

A Validation Study of the CEFR Levels of Phrasal Verbs in the English Vocabulary Profile

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Abstract

This article reports on a part of the development and validation project for the English Vocabulary Profile (EVP). The previous version of the EVP included 439 phrasal verbs as well as 4,666 individual word entries. Each of their meanings is ordered according to its CEFR level. The aims of the study are to identify the actual difficulty of each phrasal verb, to validate the tentative decision of the CEFR levels, and also to explore factors that explain the difficulties, by using textbook corpora. In order to carry out this research, we developed a phrasal verb test of 100 items, consisting of four A1 items, nineteen A2 items, forty B1 items and thirty-seven B2 items. Approximately 1,600 Japanese students took this test. We analysed the test data, using item response theory. The results of the test show that although the average difficulties of the phrasal verbs in each level were ordered according to the level prediction, the ranges of the difficulties in each level overlapped. The analysis of textbook corpora reveals that there is a complex relationship between the difficulty levels of phrasal verbs and their frequencies in the textbooks. We discuss its implications and possible improvements for the EVP.

Keywords: English Vocabulary Profile, phrasal verbs, CEFR levels, corpus

1. Introduction

The English Vocabulary Profile (EVP, formerly known as the English Profile Wordlists) is part of the English Profile Programme, the aim of which, according to Kurteš and Saville (2008), is to produce Reference Level Descriptions for English linked to the Common European Framework of Reference for Languages (CEFR; Council of Europe 2001).

The core objective of the initial phase of the EVP project has been to establish which words are commonly known by learners around the world at the CEFR levels A1 to B2, and

to assign these levels not merely to the words themselves but to their individual meanings (Capel 2010).

At the time of investigation, the EVP included 439 phrasal verbs as well as approximately 4,700 individual word entries. Each meaning that is listed in an entry is ordered according to its CEFR level. Decisions about level were based partly on the evidence of the Cambridge Learner Corpus (CLC). Additionally, for all EVP entries, a range of other sources was consulted, including native speaker evidence of frequency in the Cambridge International Corpus, ESOL exams vocabulary lists at A2 and B1 levels, coursebook wordlists, readers wordlists, vocabulary skills books, and the *Cambridge English Lexicon* (Hindmarsh 1980).

We investigated the validity of the initial decisions made on phrasal verbs, for which there is less learner evidence in the CLC, by administering a test to English learners. On 12 April 2011, the Preview version of the English Vocabulary Profile, including examples of the new C1 and C2 data, was launched under its new name. The current English Vocabulary Profile contains words, phrases, phrasal verbs and idioms. According to the glossary on the English Profile website, a phrasal verb is defined as a multi-word verb which involves an adverb particle, e.g. *sit down, go away*. On the other hand, there is a related term in the glossary called ‘multi-word verb’, which is defined as follows: a verb which ‘may be combined with one or two particles to function as a verb with a unitary meaning. There are three kinds of multi-word verb. Phrasal verbs have adverb particles . . . Prepositional verbs take a preposition . . . and phrasal-prepositional verbs take both an adverb and a preposition’ (e.g. ‘look down on’) (Carter & McCarthy 2006: 911).¹ At the time of investigation, however, there was no such definition, so in this research ‘phrasal verbs’ included the above three types.

The purposes of this research are as follows:

1. to identify the actual difficulty of each phrasal verb in the Japanese context;
2. to validate the tentative decisions on CEFR levels for certain phrasal verbs in the EVP; and
3. to explore factors that explain the difficulties for Japanese learners, using a textbook corpus.

2. Method

2.1. Participants

Some 1,622 Japanese students, consisting of 1,550 senior high school students and 72 university students, participated in this study. They were enrolled in fourteen different high schools and one university located in the areas of Tokyo, Fukushima and Akita prefectures in Japan. Although the majority of the participants were high school students, university students were invited to participate in this research, in order to obtain reliable data across all the levels.

¹ Retrieved on 5 May 2012 from http://www.englishprofile.org/index.php?option=com_glossary&task=list&glossid=1&letter=M&Itemid=35.

2.2. Test sets

For this particular research, a phrasal verb test was developed. When the test was administered, the EVP included four phrasal verbs at A1 level, twenty-seven phrasal verbs at A2 level, 145 phrasal verbs at B1 level, and 263 phrasal verbs at B2 level, where phrasal verbs with multiple meanings were counted separately. There are fewer phrasal verbs at the lower CEFR levels, which might reflect the EFL/ESL acquisition order. Some 119 items were selected as a pilot test, which was initially administered to two Japanese PhD students studying in the UK, and then the test with English definitions was tried out on two native speakers of English. After excluding the items that they could not answer correctly, 100 items were selected. The final test included four A1 items, nineteen A2 items, forty B1 items and thirty-seven B2 items. In order to counterbalance the number of items at each level with the number of the participants at the corresponding level, we selected as many phrasal verbs as possible from the A1 and A2 levels; in fact, all the A1 phrasal verbs were included in the test, as we had only four of them. In principle, those at B1 and B2 levels were selected randomly. However, more phrasal verbs were selected from B1 level, since we presumed that we had fewer participants at B2 level. Also, the phrasal verbs with multiple meanings tended to be selected to check the validity of the level allocation. Here is an example of the question format:

He (w) < > his mug and put it back on the shelf. 洗う

The participants were required to fill in a verb in parentheses and an adverb or a preposition in angled brackets in each sentence, with the help of Japanese translation equivalents. The initial letter of the verb was indicated in the parentheses so that the possibility of more than one phrasal verb that fitted the context was avoided.

The test was designed in this way in order to tap students' productive use. As said above, the EVP has been based partly on written exam scripts in the CLC, which does not contain an enormous amount of evidence of the use of phrasal verbs at all levels. It was for this reason that we were asked to undertake this validation task.

2.3. Procedure

First of all, the participants answered a questionnaire asking what authorised textbook they had used in junior high school, and then they moved on to the test. The questionnaire and test were conducted in one regular lesson, which means it took approximately 50 minutes for them to finish both. In scoring their answers, one point was allotted for one correct answer. All the items were scored dichotomously (i.e. 0 or 1). Spelling and inflection mistakes were not penalised as long as they were intelligible. The statistical software used to analyse the data was R, IteMan, Rascal (IRT-One parameter), and Xcalibre (IRT-Two parameter). The results were compared against the frequency distributions of textbook corpora to see if there was any effect of the amount of exposure from the textbook input.

3. Results

Table 1 shows the test statistics. The mean score of 31.443 suggests that, overall, the test was quite difficult for the students. However, the alpha was 0.965, which means that the test was internally consistent and reliable.

Table 1 *Test statistics*

N of items	100	Alpha	0.965
N of examinees	1622	SEM	3.659
Mean	31.443	Mean P	0.314
Variance	384.211	Mean Item-Tot.	0.463
Std. Dev.	19.601	Mean Biserial	0.664
Skew	0.568	Max Score (Low)	16
Kurtosis	-0.575	N (Low Group)	466
Minimum	0	Min Score (High)	44
Maximum	91	N (High Group)	455
Median	27		

Figure 1 is the item by person distribution map, which shows that more students were distributed for easier items, and fewer students for more difficult items.

Figure 2 shows the box plots of item difficulty by CEFR level. The item difficulties were calculated with the program RASCAL to answer research questions 1 and 2. RASCAL is based on the one-parameter Rasch logistic IRT model for dichotomous data. In this model, as the index gets closer to minus four, the item is getting easier, and as the index gets closer to plus four, the item is getting more difficult.

In Figure 2, the bottom and top of each box indicates the 25th and 75th percentile (the lower and upper quartiles, respectively) and the band near the middle of the box is the 50th percentile (the median). The whiskers indicate minimum and maximum values with some white dots for outliers. The result of the one-way ANOVA indicates the phrasal verbs at A1 level are significantly easier than those at the other three levels. However, there was no significant difference between A2, B1 and B2 levels, although the average scores seemed to be getting higher as the levels went up.

Tables 2 to 5 show definitions of the phrasal verbs with corresponding item difficulties. The phrasal verbs were classified according to the CEFR levels and in each group they were ordered in line with the item difficulties.

The results in Tables 2 to 5 show that there is a wide range of difficulty in each group, in particular A2, B1 and B2 levels. It seems that, at least for Japanese-speaking learners of English, the difficulty levels of phrasal verbs do not always correspond to the CEFR levels proposed in the EVP.

In addition to the analyses, a corpus of junior high school English textbooks was compiled to explore the effects of L2 input on the difficulties of the phrasal verbs. The corpus consists of six series of government-authorised English textbooks, covering years 7 to 9, which corresponds to the first three years of learning English. Each student is supposed to use one of these

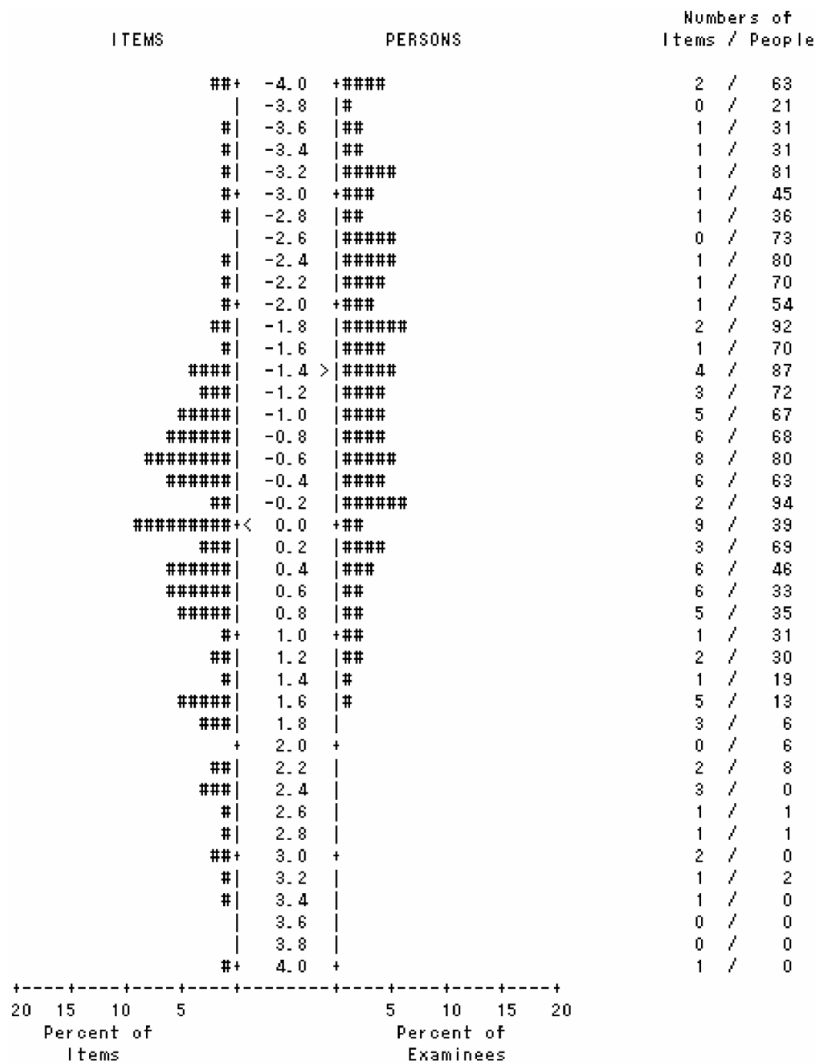


Figure 1 The item by person distribution map.

government-authorised textbooks. Although most of the participants were senior high school (Year 10–12) students, the corpus did not contain senior high school textbooks, primarily because the types of textbooks used at high school varied greatly from school to school and the influence from high school textbooks was expected to be small for Year 10 students. The total size of the corpus was 29,251 tokens, or 3,291 types. The phrasal verbs were extracted by first preparing a list of search patterns for each of the phrasal verbs, using regular expressions, and then using a Perl script to automatically extract all the instances of phrasal verbs from the corpus.

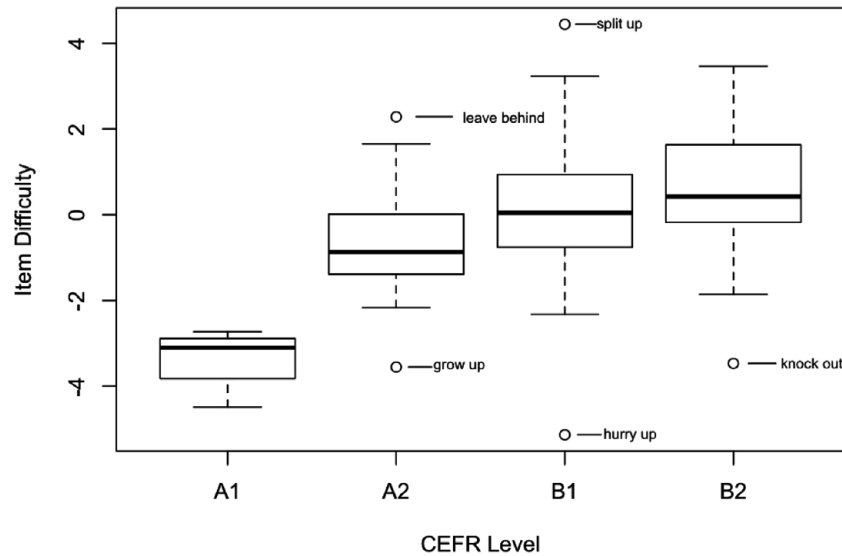


Figure 2 The box plots of item difficulty by CEFR level.

Table 2 Item Difficulties of A1 Phrasal Verbs

CEFR Level	Item no.	Phrasal verb	Definition	Item difficulty
A1	3	get up	to wake up and get out of bed, or make someone do this	-4.487
A1	8	go out	to leave a place in order to go somewhere else	-3.154
A1	59	wake up	to stop sleeping or to make someone else stop sleeping	-3.039
A1	17	come from	to be born, got from, or made in a particular place	-2.729

Table 6 shows the frequencies of the phrasal verbs in the corpus. Forty-eight out of the 100 phrasal verbs appeared in the textbooks at least once. The rest of the items, namely fifty-two items, did not occur at all. As can be seen, the frequency of phrasal verbs is really low in junior high school textbooks. This is rather natural, considering the overall level of junior high school English, which roughly corresponds to A level in CEFR. It was also appropriate that half of the phrasal verbs did not appear, because our primary purpose for this corpus analysis was to investigate the relationship between the encounter with phrasal verbs in the textbooks and the learners' performance of the corresponding phrasal verbs.

The accuracy rates of phrasal verbs were compared, based on relative frequencies in the textbooks. Phrasal verbs were grouped into four categories: NONE, LOW (one to two), MID (three to six), and HIGH (seven to nine). The mean differences in accuracy scores were

Table 3 *Item Difficulties of A2 Phrasal Verbs*

CEFR Level	Item no.	Phrasal verb	Definition	Item difficulty
A2	24	grow up	to gradually become an adult	-3.551
A2	61	come back	to return to a place	-2.168
A2	63	take off	If an aircraft takes off, it leaves the ground and begins to fly.	-1.919
A2	74	put on	to put clothes or shoes onto your body	-1.523
A2	47	get on	to go onto a bus, train, aircraft or boat	-1.402
A2	56	come in	to enter a room or building	-1.370
A2	51	look after	to take care of someone or something by keeping them healthy or in good condition	-1.175
A2	88	turn on	to move the switch on a machine, light, etc. so that it starts working, or to start the supply of water, electricity, etc.	-1.083
A2	73	turn off	to move the switch on a machine, light, etc. so that it stops working, or to stop the supply of water, electricity, etc.	-1.068
A2	6	get off	to leave a bus, train, aircraft or boat	-0.868
A2	94	take off	to remove something, especially clothes	-0.857
A2	78	try on	to put on a piece of clothing to discover if it fits you or if you like it	-0.411
A2	31	call back	to telephone someone again, or to telephone someone who telephoned you earlier	-0.302
A2	54	belong to	If something belongs to you, you own it.	-0.290
A2	97	pick up	to collect someone who is waiting for you, or to collect something that you have left somewhere	0.364
A2	95	put on	to put make-up or cream onto your skin	1.478
A2	57	put on	If someone puts on weight, they become heavier.	1.557
A2	49	lie down	to move into a position in which your body is flat, usually in order to sleep or rest	1.656
A2	65	leave behind	to leave a place without taking someone or something with you	2.284

examined for statistical significance. Figure 3 is the box plots showing differences in accuracy among phrasal verbs with different frequencies in the textbooks. The results of one-way ANOVA and Kruskal–Wallis test show that a significant mean difference was found between the HIGH group and the NONE group. There was no statistically significant difference between NONE and LOW, or between MID and HIGH groups, although we could observe a gap in the median scores among those groups.

Table 4 *Item Difficulties of B1 Phrasal Verbs*

CEFR Level	Item no.	Phrasal verb	Definition	Item difficulty
B1	1	hurry up	to make someone do something more quickly, or to make something happen sooner	-5.132
B1	41	belong to	to be a member of a group or organization	-2.322
B1	86	look forward to	to feel happy and excited about something that is going to happen	-1.716
B1	82	believe in	to be certain that something exists	-1.445
B1	100	laugh at	to show that you think someone or something is stupid	-1.328
B1	25	take out	to go somewhere with someone and pay for them	-1.299
B1	71	write down	to write something on a piece of paper so that you do not forget it	-1.175
B1	26	fall down	to fall onto the ground	-1.076
B1	48	base on	If you base something on facts or ideas, you use those facts or ideas to develop it.	-1.065
B1	36	depend on	to need the help and support of someone or something in order to exist or continue as before	-0.788
B1	83	bring up	to care for a child until it is an adult	-0.726
B1	16	break down	If a machine or vehicle breaks down, it stops working.	-0.644
B1	12	hear from	If you hear from someone, you get a letter or telephone call from them, or they tell you something.	-0.592
B1	29	keep on	to continue to do something, or to do something again and again	-0.566
B1	77	put off	to arrange to do something at a later time	-0.551
B1	92	get back	to be given something again that you had before	-0.510
B1	98	give up	If you give up a habit, such as smoking, or something such as alcohol, you stop doing it or using it.	-0.506
B1	70	remind of	to be similar to, or make you think of, something or someone else	-0.430
B1	69	send back	to return something to the person who sent it to you, especially because it is damaged or not suitable	-0.376
B1	18	find out	to get information about something, or to learn a fact for the first time	0.031
B1	66	deal with	to take action in order to achieve something or in order to solve a problem	0.065

Table 4 *Continued*

CEFR Level	Item no.	Phrasal verb	Definition	Item difficulty
B1	4	go on	to happen	0.069
B1	91	hand in	to give a piece of written work to a teacher	0.139
B1	72	put on	to put a CD/DVD, etc. into a machine so that you can see or hear it	0.318
B1	53	shut down	If a computer or machine shuts down or someone shuts it down, it stops operating.	0.464
B1	10	consist of	to be made of or formed from something	0.469
B1	28	go on	to continue to happen or exist	0.542
B1	9	run out	to finish, use or sell all of something, so that there is none left	0.592
B1	32	hang up	to finish a conversation on the telephone by putting the phone down	0.706
B1	50	care for	to look after someone or something, especially someone who is young, old or ill	0.809
B1	85	set up	to formally establish a new company, organization, system, way of working, etc.	0.837
B1	81	look up	to try to find a piece of information by looking in a book or on a computer	1.035
B1	19	carry out	to do or complete something, especially something that you have said you would do or that you have been told to do	1.174
B1	76	put out	to make something that is burning stop burning	1.630
B1	11	keep off	to not go onto an area, or to stop someone or something going onto an area	1.734
B1	2	work out	to exercise in order to improve the strength or appearance of your body	1.874
B1	89	pass on	to tell someone something that another person has told you	2.926
B1	93	key in	to put information into a computer using a keyboard	3.057
B1	30	put through	to connect someone using a telephone to the person they want to speak to	3.231
B1	64	split up	If two people who have a romantic relationship split up, they finish their relationship.	4.443

In order to estimate how much exposure native speakers have received in terms of item frequencies, a comparison was made between the frequencies of phrasal verbs and the words in the same frequency range in two native speaker corpora, the 100-million-word British

Table 5 *Item Difficulties of B2 Phrasal Verbs*

CEFR Level	Item no.	Phrasal verb	Definition	Item difficulty
B2	52	knock out	to make someone become unconscious, usually by hitting them on the head	-3.466
B2	27	look forward to	used at the end of a formal letter to say you hope to hear from or see someone soon, or that you expect something from them	-1.860
B2	38	run away	to secretly leave a place because you are unhappy there	-1.011
B2	60	burn out	to become ill or very tired from working too hard	-0.795
B2	58	break out	If something dangerous or unpleasant breaks out, it suddenly starts.	-0.744
B2	44	depend on	to trust someone or something and know that they will help you or do what you want or expect them to do	-0.532
B2	22	keep from	to prevent someone or something from doing something	-0.521
B2	90	go on	to continue doing something	-0.457
B2	43	rely on	to need someone or something in order to be successful, work correctly, etc.	-0.388
B2	35	do without	to manage without having something	-0.179
B2	84	look up to	to respect and admire someone	-0.086
B2	15	cheer up	If someone cheers up, or something cheers them up, they start to feel happier.	-0.061
B2	7	turn out	to be known or discovered finally and surprisingly	-0.023
B2	62	burn down	to destroy something, especially a building, by fire, or to be destroyed by fire	0.018
B2	37	put up with	to accept unpleasant behaviour or an unpleasant situation, although you do not like it	0.040
B2	23	die out	to become more and more rare and then disappear completely	0.044
B2	87	make up	to say or write something that is not true	0.209
B2	5	calm down	to stop feeling upset, angry or excited, or to stop someone feeling this way	0.267
B2	46	take after	to be similar to an older member of your family	0.425
B2	33	go ahead	something that you say to someone to allow them to do something	0.478
B2	68	stand for	If one or more letters stand for a word or name, they are the first letter or letters of that word or name and they represent it	0.664

Table 5 *Continued*

CEFR Level	Item no.	Phrasal verb	Definition	Item difficulty
B2	14	result in	to cause a particular situation to happen	0.669
B2	13	burst into	to suddenly start to make a noise, especially to start crying	0.675
B2	79	point out	to tell someone about some information, often because they do not know it or have forgotten it	0.696
B2	34	pass away	to die	0.728
B2	75	go through	to experience a difficult or unpleasant situation or event	0.876
B2	80	live on	to only eat a particular type of food	1.123
B2	42	deal with	to talk to someone or meet someone, especially as part of your job	1.630
B2	99	figure out	to finally understand something or someone	1.681
B2	67	count on	to have confidence in someone because you know they will do what you want	1.752
B2	96	sum up	to describe briefly the most important facts or characteristics of something	2.296
B2	20	go by	If time goes by, it passes,	2.336
B2	45	think over	to consider an idea or plan carefully before making a decision	2.390
B2	40	date back	to have existed a particular length of time or since a particular time	2.446
B2	55	slow down	If someone slows down, they become less active.	2.505
B2	21	cool off	to become less hot, or to make someone or something become less hot	2.865
B2	39	live up to	to be as good as someone hopes	3.466

National Corpus (BNC) and the 3.3-billion-word ‘English TenTen’ (enTenTen) Corpus available on the Sketch Engine.

Table 7 shows the estimated amount of exposure regarding phrasal verbs under study. The columns show, from left to right, phrasal verbs, their frequencies in the BNC and enTenTen, and the words in the same frequency range, respectively. Whilst it is a simple estimate, the overall results suggest that the patterns of frequency distributions for different phrasal verbs look very similar across the two corpora and that some phrasal verbs were found to be quite low in frequency.² Phrasal verbs are sometimes difficult to acquire due to their lack of compositional meanings. If the frequencies are very low, it might be natural for L2 learners

² The estimate based on the web corpus could be biased toward the materials available on the Web. The issue of text types and representativeness for Web corpora still remains, but as Kilgarriff and Grefenstette (2003: 342) wrote: ‘The Web is a dirty corpus, but expected usage is much more frequent than what might be considered noise.’

Table 6 *Frequencies of the Phrasal Verbs*

Phrasal verbs	Total
pick up	9
get on	8
come from	7
come back	6
find out; go for; come in	5
put on; give up	4
fall down	3
die out; grow up; take out; look forward to; keep on; wake up; take off; try on; live on; look up; believe in; set up; make up	2
hurry up; get up; go on; go out; keep off; hear from; cheer up; call back; hung up; run away; leave behind; write down; put out; turn on; hand in; get back	1

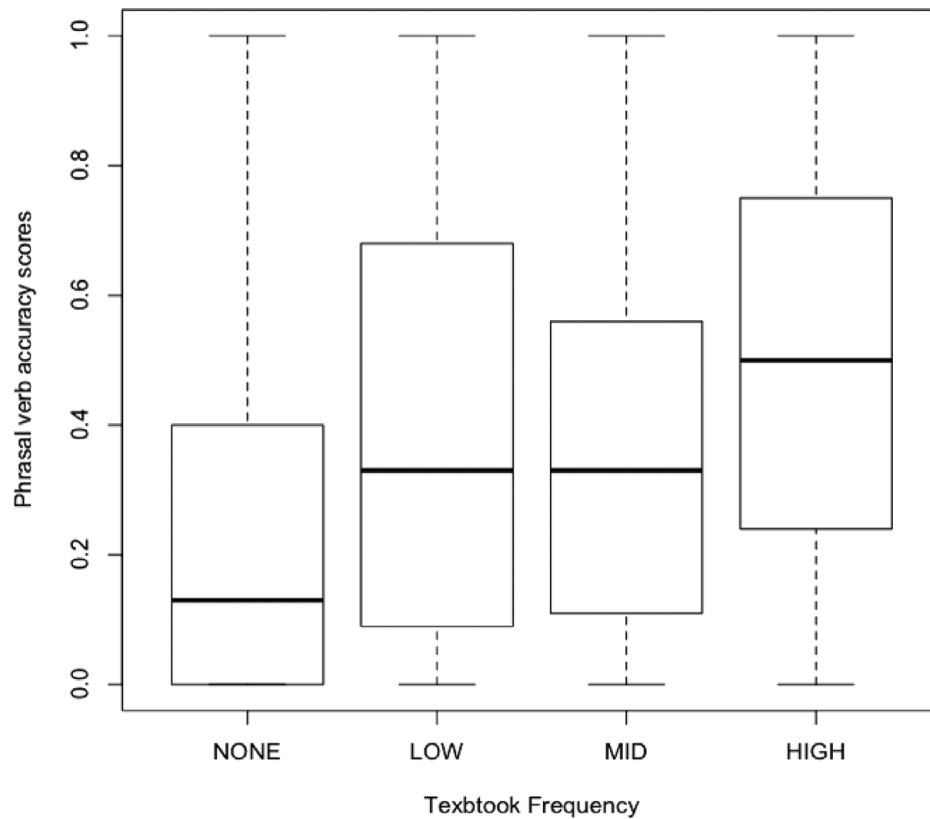


Figure 3 Differences in accuracy among phrasal verbs with different frequencies.

Table 7 *Estimated Exposure to Phrasal Verbs*

Phrasal verbs	BNC freq ³	enTenTen	Words in the same frequency range
go on	21861	401605	language; watch; free; difficult; die; product; stage
pick up	7496	182870	equal; conflict; danger; sight; expert; belief; decline
belong to	4808	133926	abuse; attach; championship; liability; atmosphere
wake up	1985	61095	crystal; handicap; restoration; doctrine; motive
leave behind	1424	42767	coastal; parking; alike; diesel; tighten; tidy; ankle
keep off	473	9760	editing; sperm; patio; stiffen; rename; alienate
split up	446	4618	amplitude; quiver; drawl; tart; knuckle; immature

to have less chance to encounter them in texts, although each of their component verbs and adverbs/prepositions are familiar to them (Waring & Takaki 2003).

4. Discussion

4.1. The gap between CEFR levels and item difficulties

The results of the analyses indicate that some of the B1 or B2 items are not necessarily as difficult as their level might indicate, and, conversely, that some A2 items are not always easy for Japanese students. The results also suggest possible factors for interpreting the gaps between CEFR levels and actual item difficulties.

For instance, *knock out* is a B2 item in the EVP, which means the phrasal verb is seen as relatively difficult for learners. However, the item difficulty is -3.47 , and it is actually very easy for Japanese learners. The reason is that *knock out* is an English loanword that is used in boxing, and is also used figuratively.

Another interesting item is *leave behind*, whose level at the time of this research was A2, but the item difficulty is 2.28, which means it is statistically more difficult. This can be attributed to its very low frequency in English textbooks in Japan, as indicated in Table 6. It appears only once in the textbook corpus, which indicates that Japanese students rarely come across this phrasal verb in the classroom. In addition, the frequency of *behind* is surprisingly low for a preposition in the textbooks, and therefore students do not acquire the core meaning of the word. Subsequent to our research, the level of *leave behind* has been raised to B1 in the EVP.

As Figure 2 shows, the ‘outliers’, such as *grow up* and *hurry up*, turned out to be much easier than the other phrasal verbs in their assigned levels. The content words in these phrasal verbs are semantically transparent, and the word *up* is no more than an intensifier. Therefore, when learners encounter these phrasal verbs for the first time, they can at least infer their meanings quite easily, although they may not be able to use them creatively from the beginning. The

³ Table 2 only provides frequencies for each phrasal verb. Ideally, dispersion measures should be provided as well, which could not be calculated due to the limitations of enTenTen, whose raw texts were not downloadable from the Sketch Engine site.

transparency of the content words in phrasal verbs seems to facilitate learners' acquiring them.

The most difficult item out of 100 in this study is *split up*, whose level is B1, with the meaning 'to finish a relationship'. The percentile correct is 0.00; only two students out of 1,622 got the item right. The reason might be that 'relationship' is one of the topics which tend to be avoided in authorised English textbooks in Japan, so Japanese students have very few opportunities to encounter English expressions related to this kind of topic. Japanese students as well as Japanese teachers rarely talk about relationships in the classroom. It is interesting to note that European learners have a lot of exposure in their textbooks to relationship issues and coverage of the language that attaches to them (Annette Capel, personal communication).

In this study, a number of phrasal verbs with multiple meanings were deliberately chosen. Those meanings are quite often assigned to different levels. According to the EVP, *go on* has three meanings within A1–B2 levels: 'to happen' as in *What's going on?*; 'to continue to happen or exist' as in *The meeting went on until six o'clock.*; and 'to continue doing something' as in *We can't go on living like this.* The first two meanings are labelled B1, and the last one is labelled B2. However, in our study, the B2 item turned out to be the easiest of the three for learners to acquire. Although this phrasal verb is given three distinct meanings, in our own view they are very similar. The essential meaning of *go on* is more or less related to 'continuation'. Therefore, these differences in difficulty should be attributed to something other than 'meaning'. A close examination reveals that only the third (B2) meaning has an animate subject. This is an easy construction for Japanese EFL learners, because animate subjects are 'unmarked' in the Japanese language, so they are more familiar to Japanese learners, and therefore easy to process. The reason why *What's going on?* appears to be easier than *The meeting went on . . .* might be that the former is learned as a formulaic expression.

Another example of a phrasal verb with multiple meanings is *belong to*. In the EVP, this phrasal verb in the meaning of 'to own it' is assigned A2; the meaning of 'to be a member of a group or organisation' is B1. However, in our study, the A2 item turned out to be more difficult than the B1 item. The former is -0.29 , and the latter -2.32 . The reason might be that Japanese learners come across the B1 meaning much earlier than the A2 meaning, especially in school contexts, where they use *belong to* to talk about club or extra-curricular activities. Another reason might be that animate subjects are easier for Japanese learners, as is the case with *go on*.

4.2. Limitations of the study

Some limitations need to be noted regarding the present study. One is that although there are 439 phrasal verbs included in the A1–B2 EVP at the time of writing, only 100 of them were tested in this study. If different items had been selected, the results might have been different.

Another possible limitation is that the response to the elicitation device used in the research is different from the writing process of an exam answer. In the latter process, the examinees can decide which expressions to use in the essay by themselves, whereas in the former process, the examinees are required to produce the phrasal verb indicated by the stem of the test item. This difference might have affected the results.

Another limitation might concern the statistical procedure used for this research. While there were only four items at the A1 level, the number of items at the A2–B2 levels was much greater. Therefore, there might be some room for discussion on the validity of the use of a one-way ANOVA in the analysis.

Finally, it should be noted that only Japanese students participated in this study. If the test had been administered to learners with other L1 backgrounds, the results might well have been different.

5. Further research

For further research, three points should be considered. First, any new selection of phrasal verb items should be based on the frequency information from the English textbooks. In this study, test items were pre-selected without taking the frequency of occurrence of phrasal verbs in textbooks into consideration. There could be better candidates for which phrasal verbs to test if the test was initially designed on the basis of textbook corpus analysis. To this end, in a future study, textbook corpora should incorporate high school textbooks as well, in order to cover B1–B2-level vocabulary.

Second, numerical data such as frequencies from native speaker (NS) and non-native speaker (NNS) corpora could add more value to our data analysis, and more complex models, such as generalised linear regression, could be explored using those variables. Third, more advanced learners, such as university students or adult learners of English, should participate in the survey in order to test those items whose accuracy rates were very low.

6. Conclusion

The primary objective of this study was to identify the actual difficulty for Japanese learners of each phrasal verb in the English Vocabulary Profile, and to explore the factors that might explain those difficulties. The results of our analyses show that some items are not necessarily ordered as suggested by the EVP, which might suggest the need to make some adjustments to the CEFR level decisions. While adjustment was made for the level of *leave behind*, we await results from other L1 backgrounds, as there is some concern that the Japanese learning context might not be representative of learners worldwide. We hope that further administrations of the test will happen in other countries, using our test.

As for exploring other factors that could determine the level of a phrasal verb, learner and input factors are worth investigating. Specific L1 characteristics, such as proximity in terms of language family and lexico-grammatical similarities and differences might affect the order and the degree of phrasal verb acquisition. Moreover, learners are greatly influenced by the input they receive from textbooks, classroom activities and all sorts of exposure in real life.

Put in a much wider perspective, it might be possible that there is a core group of linguistic items such as words, phrasal verbs, etc. which show a general pattern of increasing difficulty, whereas there are some peripheral linguistic items that are context-specific or perhaps culture-

specific. The acquisition of those peripheral linguistic items might be affected by the syllabus adopted, teaching materials used, the learner's L1, etc.

Although there are some limitations mentioned above, it is hoped that the results of this study will contribute to the improvement of the A1–B2 EVP, and give more reliable information to the future users of the full resource.

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