H. M., Moinzadeh, A., and Tavakoli, M. (2012) point out that this misconception has also led teachers and textbook writers to promote memorization strategies of learning phrasal verbs.

It appears that for many Japanese learners of English, the chief strategy of learning phrasal verbs is through rote memorization, where L1 translations accompany target phrasal verbs. This piecemeal approach makes learning phrasal verbs a daunting task and tends to result in many learners underusing or incorrectly using phrasal verbs. An alternative strategy proposes raising learners' awareness of the orientational senses of prepositions and particles. This approach reflects cognitive linguistic (CL) principles of embodied cognition that highlights the fact that prepositions and particles have extended meanings that trace back to our experiences with our bodies, the environment and the interaction between them (Lakoff & Johnson, 1980).

Aims and Methods

The aim of this quasi-experimental study was to investigate three methods of learning phrasal verbs. The traditional group received a single sheet of paper with two columns. The target phrasal verbs were placed in the left column while the right side provided Japanese equivalent translations. They were given 10 minutes to learn the phrasal verbs and then received an immediate particle gap-fill test.

The first cognitive linguistic (CL-) group similarly received a single sheet of paper; however, the phrasal verbs were grouped according to their particle and the prototypical meanings were provided. Rather than use rote-memorization techniques, the participants received brief instruction consistent with a cognitive linguistic analysis of the extended meanings of the particles and their contributions to accentuate the meaning of the main verb. They were also encouraged to think about how these particles would be used in sentences. Thus, learners' attention was drawn to understanding the semantic verb-particle construction rather than to chunk learning.

Similar to the CL- group, the second cognitive linguistic (CL+) group received the additional treatment of schematic drawings of the prototypical meanings of the particle. These schematic drawings were placed on a single sheet of paper along with the particle groupings. In addition to receiving the same instruction as the CL- group, the CL+ were encouraged to refer to the schematic drawings in their efforts to visualize the meaning of the target phrasal verbs. Interestingly, when participants were asked to imagine the contribution of the particles in certain contexts, one student expressed her confusion at how the constituent 'down' contributes to the phrasal verb 'burn down' in the sentence 'The house burned down'. Apparently, this issue had perplexed the student for some time. To elucidate the CL approach, the researcher made reference to the schematic drawing and the prototypical meaning of 'down' listed on the single sheet of paper and then encouraged the student to imagine a house on fire. Then the researcher asked the student if a house on fire is still upright. Upon asking the question, the student indicated that she understood the contribution of the particle to the overall meaning of the phrasal verb 'burn down' in the context of 'the house burned down'. The benefit of adding schematic drawings is revealed in dual coding theory, which states that the pairing of semantic information with a mental representation creates an additional pathway for recollecting information (Boers, F., Piriz, A. M. P., & Eyckmans, J., 2009).

This study asked the following research questions:

1. Does the CL+ approach contribute to enhancing learners' awareness of phrasal verbs when compared to the traditional approach?
2. Does the CL- approach contribute to enhancing learners' awareness of phrasal verbs when compared to the traditional approach?
3. Which of these three approaches of learning phrasal verbs is more effective in terms of leading to higher gains and retaining those gains over time?

Three intact classes participated in this study. An analysis of the groups' TOEIC scores revealed reasonably similar levels of English proficiency, ($M = 385$, $SD = 108.52$, $F(1, 67) = 0.218$, $p = 0.642$).

The target phrasal verbs selected contained the adverbial particles *up*, *down*, *out* and *off*. The three treatment groups were exposed to 16 phrasal verbs for a duration of 10 minutes. Immediately following the treatment, all groups sat an adverbial gap fill test. The test items were 16 phrasal verbs that were not part of the treatment. These 16 unexposed phrasal verbs however share the same adverbial particles as the 16 exposed phrasal verbs.

The frequencies of the lexical items occurring on the test were analyzed using VocabProfile (www.lexutor.ca). The results showed that over 96% of the words occur within the 2000 frequency band of the BNC. The remainder of the words tended to be proper nouns or Japanese cognates. Thus, it is assumed that the participants would be familiar with nearly all of the lexical items on the test.

A sample test question is the following: 'When I call your name, please stand ___.' The researcher instructed the participants to choose the correct adverbial particle (*up*, *down*, *out*, or *off*) from a list provided below each sentential test question

Results

Table 1 lists posttest and delayed posttest scores of the three treatment groups. Based on these scores the CL+ group scored the highest on both tests that the CL- group scored higher than the traditional group on both tests. The traditional group scored the lowest.

Table 1
Phrasal Verb Gap Fill Test Scores

Groups	Posttest			Delayed Posttest	
	N	Mean	SD	Mean	SD
Traditional	23	14.52	2.76	13.78	2.68
CL-	23	16.26	3.05	14.87	2.83
CL+	23	20.43	1.75	19.13	2.46

To answer research question 1, the CL+ group's posttest score was statistically higher than the traditional group, $t(37.263) = 8.6694$, $p = 0.0000$, $r = .79$. Similarly (research question 2) the CL- group's posttest score was statistically higher $t(43.576) = 2.0278$, $p = 0.04872$, $r = .29$. To answer the third research question, a repeated-measures ANOVA with group as the between-subject factor and time as the within-group factor revealed that there was a statistically significant difference between groups' scores, $F(2, 66) = 39.68$, $p = 0.0000$, $r = .52$. A pairwise comparison using t tests with pooled SD and using the Friedman p value adjustment method revealed that the CL+ group's score was statistically significant from the CL- group's ($p = 0.0000$) and the traditional group's ($p = 0.0000$) score. An interactive plot in figure 1 illustrates the differences in scores between groups on the posttest and delayed posttest.

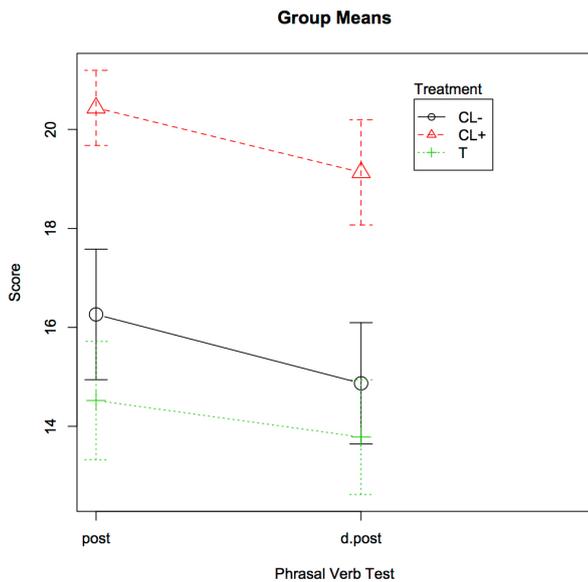


Figure 1 Interaction Plot of Group Means

Conclusion

These are preliminary results and further extensive data analysis is required. However, the initial results suggest that

a cognitive linguistics approach that makes use of schematic drawings contributed to the CL+ group’s scores, possibly reflecting a higher level of phrasal verb comprehension. Moreover, the results also suggest that even without the use of schematic drawings, the CL- approach contributed greater to phrasal verb comprehension than the traditional approach.

References

Boers, F., Piriz, A. M. P., & Eyckmans, J. (2009). Does Pictorial Elucidation Foster Recollection of Idioms? *Language Teaching Research*, 13(4), 367–382. doi: 10.1177/1362168809341505

Erman, B., & Warren, B. (2009). The idiom principle and the open choice principle. *Text - Interdisciplinary Journal for the Study of Discourse*, 20(1), 29–62. doi:10.1515/text.1.2000.20.1.29

Farsani, H. M., Moinzadeh, A., & Tavakoli, M. (2012). Mnemonic Effectiveness of CL-motivated Picture-elucidation Tasks in Foreign Learners’ Acquisition of English Phrasal Verbs. *Theory and Practice in Language Studies*, 2(3), 498–509. doi:10.4304/tpls.2.3.498-509

Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. Chicago: The University of Chicago. doi: 10.3115/1118975.1118976

Side, R. (1990). Phrasal verbs: Sorting them out. *ELT Journal*, 44, 144–152. doi:10.1093/elt/44.2.144

Yasuda, S. (2010). Learning Phrasal Verbs Through Conceptual Metaphors: A Case of Japanese EFL Learners. *TESOL Quarterly*, 44(2), 250–273. doi: 10.5054/tq.2010.219945

Word of Mouth

R:Open-source software for data analysis

TJ Boutorwick
tboutorwick[at]yahoo.com

The purpose of this article is to introduce R, an object-oriented programming language used for data analysis. R can be found worldwide, from universities to top-journal publications and is appealing because of its power and versatility. Furthermore, R is open-source software, meaning it’s free.

This article will first give a brief explanation of R. Next, the commonly-asked question “Why R?” will be addressed. Then, a set of instructions will be given that the reader can follow to install R on their computer. Finally, related links will be given to provide the reader with the information they need to learn R.

What is R?

R is a strongly functional language and environment to statistically explore data sets and make many graphical displays of data from a command line (R Core Team, 2012). R is an object-oriented language, meaning that it stores data in objects, analogous to variables in algebra, and then uses functions to call the objects for further manipulation, including calculations, creating a variety of graphics, and other similar tasks. It is important in understanding part of the power that R possesses by explaining what is known as a package. R operates using two kinds of files: core files and packages. The core files include those needed to initiate the R console - the input/output engine of R - or in other words where the user interacts with R. Packages, on the other hand, are collections of R functions, data, and code in a well-

defined format” (Kabacoff, 2011). Installing R provides more than enough basic packages for data analysis and graphic visualization. Nonetheless, thousands of additional user-contributed packages exist, the majority of which are maintained by leading programmers and statisticians around the world. Using a cellphone as a metaphor, the core files would equate to turing on the cellphone, while the packages equate to all of the programs and applications used by the phone that give it its functionality.

Why R?

First and foremost, R is available for download at no cost; it is completely free. Free, as it applies to R, has two meanings: free as in beer, and free as in speech. R is under the GNU license, meaning it is freely available for download and distribution at no charge, whereas SPSS, for example sells for roughly 1,050 US dollars with a one-year license. Hence R is free as in free beer. The second usage of free stems from the fact that R is open-source software, meaning “...you can modify it to do all sorts of things. And you have a lot of prepackaged stuff that’s already available, so you’re standing on the shoulders of giants” (Vance, 2009).

The second answer to the question is R’s versatility. Put simply, R is an all-in-one suite that provides “...a wide variety of statistical (linear and nonlinear modelling, classical statistical tests, time-series analysis, classification, clustering, ...) and graphical techniques, and is highly extensible” (R Core Team, 2012). To illustrate this, suppose that we are interested in looking at the Vocabulary Size Test (Nation & Beglar, 2007), to assess its reliability/validity. In order to do this without R, we would use another application, for example SPSS, to analyze the data. Further, it’s likely that we will apply the data to the Rasch model, in which case we

need to open winsteps (for Windows), reorganize the data in the Winsteps input file format, run the analysis, then save the output. On the other hand, all of the aforementioned analyses can be handled using only R, saving time, space, and money.

Third, is R's ability to automate. By default there is no graphical user interface (GUI) installed with R; there are no point-and-click menus. The user must tell R what to do by entering commands. The plus side to having a command line is that any command, or set of commands can be saved in an R script file and loaded later. This allows for different datasets to be analyzed in the same way without having to run through the process of entering commands again, virtually automating any analysis. With advanced R scripts, it is possible to automate an analysis by a certain time (say everyday at 8pm) and output the results to a user-specified file, without even having to open R. But don't worry, if you are not comfortable using a command line, there are GUIs available for download (e.g., RStudio).

Installing R

R can be downloaded from the following links:

R for Windows <http://cran.r-project.org/bin/windows/base/R-2.15.3-win.exe>

R for Mac <http://cran.r-project.org/bin/macosx/R-2.15.3.pkg>

These links are found on the Comprehensive R Archive Network's (CRAN) webpage at cran.r-project.org. Spending a few minutes navigating this website is highly recommended as it provides large amounts of R-related information.

Conclusion

This article attempted to introduce R in a practical, easy-to-understand manner. Unfortunately it has barely scratched

the surface of the power that R possesses. As it relates to vocabulary research, R has advanced functions for finding and replacing text, can handle virtually all types of regression, including mixed-models (which SPSS can not, to my knowledge), handles item analyses (including Rasch models), and can read a variety of file extensions (including SPSS files). Finally, R can be fully automated so that a single click (or less!) of the mouse will initiate complex tasks. On a final note, I hope that more people will spend some time looking at their vocabulary research data using R; Once you have a grasp on the fundamentals, I truly believe you will be limited by only what you can imagine.

Further Reading

[Introduction to R.pdf](#)

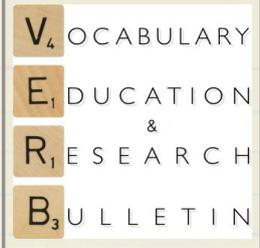
An introduction to R manual written by the R core development team. They explain all that is needed for a strong foundational knowledge of R.

[R data import & export.pdf](#)

A manual that explains a variety of ways to import data in R, as well as the file types that it can handle.

References

- Kabacoff, R. (2011). *R in action: Data analysis and graphics with R*. Shelter Island, NY: Manning Publications Co.
- R Core Team. (2012). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing, Vienna, Austria. <http://www.R-project.org>.
- Vance, A. (2009, Jan 6). Data analysts captivated by R's power. *The New York Times*. Retrieved from http://www.nytimes.com/2009/01/07/technology/business-computing/07program.html?_r=3&
- Nation, I.S.P, & Beglar, D. (2007). A vocabulary size test. *The Language Teacher*(31)7, 9-13.



SIG News

In this issue, we have much information on publication opportunities. Above all, note that the call for posters for our 2nd symposium is still open! Don't miss the calls for papers for VLI and VERB either!

SIG EVENT

2013 JALT VOCABULARY & CUE SIG SYMPOSIUM

Date: Saturday June 29, 2013

Venue: Kyushu Sangyo University, Fukuoka

Morning plenary:

Rob Waring

Featured discussants:

Paul Nation and Yo In'nami

Presentations:

Tomoko Ishii

Emilie Masson

Atsushi Mizumoto

Rachael Ruegg

David Coulson

Tim Stoeckel & Phil Bennett

Raymond Stubbe

Wen-Ta Tseng

Visit <http://jaltvocab.weebly.com/symposium.html> for further information

Call for papers: Poster Presentations **(Extended deadline March 30th)**

In order to ensure a strong audience, no sessions will run concurrent to poster presentations. Proposals for poster presentations will be accepted under two general categories:

1. Ongoing vocabulary-related research
2. Vocabulary teaching and learning in practice

For more information, please visit
<http://jaltvocab.weebly.com/call-for-papers.html>

**CALL FOR PAPERS FOR
VOCABULARY LEARNING & INSTRUCTION**

The Vocabulary SIG's *Vocabulary Learning and Instruction* journal is calling for submissions for its third issue. Submissions will be published online upon acceptance, and printed early 2014.

VLI accepts long-form research papers (2000-7000 words) and brief reports, summaries and commentaries (2000-3000 words) related to vocabulary acquisition, pedagogy, assessment and lexical networks.

As an open journal, content is indexed on Google Scholar and made freely available on the internet without paywalls. Authors are free to also make their work available on sites such as academia.edu and researchgate.

The deadline for submissions for the third print issue is Tuesday October 01, 2013 (at 23:59:59 JST).

All submissions are subject to a 2-step peer-review process:

A) Editors review manuscripts to ensure basic requirements are met, and that the work is of sufficient quality to merit external review. This process typically takes 1-2 weeks, at which point authors are informed of the outcome.

B) Submissions which meet these requirements are sent out for blind peer review by 2-3 experts in the field. This process takes approximately 1-2 months. Following external review, authors are sent copies of external reviewers' comments and notified of decisions (*accept, accept pending changes, revise and resubmit, or reject*).

Please see <http://vli-journal.org/submissions.html> for details.

**VOCAB@VIC CONFERENCE 2013:
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December 18-20, 2013

Rutherford House, Victoria University of Wellington, New Zealand

Featuring:

Paul Nation

Averil Coxhead

Frank Boers

Irina Elgort

Peter Gu

Anna Siyanova

Stuart Webb

Call for papers now open!

Please visit www.vocab.org.nz/call-for-papers.html for details.

Deadline April 12, 2013

PUBLICATIONS BY MEMBERS

This is a list of recent publications from our members (that we are aware of). Congratulations for getting published! If you don't see yours, please let us know so that we can include it in a future issue. This is a good method for getting your paper out and read by a variety of people.

Stewart, J., Fryer, L. K., & Gibson, A. (In Press). Assessing the dimensionality of three hypothesized sub-skills of L2 vocabulary proficiency. *JACET Journal*, 56.

Stubbe, R. & Stewart, J. (2012). Optimizing scoring formulas for yes/no vocabulary tests with linear models. *Shiken Research Bulletin* 16 (2), 2-7.

VERB SUBMISSION INFORMATION

Short Papers & Word of Mouth

- Contributions to Short papers and Word of Mouth sections must not exceed 1000 words, excluding references and titles. They are expected to adhere to APA 6th edition formatting guidelines. All submissions will undergo peer review, and may require rewriting and resubmission for acceptance.
- The call for papers deadline is:

June 30th

Member Publication & Event Info

- If you would like to get the word out about your recent publications, please inform us and we will list it in a future issue so that more people will be exposed to it.
- If you know of a vocabulary-related event, or if you are planning to organize an event, please let us know!

Please send your submission to: [jaltvocabsig.verb\[at\]gmail.com](mailto:jaltvocabsig.verb[at]gmail.com)
For more information, visit: <http://jaltvocab.weebly.com>