



Usage Patterns and Meanings of High-Frequency English Verbs: A Multi-Word Expression Approach to Japanese High School EFL Textbook Analysis

Hiroko Sakaba1*, Takeshi Okada2

¹Graduate School of International Cultural Studies, Tohoku University, 41 Kawauchi, Aoba Ward, Sendai City, Miyagi, Japan ²Institute for Excellence in Higher Education, Tohoku University, 41 Kawauchi, Aoba Ward, Sendai City, Miyagi, Japan **Corresponding Author:** Hiroko Sakaba, E-mail: hiroko.sakaba.r5@dc.tohoku.ac.jp

ARTICLE INFO	ABSTRACT
Article history	This article aims to classify the overall uses of high-frequency English verbs in a novel
Received: March 11, 2021	methodology from both a pattern and meaning perspective, which has not be done in previous
Accepted: May 23, 2021	studies, with special reference to TAKE and MAKE. In the pattern-based analysis, all occurrences
Published: July 31, 2021	of these two verbs were collected from Japanese EFL textbook corpus, and the usage patterns
Volume: 10 Issue: 4	of the extracted two target verbs were categorized into three major multi-word expression
Advance access: July 2021	types: phrasal verbs, grammatical collocations, and lexical collocations. To further investigate
	the patterns of uses, some multi-word units consisting of three to seven words were identified
	as either semi-fixed expressions or fixed expressions. After the pattern-based classification, all
Conflicts of interest: None	the multi-word expressions identified were analyzed from a semantic perspective. This analysis
Funding: The research is partially	revealed the new finding that all uses of IAKE (352) and MAKE (374) obtained from the corpus
financed by KAKENHI	could be successfully classified into the three major multi-word expression categories. With
(Grant-in-Aid for Scientific	respect to the pattern, the proportion of major multi-word expression categories showed similar
Research (B) 18H00683).	results; lexical collocations were the most frequent, and phrasal verbs were the least frequent
	n boin target verbs usage. In terms of meanings, the uses of TAKE were classified in a larger number of compute entropy (42) then MAKE (25). The obtained results have an implication
	that the novel methodology employed in this study is a valid way to the further investigation of

the usage of high-frequency English verbs.

Key words: High-Frequency Verb, Multi-Word Expression, Collocation, Phrasal Verb, TAKE, MAKE, EFL Textbook

INTRODUCTION

Background

The acquisition of high-frequency words plays an essential role in English as a Foreign Language (EFL) learning (Hoshino, 2016; Tono, 2015). In the spoken part of the British National Corpus (BNC), only the top 100 word types cover approximately 67% of the total (Tono, 2015). Among the top 100, 17 verbs were found: be, have, do, get, go, say, know, think, see, come, mean, want, take, look, make, put, and give (Tono, 2015). High-frequency words, including these high-frequency verbs, are usually introduced to EFL learners in the early stage of learning. However, even advanced EFL learners have difficulty utilizing high-frequency verbs (Altenberg & Granger, 2001). What makes it difficult for EFL learners to understand and use high-frequency verbs is the polysemous nature of these verbs. Altenberg and Granger (2001) point out that the high degree of polysemy is caused by two types of meaning extension; one is grammatical or delexicalized uses (e.g., take a walk, make an announcement) and the other is language-specific

collocations or idiomatic uses (e.g., *take it easy, make ends meet*).

Studies on Uses of High-frequency Verbs

There are two main aspects in respect to the usage of a word: pattern and meaning (Hunston & Francis, 2000). According to Hunston and Francis (2000, p.37), "The patterns of a word can be defined as all the words and structures which are regularly associated with the word and which contribute to its meaning." In other words, the observation of a word's patterns involves characteristics of co-occurring words, such as which lexical items co-occurred with the target verb, the number of co-occurring words, and the part-of-speeches of co-occurring words. For example, when a pattern observation of a high-frequency verb TAKE is made as in the sentence I will take care of the problem, take can be classified as a verb + noun + preposition pattern, forming a three-word unit as take care of. From the meaning perspective, the TAKE in take care of from the previous example above is one of the constituents of the meaning to deal with.

Published by Australian International Academic Centre PTY.LTD.

Copyright (c) the author(s). This is an open access article under CC BY license (https://creativecommons.org/licenses/by/4.0/) http://dx.doi.org/10.7575/aiac.ijalel.v.10n.4p.116

Previous literature on the usage of high-frequency verbs focuses on meanings rather than patterns (Gilquin, 2008; Gouverneur, 2008; Hoshino et al., 2017). Gilquin (2008) investigated to which extent the lexical network reflects the actual usage of TAKE by investigating two different types of data: written and spoken language corpora and experimental data. Gilquin (2008) pointed out that the descriptions of senses in Norvig and Lakoff (1987) were too specific and therefore needed some adjustments for empirical uses. As a result of analysis with the adjusted definitions, the sense of "take action to Patient (take-4)" (e.g., John took a punch at Harry) was used the most in both corpora and "take Patient to Destination (take-3)" (e.g., John took the book to *Chicago*) had the highest frequency in the experimental data. Gilquin (2008) showed some examples of usage of TAKE in the corpora and experimental data; however, the observation did not go into patterns of uses of TAKE. In the context of this study, the items in upper cases such as TAKE and MAKE, which will be discussed below, are used as lemmas. Therefore TAKE includes all its manifestation, take, takes. took, taking, and taken, and MAKE includes make, makes, made, and making.

Hoshino et al. (2017) investigated the meaning distribution of TAKE, as the representative of polysemous words in learning materials based on a dictionary such as Stevenson (2010). According to Hoshino et al. (2017), the definition of the most frequently used category was "make undertake, or perform (an action or task)" (23.50%), and the rate of the core meaning of TAKE ("lay hold of (something) with one's hands; reach for and hold") was quite low (1.72%) in the investigated 18 Japanese junior high school English textbooks. This study however did not analyze patterns of use of TAKE in detail, except collocations that were categorized as light verb uses such as *take a bath*.

Gouverneur (2008) took a mixed approach to investigate uses of high-frequency verbs in EFL textbooks focusing on TAKE and MAKE by applying "meanings and patterns" categorization. For MAKE, seven categories were employed: (1) create, produce, (2) causative uses, (3) do/perform, (4) earn, (5) delexical uses, (6) phrasal verbs, (7) other uses. Usage of TAKE was sorted into nine categories: (1) move, (2) eat or drink, (3) phrasal verbs, (4) need, (5) delexical uses, (6) think of in a certain way, and (7) accept, (8) transport, and (9) other uses. Both in TAKE and MAKE, there are more meaning-based categories (e.g., "(4) earn" in TAKE and "(1) move" in MAKE) than pattern-based (e.g., "phrasal verbs" in both TAKE and MAKE).

Vázquez (2018) investigated the usage of two high-frequency verbs TAKE and MAKE by Spanish and Italian learners of English by comparing them to native speakers. Vázquez (2018) classified the uses of TAKE into the following five categories that were adapted from Altenberg and Granger's (2001) framework: (1) free verb + noun combination, (2) non-delexical verb + noun collocations and other idiomatic expressions, (3) delexical verb + noun, (4) phrasal/ prepositional verbs, and (5) indeterminate. The result showed that delexical use was the most frequent both in learners' and native speakers' utterances (45% in Spanish speakers, 57% in Italian speakers, and 45% in native speakers). These categories are more pattern-based than the three studies presented above. Although co-occurring words of delexical TAKE and main idiomatic expressions were introduced, patterns in other categories were not discussed in detail. Also, pattern and meaning perspectives are rather mixed in the definitions of categories, especially in the second category, mentioning "idiomatic expressions".

Research Problem

In the previous studies, two challenges remain to comprehend the usages of high-frequency verbs. Firstly, the overall characteristics of patterns that high-frequency verbs form, such as the number of words as a unit or part-of-speech of the target verbs' co-occurring words, are not clearly demonstrated. This is because most studies have focused on the meaning aspect and have not focused on the patterns of uses of high-frequency verbs (Gilquin, 2008; Hoshino et al, 2017; Gouverneur, 2008). Vázquez (2018) looked into pattern aspects, such as verb + noun combination, more than the other three previous studies; yet, the classification was not completely based on patterns. Secondly, the categories employed to investigate the usages of high-frequency verbs are specific to the lexical item (Gilquin, 2008; Gouverneur, 2008; Hoshino et al., 2017; Vázquez, 2018). This means that the categories employed in the previous studies are valid for only a specific verb, and they are insufficient to analyze multiple high-frequency verbs. What is missing is a unified criterion dealing with multiple high-frequency verbs in order to make direct comparisons that illustrate the characteristics of high-frequency verbs' usages. To understand the overall uses of high-frequency verbs both from pattern and meaning aspects, (1) pattern-based categories that can be applied to multiple high-frequency verbs should be created and employed, and (2) two separate standards for phraseological patterns and for meaning should be applied.

Purpose of the Study

This study aims to investigate overall uses of high-frequency verbs in the target corpus from two major aspects, patterns and meanings, by focusing on TAKE and MAKE. The reasons why we selected these two verbs to investigate is that TAKE is one of the verbs that has the widest meaning among English high-frequency verbs (Tanaka, 2019), and TAKE can express basic actions, has metaphorical senses, and occurs in idioms (Norvig & Lakoff, 1987). MAKE is also being focused as a representative of English high-frequency verbs (e.g., Altenberg & Granger, 2001).

In this study, we identify meaningful units that consist of at least two words including TAKE or MAKE that are both adjacent and nonadjacent as multi-word expressions. Some of the major patterns involve two high-frequency verbs are verbs + nouns (e.g., *TAKE pictures, MAKE mistakes*), verbs + particles (e.g., *TAKE out, MAKE up*), verbs + adjectives (e.g., *MAKE X happy*), and verbs + nouns + particles (e.g., *TAKE advantage of*). Multi-word expressions have been gaining attention in applied linguistics (e.g., Mirzai et al., 2020), especially in English language teaching and learning field (e.g., Narita et al., 2018; Wijitsopon, 2018). Narita et al. (2018) and Wijitsopon (2018) investigated multi-word expressions with the primary focus on their functions in EFL learners' argumentative essays. Unlike these previous studies, the present study pays exclusive attention to multiword expressions containing particular lexical items, TAKE or MAKE, which is a unique property in the multi-word expression research. This paper investigates the following three questions:

RQ1: Can usage patterns of TAKE and MAKE be classified into multi-word expressions in the target corpus?

RQ2: What patterns do TAKE and MAKE form in the target corpus?

RQ3: What are the meanings of usages of TAKE and MAKE in the target corpus?

DATA AND METHODOLOGY

The Corpus

The data used for this study were EFL textbooks in Japan. This study was developed from the first author's master's thesis. The goal of the thesis was to contribute to English education in Japan with a particular focus on teaching how to utilize high-frequency verbs. The teaching method to be developed needs to be able to explain the uses of high-frequency verbs in the target learners' learning materials. Since EFL textbooks are one of the main learning materials of the English language for Japanese EFL learners, they were selected to investigate the language information taught.

The sources of this analysis consist of 12 senior high school English textbooks, approved by the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT) that were published in 2017. Among 36 different *English Communication I* textbooks published by 14 companies and 28 kinds of *English Expression I* textbooks published by 15 companies, six from each group were selected (Appendix A). These 12 textbooks were selected because they were the most widely used textbooks among senior high schools in Japan when the research was conducted. According to MEXT (2009), *English Communication I* is the only mandatory subject among seven English subjects whose objective is to develop all four skills: reading, writing, listening, and speaking. *English Expression I* aims for students' speaking and writing skill enhancement.

All 12 textbooks were made into digital text format and created into a Japanese EFL textbook corpus (JEFLTC) containing 128,588 running words. Parts-of-speech (POS) tags were assigned with software TagAnt 1.2.0 (Anthony, 2015) to identify verb TAKE and MAKE in the corpus.

Five Categories of Multi-word Expressions

The definition of multi-word expressions in this study is 2- to 7-word phrases that (1) contain TAKE or MAKE and (2) have a unit of meaning. The length of multi-word expressions was decided based on Lewis (1997, p.33), who states that "they (= expressions) do not normally exceed seven

words." In terms of criteria (2), in the example sentence *I* will take care of the issue, both take care of and will take care are three-word phrases that contain TAKE. The former phrase has a unit of meaning (*deal with*) whereas the latter is not a meaningful unit. Therefore, take care of is considered as a multi-word expression but will take care is not. Under this definition of multi-word expressions, we created five categories (Table 1).

Among the five categories of multi-word expressions, three categories are two-word phrases: phrasal verbs, grammatical collocations, and lexical collocations. The definitions of these three categories of expressions are based on Benson, Benson, and Ilson (2010) (hereafter BBI). Articles are not counted as one word in these three types of expressions because articles do not have lexical meaning, and BBI does not include co-occurring patterns with articles in any of these three categories.

The remaining two categories, semi-fixed and fixed expressions, consist of three to seven words. The difference between these two expressions is whether they contain slots (semi-fixed expression) or not (fixed expression). '...' in the example expressions in Table 1 indicates a slot where limited lexical items can be inserted to make a complete expression. The placement of slots can be within the expression (e.g., *TAKE... into consideration*) or at the end (e.g., *TAKE care of...*). Articles are counted as one word in these two expressions because the purpose of establishing the two sub-categories, i.e. semi-fixed and fixed expressions, was to investigate patterns in detail.

Procedure

We categorized usage patterns of TAKE and MAKE into five types of multi-word expressions and then classified them semantically. Multi-word expressions were extracted manually since their meanings need to be confirmed carefully during the process of identification. Figure 1 illustrates the flow of identifying multi-word expressions. The procedure of classifying the usage patterns of high-frequency verbs into multiword expressions consists of five major steps.

Firstly, concordance lines that included all forms of the verb TAKE (*take, takes, took, taking,* and *taken*) and MAKE (*make, makes, made, making*) were extracted using AntConc 3.4.4 (Anthony, 2014) and prepared for analysis in spread-sheet format.

Secondly, the segments of investigation were extracted from each concordance line. On the procedure for investigating the patterns of verb usages in concordance lines, Hunston and Francis (2000) suggest sorting to the right because most verbs have complementation patterns. Therefore, all the concordance lines which contained TAKE or MAKE were right sorted, and TAKE/MAKE + complements were primarily paid attention to and extracted. For example, in the case of the sentence *I will take care of the issue, take care of the issue* was extracted. When looking at the only right part of these verbs was not enough to comprehend the usage, the subject clauses were extracted. The maximum number of words extracted was seven in accordance with the definition of multi-word expressions in this study.

Category	Form	# of words	Example
Phrasal verbs	TAKE + away, back, down, in, off, on, out, over, up	2	TAKE + up
	MAKE + away, off, out, over, up		
Grammatical	TAKE or MAKE + particles	2	TAKE + to
collocations	(excluding conjunctions and particles identified as phrasal verbs)		
Lexical collocations	TAKE or MAKE + adjectives, adverbs, verbs, and pronouns	2	TAKE + time
Semi-fixed expressions	Units of three to seven words (including articles), contain at least one slot	3 - 7	TAKE care of
Fixed expressions	Units of three to seven words (including articles), do not contain slots	3 - 7	Take it easy

Table 1. Five categories of multi-word expressions



Figure 1. Flowchart identifying multi-word expressions

Thirdly, we identified one word as a collocate of the target verbs from each segment. A collocate is one of the co-occurring words with the target verbs extracted in a segment that is essential to comprehend the meaning of the target verbs' usage. For example, in the case of a segment take care of the issue, the word care was identified as the collocate of TAKE. We counted compound words, such as instant noodles, as a single item. When there was no appropriate word to identify a collocate on the right side of the target verbs in the concordance lines, including passive voice or interrogative sentences, we selected a collocate from the co-occurring words on the left side of the target verbs. For example, in the sentence These pictures were taken by my grandfather, we identified pictures as the collocate of TAKE. There was one exceptional case: when there were multiple objects listed of the target verbs, all of the objects were identified as collocates. In this

case, the frequency is calculated by dividing 1 by the number of collocates identified. For example, if there is a concordance line such as *I made some coffee and cakes*, two nouns *coffee* and *cakes* are identified as collocates because they are both objects of the verb *made*. In this case, we count the frequency as 0.5 for each of the lexical item, by dividing 1 by 2.

Fourthly, based on the part-of-speech of a given collocate, all TAKE/MAKE + collocates were categorized into three major multi-word expression types: lexical collocations, grammatical collocations, and phrasal verbs. TAKE/MAKE + content words were categorized as lexical collocations. TAKE/ MAKE + function words were categorized as grammatical collocations except for the two sets of particles (set A and B indicated in Figure 1). TAKE + six types of particles (*away, back, down, on, over*, and *up*) and MAKE + five types of particles (*away, off, out, over,* and *up*) were classified as phrasal verbs (Set A in Figure 1). In the case of TAKE, three types of particles *in, off,* and *out* were categorized with special care because the co-occurrences with these particles could be identified as phrasal verbs and grammatical collocations (Set B in Figure 1). This distinction was made by considering meanings using BBI as reference and other English learners' dictionaries.

Finally, some usage patterns found in the three major multi-word expression categories were further categorized as semi-fixed expressions or fixed expressions. These two sub-categories were created to classify expressions consisting of more than two words such as TAKE care of. We used four criteria to identify these two categories: (1) The number of words of multi-word expressions was between three and seven including TAKE or MAKE and articles were counted as words. Verb forms and singular or plural forms differentiated words. (2) The frequency of the multi-word expressions was two or more. (3) The range of three-to-seven-word units was two or more. This means that the three-to-seven-word units need to occur at least in two different textbooks of the 12. This criterion was employed to identify expressions widely used in JEFLTC. (4) The frequency of a three-to-seven-word unit exceeded more than half of its lexical collocation's frequency. For example, if the frequency of TAKE advantage (a lexical collocation) is 10 and the frequency of TAKE advantage of (a three-word unit) is eight, TAKE advantage of meets this criterion because the frequency exceeds more than 5, which is half of TAKE advantage's frequency (10); however, if TAKE advantage of has a frequency of four, it would not meet this criterion since it does not exceed more than half of TAKE advantage's frequency (10). The ones that had a slot in the multiword expression were identified as semi-fixed expressions, and the ones without slots were grouped into fixed expressions.

After classifying all the uses of TAKE and MAKE, the meanings of the expressions were categorized based on the English Vocabulary Profile (EVP). EVP was chosen as the main reference for the semantic categorization because it contains meanings of verbs (e.g., take (CARRY) in Figure 2), phrasal verbs, and idioms, all of which have CEFR (Common European Framework of Reference for Languages) levels labeled. In the American English EVP, the number of entries that involves the verb TAKE was 97, and British English EVP had 99 entries. Since the majority of the items overlapped, the total

number of entries was 101. As for MAKE, the total number of entries was 61: 57 entries for American English and 61 entries for British English. The present study calls these 101 entries for TAKE and 61 entries for MAKE "EVP based semantic categories" (e.g., CARRY, GO WITH SOMEONE, and take a picture/ photo(graph) in Figure 2) and we classified these two verbs' usages semantically based on these semantic categories.

RESULTS AND DISCUSSION

Can Usage Patterns of TAKE and MAKE be Classified into Multi-word Expressions in the Target Corpus?

To answer the first question, we first collected all the occurrences of TAKE and MAKE in JEFLTC. The frequency of the verb TAKE was 352 and MAKE was 374 in JEFLTC. By following the procedure explained in the previous section, all of the uses of TAKE and MAKE found in JEFLTC were successfully categorized into three major types of multiword expressions: phrasal verbs, grammatical collocations, and lexical collocations (Table 2). This successful categorization is important because it suggests that the novel methodology employed in this study to classify the uses of multiple high-frequency verbs from the grammatical patterning perspective was validated. For example, previous studies had a miscellaneous category for uses that did not fall into major categories ("indeterminate" in Vázquez (2018), "other" in Altenberg & Granger (2001), and "other uses" in Gouverneur (2008)) while this new methodology could classify all uses without reference to this miscellaneous category.

Table 2.	Distribution	of main	multi-word	expression
categorie	s			

0				_
Category	TA	KE	MAKE	
	Raw Freq.	%	Raw Freq.	%
Phrasal verbs	13	3.7	7	1.9
Grammatical collocations	39	11.1	29	7.8
Lexical collocations	300	85.2	338	90.4
Total	352	100.0	374	100.0

	Summary view
+ Word family	
 take (CARRY) A1 to get and carry something with you when you go somewhere 	
 take (GO WITH SOMEONE) A1 to go somewhere with someone, often paying for them or being responsible for them 	n
 take a picture/photo(graph) A1 to photograph someone or something 	

Figure 2. The partial entry of TAKE in EVP

Also, the fact that all uses of these verbs in the target corpus were sorted out by the same classification system makes it possible to compare the patterning of these two verbs. As a result of this comparison, the similar tendency was observed. The majority of target verbs' uses were classified as lexical collocations (85.2% in TAKE, and 90.4% in MAKE) followed by grammatical collocations and phrasal verbs.

Some of the uses that met the four criteria (see Procedure section) were then identified as semi-fixed and fixed expressions. 34.9% of all the uses of TAKE (e.g., *TAKE a bus*) and 11.0% of all the uses of MAKE (e.g., *make a reservation*) in JEFLTC were classified into sub-categories (Table 3). The frequency of these two types of expressions involving TAKE exceeded MAKE's. What this result suggests is that it is worth investigating under this classification system the patterns and meanings of high-frequency verbs in more detail because it was successfully shown that units of meanings that involve more than three words could be identified by this framework.

What Patterns do TAKE and MAKE form in the Target Corpus?

To answer the second question, we investigated collocates of TAKE and MAKE in JEFLTC via each multi-word expression category explained in the Data and Methodology section. We first present the results and discussions of three major categories of multi-word expressions: phrasal verbs, grammatical collocations, and lexical collocations. Then results of two sub-categories, semi-fixed and fixed expressions, are presented and discussed.

Phrasal verbs

Phrasal verbs were the smallest portion among the three major categories for both TAKE and MAKE as mentioned in the previous section. In terms of TAKE, 13 out of 352 occurrences were categorized into phrasal verbs including six types of particles (Table 4). On the other hand, only one type of particle, *up*, co-occurred with MAKE as a phrasal verb. Seven out of 374 uses of MAKE were identified as phrasal verbs.

Although the semantic analysis will be discussed in the next subsection, there is an important finding that should be addressed here. All types of phrasal verbs, both with TAKE and MAKE, were used as a single meaning. For example, even the ones that occurred multiple times, such as *TAKE* out or MAKE up, had only one meaning in the investigated corpus. However, according to Gardner and Davies (2007), phrasal verbs have 5.6 meanings per phrasal verb on average. Therefore, we can conclude that the characteristics of these two verbs as phrasal verbs are that TAKE was used as a wider variety of types than MAKE, and the meaning of each phrasal verb was limited in both TAKE and MAKE.

Grammatical collocations

Not only the frequency of grammatical collocations of TAKE exceeded MAKE, but a wider variety of particles were also found in grammatical collocations involving TAKE (Table 5). 39 grammatical collocations involving

 Table 3. Distribution of multi-word expression

 sub-categories

Category	TAKE		MAKE	
	Raw Freq.	%	Raw Freq.	%
Semi-fixed expressions	69	19.6	16	4.3
Fixed expressions	54	15.3	25	6.7
Total	123	34.9	41	11.0

Table 4. Collocates of phrasal verbs

TAKE			Ν	IAKE	
Collocate	Raw freq.	%	Collocate	Raw freq.	%
out	4	30.8	up	7	100.0
away	3	23.1			
over	2	15.4			
in	2	15.4			
back	1	7.7			
off	1	7.7			
Total	13	100.0	Total	7	100.0

Table 5. Collocates of grammatical collocations

TAKE			N	IAKE	
Collocate	Raw freq.	%	Collocate	Raw freq.	%
to	20	51.3	of	13	44.8
off	11	28.2	from	9	31.0
for	2	5.1	into	4	13.8
by	1	2.6	with	3	10.3
from	1	2.6			
with	1	2.6			
whatever	1	2.6			
wherever	1	2.6			
whichever	1	2.6			
Total	39	100.0	Total	29	100.0

TAKE included 9 types of particles, however, only 4 types of particles were found in the case of MAKE.

In both cases of TAKE and MAKE, the ratio of each type of particle was uneven. About half of all the grammatical collocations were TAKE + to (51.3%), making it the most frequent in this category. Further, most of the patterns of TAKE + to were TAKE someone to somewhere (e.g., take her to the hospital, took me to many places, take you to your host families). Some of the examples of the second largest portion TAKE + off included take off your shoes and took off his jacket. As for MAKE, co-occurrences with the particle of had the highest ratio (44.8%) among grammatical collocations involving MAKE. All occurrences of the particle of, except in one concordance line, were used in the passive voice. For example, this bridge is made of stone, or not every canoe is made of wood.

Lexical collocations

For lexical collocations, the most frequent uses of the two target verbs among the major categorizations, two-word combinations consisting of TAKE/MAKE and nouns, pronouns, adjectives, adverbs, or verbs were classified. As Figure 3 shows, more than 90% of lexical collocation involving TAKE co-occurred with nouns. Also, 5.3% of pronouns and 3.0% of adverbs co-occurred with TAKE. In terms of MAKE, two kinds of part-of-speech that did not co-occur with TAKE, adjectives (21.9%) and verbs (16.9%), were found in addition to nouns (58.9%).

69 types of lexical items were found in lexical collocation involving TAKE (see Appendix B). This indicates that each lexical item is used four to five times in JEFLTC if all types of lexical items occurred the same number of times. However, it turned out that the ratio of the sum of the top eight types of lexical items (*PICTURE, care, part, bath, photo, it, walk,* and *look*) exceeded 50%. The total number of lexical items that were used only once was 32, which is 10.6% of all the TAKE lexical collocations.

In contrast with TAKE, MAKE co-occurred with a much wider variety of lexical items. 338 lexical collocations involving MAKE were obtained, and 156 types of lexical items were found (see Appendix C). It takes the ratio of the sum of the top 25 types of lexical items to go beyond half of all lexical collocations involving MAKE. The total number of lexical items that were used once or less was 95 types, which is 26.3% of all the lexical collocations involving MAKE.

These findings can be summed up in two points: One is that the proportion of each type of lexical collocation is less balanced in TAKE than MAKE. The other is that MAKE (156 types) co-occurred with a much wider range of lexical items than TAKE (69 types).

From the methodological point of view, it needs to be mentioned that there was a good amount of co-occurring patterns involving other part-of-speeches besides noun especially in MAKE. This finding is important because collocation studies involving verbs have tended to focus specifically on verb-noun collocation (Vázquez, 2018). The frequency of verb-noun collocations in this study was 275 out of 352 occurrences of TAKE and 199 of 374 occurrences of MAKE (Table 6). In other words, 21.9% of TAKE and 46.8% of



Figure 3. Proportion of collocates' part-of-speech in lexical collocation

MAKE were classified as other types of multi-word expressions besides verb-noun collocations. This suggests that more than 20% of TAKE usages and almost half of MAKE usages would have been excluded from the analysis if we only focused on verb-noun collocations.

SEMI-FIXED EXPRESSIONS

When taking a closer look at all the concordance lines that contain one type of lexical collocation (e.g., *TAKE care*), it is clear that some co-occurring patterns involve more than two words (e.g., *TAKE care of*). This means that some units of meanings exceed two-word combinations. Therefore, the scope was widened to three-to-seven including TAKE or MAKE.

Six types of semi-fixed expressions including TAKE (TAKE SE) were identified (Table 7). The capitalized partof-speech types show the slots. For example, *TAKE care of N* becomes one complete expression by inserting a noun in N, such as *a baby. TAKE care of*, the most frequent semi-fixed expression, was used 34 times out of 36 times as their lexical collocation *TAKE care.* The part-of-speech of the slots in TAKE SE was a noun, verb, or numeral. All TAKE SEs except *TAKE N out of N* contained only one slot. In terms of the number of words, the shortest expression was a threeword unit, and the longest was a five-word unit (*how long it TAKE to X*). When compared among the six types of TAKE SEs, *TAKE care of N* and *TAKE part in N* occurred with relatively high frequency (34, 16 respectively) and high range (10, 9 respectively).

Table 6.	Distribution	of verb-noun	collocations	and
others				

Category	TAKE		MAKE	
	Raw	%	Raw	%
	rreq.		rreq.	
Verb-noun collocations	275	78.1	199	53.2
Others	77	21.9	175	46.8
Total	352	100.0	374	100.0

Table	7.	Semi-fix	ed expression	s invol	ving TAKE
-------	----	----------	---------------	---------	-----------

Semi-fixed expressions	Raw Freq. as SE	Raw Freq. as LC	SE / LC (%)	Range
TAKE care of N	34	36	94.4	10
TAKE part in N	16	19	84.2	9
take a look at N	10	10	100.0	4
TAKE about # hours	3	4	75.0	3
how long it TAKE to X	3	4	75.0	2
TAKE N out of N	3	4	75.0	2
Total	69			

N, V, ADJ, X, # are slots (N: nouns, V: verbs, ADJ: adjectives, X: N or V, #: numerals) ():optional elements

Table 8 shows that five types of semi-fixed expressions involving MAKE (MAKE SE) occurred 16 times total. Three types of part-of-speech were observed as a slot in MAKE SE: a noun, verb, and numeral. Two out of five types of MAKE SE contained two slots within an expression (made N interested in N and makes it harder for N to V). The shortest MAKE SEs consisted of three words and the longest were five-word units. Overall, both the frequency and range of MAKE SE were low. The most frequently used was made a speech at the N (8), whose range was four out of 12.

When comparing TAKE SEs and MAKE SEs, we found two major differences. The first difference is that the total number of frequency of semi-fixed expressions was much higher in TAKE than MAKE. The relatively high frequency of *TAKE care of N* and *TAKE part in N* resulted in increasing the total number of occurrences of TAKE SEs. The second difference is that these two types of semi-fixed expressions have higher idiomaticity than the rest of the types shown in Table 7 and Table 8. In other words, idiomatic expressions were found in TAKE SEs whereas there were no idiomatic MAKE SEs. These findings imply that TAKE tends to form more formulaic and idiomatic structures than MAKE.

Fixed expressions

Out of 13 types of fixed expressions involving TAKE (hereafter, TAKE FEs), the pattern of eight types was TAKE + a/an + N (Table 9). These patterns are delexical structures, such as *TAKE a bath, take a nap*, and *take a deep breath*. In terms of the number of words, three-word expressions, the shortest among fixed expressions, were the majority. Seven types of TAKE FEs consisted of three words, and all of them were the delexical uses mentioned above. The longest fixed expression (*It takes two to make a quarrel*) consisted of seven words. This expression was the only proverb found in the TAKE FE category.

Nine types of fixed expressions involving MAKE (MAKE FEs) were identified (Table 10). The shortest MAKE FEs were three-word expressions, including *MAKE a cake*, and the longest consisted of 10 words (*All work and no play makes Jack a dull boy*). This proverb was the only expression that exceeded seven words, which is the maximum number of words to be considered as a multi-word

Table 8. Semi-fixed expressions involving MAKE

Semi-fixed expressions	Raw Freq. as SE	Raw Freq. as LC	SE / LC (%)	Range
made a speech at the N	8	13	61.5	4
made N interested in N	2	3	66.7	2
make a group of #	2	2	100.0	2
makes it harder for N to V	2	2	100.0	2
made a promise to V	2	2	100.0	2
Total	16			

expression in this study. Like TAKE FEs, MAKE FEs had delexical uses (*make a reservation*, and *make a stop*).

In sum, wider varieties of fixed expressions were identified involving TAKE rather than MAKE. Examining the patterns of fixed expressions also identified delexical use, one of the characteristic usages of TAKE and MAKE. As for the similarities, proverbs were the longest fixed expressions in the case of TAKE and MAKE.

Table 9. Fixed expressions involving TAKE

Fixed	Raw Freq.	Raw Freq.	FE /	Range
expressions	as FE	as LC	LC (%)	-
TAKE a bath	13	14	92.9	8
TAKE a walk	11	12	91.7	7
TAKE a taxi	6	6	100.0	3
TAKE a bus	3	4	75.0	3
Can I take your order?	3	4	75.0	2
TAKE an airplane	3	3	100.0	2
take a nap	3	3	100.0	2
Please take this seat	2	3	66.7	2
TAKE many years	2	2	100.0	2
I'll take this	2	2	100.0	2
take a deep breath	2	2	100.0	2
TAKE a shower	2	2	100.0	2
It takes two to make a quarrel	2	2	100.0	2
Total	54			

Table 10. Fixed expressions involving MAKE

Fixed	Raw Freq.	Raw Freq.	FE /	Range
expressions	as FE	as LC	LC (%)	
MAKE a cake	5	9	55.6	4
make a reservation	5	5	100.0	3
make yourself understood	3	4	75.0	3
make a stop	2	3	66.7	2
All work and no play makes Jack a dull boy	2	2	100.0	2
made me clean my room	2	2	100.0	2
how to make muffins	2	2	100.0	2
a pair of shoes made in Italy	2	2	100.0	2
make you study hard	2	2	100.0	2
Total	25			

From the methodological perspective, the extraction of semi-fixed and fixed expressions resulted in identifying phraseological expressions such as delexical uses and idiomatic expressions. This is important because these are two usages of high-frequency verbs that previous studies considered as major usages: Altenberg & Granger, (2001), Gouverneur (2008), and Vázquez (2018) had "delexical usages" and Vázquez (2018) had "non-delexical verb + noun collocations and other idiomatic expressions" in their categories of major uses of high-frequency verbs.

What are the Meanings of Usages of TAKE and MAKE in the Target Corpus?

To answer the final research question, we sorted out the usage meanings of TAKE and MAKE found in JEFLTC using EVP as the main reference. Since the multi-word expressions were already identified prior to the semantic analysis, the meanings of these verbs' complete usages were classified systematically and efficiently.

As a result of the semantic classification, 352 uses of TAKE were classified into 42 semantic categories and 374 uses of MAKE were sorted into 25 categories (Table 11). The majority of uses of both high-frequency verbs were categorized based on EVP: 94.0% of all the uses of TAKE and 97.1% of all uses of MAKE are EVP based semantic categories. This result indicates that EVP is valid for semantic categorization of high-frequency verbs. The rest of the classification was made using BBI and English learners' dictionaries, except for two expressions that did not fall into any definitions: *take that/it* and *take care to*. Therefore, corpus-driven semantic categories were created for these uses.

Another finding was that the meanings of these two high-frequency verbs' usage were limited. Only 33.7% of all the EVP based categories were being used for TAKE and only 34.4% for MAKE. This is interesting because it indicates that more than half of what these verbs can express are not treated in the investigated EFL textbooks.

Figure 4 displays the top EVP based 15 semantic categories. In terms of TAKE, it takes only the top five categories to make up more than half of all the semantic categories: take a picture/photo(graph) (16.2%), PERFORM ACTION (15.9%), [LOOK AFTER] take care of sb/sth (9.4%), TRAVEL (7.1%), and GO WITH SOMEONE (6.8%). A picture/photo(graph) category was the highest and 16.2% of all the uses extracted indicating that this meaning was used 1/6th of the time. For the second-largest portion, PERFORM ACTION, 12 types of lexical items were used (*bath*, *walk*, *look*, *sip*, *seat*, *step*, *breath*, *shower*, *lead*, *navigation*, *revenge*, and *trip*). For the expression *take care of*, there are two semantic categories in EVP: "to look after someone or something" and "to be responsible for dealing with something". However, most of the usages of *take care of* appeared as the former meaning (33) except one occurrence that appeared as the latter. The definition of TRAVEL is "to travel somewhere by using a bus, train, car, etc." and transportation such as *train*, *taxi*, and *bus* were included. For the category WITH SOMEONE, function word *to* (75.0%) had the highest frequency among all the lexical items sorted into this category (see the second paragraph of Grammatical collocations section for the examples of the grammatical collocation TAKE + to).

Compared with TAKE, the distribution of the meaning of MAKE's usage was more uneven. The sum of the top two semantic categories' percentages exceeded way over 50.0%. The most frequently used was PRODUCE (32.6%) and the second was CAUSE (30.5%). In the PRODUCE category, 75 types of lexical items, nouns or pronouns, were classified such as *CAKE, dinner,* and *products*. In the second-largest category CAUSE, 35 types of lexical items were classified. Most of them were either adjectives (e.g., *HAPPY, better, sad*) or verbs (e.g., *feel, think, laugh*). Therefore, we can conclude that the wider variety of collocate types resulted in a more prominent uneven distribution of meaning in usage of MAKE rather than TAKE.

Even though the collocates of MAKE had a much wider variety of types as mentioned in Lexical collocations section, the meanings of multi-word expressions involving MAKE were classified into a lesser number of semantic categories than TAKE. This phenomenon can be explained by the fact that approximately two-thirds of word types were found in the top two largest semantic categories of MAKE. In PRODUCE, the largest semantic category of MAKE, we found 75 types of collocates, and in CAUSE, the second-largest category, 35 types were found (see Appendix C). In these cases, MAKE seems to give a larger semantic contribution than its collocates to the multi-word expressions involving MAKE. In other words, the meanings of PRODUCE (e.g., make cakes) and CAUSE (e.g., make me happy) seem to be denoted from MAKE. On the other hand, we found a wider variety of meanings in the usage of TAKE, and each semantic category had limited types of collocates compared to MAKE. For example, the meanings of the two largest semantic categories "take a picture/photo(graph)" and "take care of sb/sth" were so specific that only a few types of collocates were classified in these categories.

Connecting Pattern and Meaning Perspectives

Taking the analyses from pattern and meaning together, one can see the degree of delexical usages of the two high-frequent verbs in question. According to Wang (2016), delexical usage can be identified when there is a semantic equivalence of the

Table 11. Number of semantic categories	used
---	------

	JEFLTC						Ref.	9	6
	EVP based non-EVP based		EVP based	Total		(d) EVP	(a)/(d)	(b)/(c)	
	(a) Cate.	(b) Raw freq.	Cate.	Raw freq.	Cate.	(c) Raw freq.			
TAKE	34	331	8	21	42	352	101	33.7	94.0
MAKE	21	363	4	11	25	374	61	34.4	97.1

"Ref" is Reference, "Cate." is Categories, and "Raw freq." is Raw frequencies



Figure 4. Ratio of the top 15 EVP based semantic categories (%)

verb + noun collocations (e.g., *make a decision*) to a lexical verb (e.g., *decide*). As mentioned above, MAKE carries the central meaning in the top two semantic categories (PRODUCE and CAUSE). The collocates in these categories are not deverbal nouns and there are no semantically equivalent lexical verbs to the multi-word expressions in these categories. It means that the two largest semantic categories of MAKE were non-delexical usages. On the contrary, the top three semantic categories of TAKE were delexical usages; multi-word expressions of these categories (e.g., *TAKE a photograph, TAKE a bath,* and *TAKE care of*) have semantically equivalent lexical verbs (e.g., *photograph, bath,* and *care*). In short, TAKE tended to be used delexically more than MAKE in the corpus.

As for the current methodology, we listed all the lexical items that co-occurred with TAKE (Appendix B) and with MAKE (Appendix C) under each semantic category. The information provided in these tables is valuable because it encourages understanding the overall relationships between the meanings and patterns of high-frequency verbs' usage. In the previous literature, the overall tendency of which collocate appeared as which meaning was not clearly demonstrated: Gilquin (2008) and Gouverneur (2008) provided selected example sentences, while Altenberg and Granger (2001), Hoshino et al. (2017) and Vázquez (2018) provided collocates in only a selected semantic category, and Altenberg and Granger (2001) listed collocates that occurred frequently that had no reference to semantic categories. Therefore, our new classification must have a considerable significance in applying two separate standards for phraseological patterns and for meaning produced summaries that show associations between meanings and collocates of all the usages of the two target verbs.

CONCLUSION

The goal of the present study was to classify the overall usages of high-frequency English verbs from both a pattern and meaning perspective, since previous studies had investigated limited pattern and meaning usages of verbs rather than complete ones. In terms of patterns, all 352 occurrences of TAKE and 374 occurrences of MAKE extracted from JEFLTC were successfully classified into the three major multi-word expression categories with no reference to a miscellaneous category. The majority of uses were classified into lexical collocations and the smallest portion was classified as phrasal verbs for both TAKE and MAKE. Some of the uses of these verbs were then further identified as semifixed and fixed expressions. Common findings between these two categories are that three-word expressions were the most frequent and shorter expressions were extracted more often than longer ones. In fixed expressions, proverbs and delexical uses were found. In semi-fixed expressions, some idiomatic expressions were found.

In terms of meanings, one finding was that the uses of TAKE were categorized into a larger number of semantic categories than MAKE. Another finding was that the distribution of the meaning of MAKE's usage in the investigated corpus was more uneven than TAKE. Tying the results of the analysis on patterns and meanings together suggests that this new approach to investigate multi-word expressions has the potential of revealing the degree of delexical nature, one of the prominent characteristics of high-frequency verbs.

The present findings can be beneficial not only for all English teachers and textbook editors in Japan but also internationally. Understanding what is introduced to EFL learners in their textbooks inform decisions on what needs to be taught in the supplementary teaching materials. Firstly, even though learning phrasal verbs is one of the biggest obstacles for EFL learners, uses of TAKE and MAKE as phrasal verbs had the lowest frequency in the target corpus. This finding suggests that phrasal verbs should be given more attention in English teaching in Japan. Secondly, the majority of all uses of the two high-frequency verbs investigated in this study were semantically classified by utilizing EVP as the major reference. Since CEFR levels are labeled for each entry, it can be a useful reference not only for English Linguistics purposes but also for pedagogical purposes internationally.

Furthermore, the current study can also provide an initial step toward developing a theoretical framework for teaching and learning English high-frequency verbs utilizing the scope of multi-word expressions. Since the data of this study is limited to a part of EFL textbooks used in Japan and since only two verbs were investigated, further investigation is required to corroborate the results. Therefore, other high-frequency verbs with a wider variety of data such as written and spoken corpora by both native-speakers and EFL learners should be investigated in future research in the same manner to test the validity of the methodology used in this study. Also, other statistical approach based on the mutual information score will be useful in demonstrating the strength of co-occurring words and should be incorporated in future studies.

ACKNOWLEDGEMENT

This study was partially supported by KAKENHI (Grant-in-Aid for Scientific Research (B) 18H00683).

REFERENCES

- Altenberg, B., & Granger, S. (2001). The grammatical and lexical patterning of MAKE in native and non-native student writing. *Applied linguistics*, 22(2), 173–195. https://dx.doi.org/10.1093/applin/22.2.173
- Anthony, L. (2014). AntConc (Version 3.4.4) [Computer Software]. Tokyo, Japan: Waseda University. Available from http://www.laurenceanthony.net/software.html
- Anthony, L. (2015). TagAnt (Version 1.2.0) [Computer Software]. Tokyo, Japan: Waseda University. Available from http://www.laurenceanthony.net
- Benson, M., Benson, E., & Ilson, R. F. (2010). *The BBI combinatory dictionary of English (3rd ed.)*. Amsterdam, Netherlands: John Benjamins.
- Gardner, D., & Davies, M. (2007). Pointing out frequent phrasal verbs: A corpus-based analysis. *TESOL Quarterly*, 41(2), 339–359. https://dx.doi. org/10.1002/j.1545-7249.2007.tb00062.x
- Gilquin, G. (2008). Taking a new look at lexical networks. *Lexis*, 1, 23-39. https://dx.doi.org/10.4000/lexis.757
- Gouverneur, C. (2008). The phraseological patterns of high-frequency verbs in advanced English for general purposes: A corpus-driven approach to EFL textbook analysis. In F. Meunier and S. Granger (Eds.), *Phraseology in Foreign Language Learning and Teaching* (pp. 223–243). Amsterdam, Netherlands: John Benjamins.
- Hoshino, Y. (2016). Which meanings of basic words appear in English reading tests with various difficulties?: Focusing on polysemy. *Annual Review of English Language Education in Japan*, 27, 33–48. https://dx.doi.org/10.20581/arele.27.0_33
- Hoshino, Y., Sakata, N., Morimoto, S., Matsukubo, A., & Tsubaki, M. (2017). The meaning distributions of a polysemous word in two kinds of EFL learning materials. *Journal of Bunkyo Gakuin University Department of Foreign Languages*, 17, 35–56. Retrieved from https:// www.u-bunkyo.ac.jp/center/library/17.html
- Hunston, S., & Francis, G. (2000). *Pattern grammar* (vol.4). Amsterdam, Netherlands: John Benjamins.
- Lewis, M. (1997). *Implementing the lexical approach: Putting theory into practice*. Hove, England: Language Teaching Publications.
- Ministry of Education, Culture, Sports, Science and Technology (MEXT). (2009). Kotogakko gakushu shido yoryo kaisetsu gaikokugo hen-eigo hen. [Explanation of the senior high school curriculum guidelines. Foreign language and English version]. Retrieved from https:// www.mext.go.jp/component/a_menu/education/micro_ detail/_icsFiles/afieldfile/2010/01/29/1282000_9.pdf
- Mirzai, M., Gaskaree, B. L., Richter, K. G., & Doosty, M. (2020). Lexical bundles in the discussion sections of applied linguistics research articles: A cross-paradigm analysis. *The Asian ESP Journal*, 16(6.1), 190– 213. Retrieved from https://www.elejournals.com/ asian-esp-journal/volume-16-issue-6-1-december-2020
- Narita, M., Kobayashi, Y., & Abe, M. (2018). Recurrent Multiword Combinations in L1 and L2 Argumentative Essays.

Asian EFL Journal, 20(12.1), 250–276. Retrieved from https://www.asian-efl-journal.com/main-editions-new/volume-20-issue-12-1-december-2018

- Norvig, P., & Lakoff, G. (1987). Taking: A study in lexical network theory. In *Proceedings of the Thirteenth Annual Meeting of the Berkeley Linguistics Society, Berkeley Linguistics Society, Berkeley, CA*, 195-206.
- Stevenson, A. (Ed.). (2010). Oxford Dictionary of English (3rd ed.). Oxford, England: Oxford University Press.
- Tanaka, S. (2019). Imēji de wakaru tsukaeru eitango döshi-hen: döshi-hen [Images of English-words for Comprehension and Use: Verb Version]. Tokyo, Japan: ALC press.
- Tono, Y. (2015). *Hasshin ryoku wo tsukeru atarashii eigo goi shido* [New English vocabulary instruction to produce English]. Tokyo, Japan: Sanseido.

- Vázquez, A. M. (2018). The Use of MAKE and TAKE by Spanish and Italian Learners of English: Corpus Study. (Master's thesis, Stockholm University). Retrieved from http://www.diva-portal.org/smash/record. jsf?pid=diva2%3A1217670&dswid=9545
- Wang, Y. (2016). The idiom principle and L1 influence: A contrastive learner-corpus study of delexical verb + noun collocations. Amsterdam, Netherlands: John Benjamins.
- Wijitsopon, R. (2018). Key multi-word expressions in Thai learner English argumenta-EFLtive essays. Asian Journal, 23(6.1), 115-141. Retrieved from https://www.asian-efljournal.com/main-editions-new/2019-main-journal/ volume-23-issue-6-1-november-2019/

APPENDIX

Appendix A. List of senior high school English textbooks

English Communication I Textbooks	Market share
All Aboard! English Communication I. (2017). Tokyo Shoseki.	12.8 %
CROWN English Communication I New Edition. (2017). Sanseido.	8.0 %
VISTA English Communication I New Edition. (2017). Sanseido.	7.2 %
Revised COMET English Communication I. (2017). Suken Shuppan	5.7 %
Power On English Communication I. (2017). Tokyo Shoseki.	5.7 %
MY WAY English Communication I New Edition. (2017). Sanseido.	5.3 %

English Expression I Textbooks	Market share
Revised Vision Quest English Expression I Standard. (2016). Keirinkan.	14.2 %
Revised Vision Quest English Expression I Advanced. (2016). Keirinkan.	10.5 %
DUALSCOPE English Expression I. (2017). Suken Shuppan.	9.3 %
NEW FAVORITE English Expression I. (2017). Tokyo Shoseki.	6.8 %
CROWN English Expression I New Edition. (2017). Sanseido.	5.0 %
be English Expression I Standard. (2016). Iizuna Shoten.	4.9 %

Annendix B	. EVP	based	semantic	categories	and	collocates	of '	TAKE
принина р	• L V I	Uascu	Somannie	categories	anu	conocates	U1	IAIL

	-					
R	Semantic Category	Definition	Collocates (#)	Т	#	%
Е	take a picture/ photo(graph)	to photograph someone or something	PICTURE (38), photo (13), photograph (3), it (3)	4	57	16.2
E	PERFORM ACTION	used with some nouns to say that someone performs an action	bath (14), walk (12), look (10), sip (6), seat (3), step (3), breath (2), shower (2), lead (1), navigation (1), revenge (1), trip(1)	12	56	15.9
Е	take care of sb/sth	to look after someone or something	care	1	33	9.4
Е	TRAVEL	to travel somewhere by using a bus, train, car, etc.	train (7), taxi (6), bus (4), airplane (3), line (3), subway (1), kayak(1)	7	25	7.1
Е	GO WITH SOMEONE	to go somewhere with someone, often paying for them or being responsible for them	home (3), there (1), to (18), wherever (1), them (1)	5	24	6.8
Е	NEEDS TIME	If something takes a particular amount of time, you need that amount of time in order to be able to do it.	time (7), hour (4), long (4), minute (2), year (2), day (1)	6	20	5.7
Е	ACCEPT	to accept or have something	advice (6), order (4), job (1), money (1), part (3), call (1)	6	16	4.6
Е	take part	to be involved in an activity with other people	part	1	16	4.6

Appendix B. (Continued)

P	Semantic Category	Definition	Collocates (#)	т	#	0/_
- K	STUDY	te study e subject in order te de en even	$\frac{1}{1} \log_2 2\pi \left(0 \right) = \log_2 \left(2 \right) = \log_2 \left(1 \right)$	4	12	27
E	STUDY	to study a subject in order to do an exam	training (1)	4	13	3./
Е	take off sth	to remove something, especially clothes	off	1	11	3.1
0	[BUY] take that/ it		it (6), one (1), this (2)	3	9	2.6
Е	GET HOLD	to get hold of something and move it	arm (1), example (3), to (1), from (1), whichever (1), whatever (1)	6	8	2.3
Е	HEALTH	to swallow or use medicine	medicine (4), potion (1), it (2)	3	7	2.0
Е	take a break/rest, etc.	to stop working for a short period	rest (2), nap (3), break (1)	3	6	1.7
Е	take sb's place	to do something instead of someone else	place	1	5	1.4
Е	[REMOVE] take out sth	to remove something from somewhere	out	1	4	1.1
Е	take turns	When a number of people take turns, they do the same thing one after the other.	turn	1	4	1.1
Е	CARRY	to get and carry something with you when you go somewhere	umbrella (1), food (1), with (1)	3	3	0.9
Е	take an exam	to do an exam	test (1), quiz (1), examination (1)	1	3	0.9
Е	[REMOVE] take away	to remove something	away	3	3	0.9
	sth	8	5			
Е	take sb/sth seriously	to consider a person, subject or situation to be important or dangerous and worth your attention or respect	seriously	1	3	0.9
Е	WRITE	to write something	note (1), message (1)	2	2	0.6
Е	take it/things easy	to relax and not use too much energy	it (2)	1	2	0.6
Е	[RESPONSIBLE]	to start doing a job or being responsible	over	1	2	0.6
	take over (sth)	for something that another person did or had responsibility for before				
В	take for	to assume to be	for	1	2	0.6
0	It takes two to make a	-	two	1	2	0.6
	quarrel					
0	[ABSORB] take in	to absorb something into the body, for example by breathing or swallowing	in	1	2	0.6
Е	Take care!	INFORMAL used when saying goodbye to someone	care	1	1	0.3
Ε	WITHOUT PERMISSION	to remove something without permission	wallet	1	1	0.3
Е	take place	to happen	place	1	1	0.3
Е	take advantage of sth	to use something good in a situation to help you	advantage	1	1	0.3
Е	take sb/sth for granted	to not show that you are grateful for someone or something, and forget that you are lucky to have them	granted	1	1	0.3
Е	take care of sth/doing sth	to be responsible for dealing with something	care	1	1	0.3
Е	MEASURE	to measure something	temperature	1	1	0.3
Е	[RETURN] take back sth	to return something to the place you borrowed or bought it from	back	1	1	0.3
Е	[FLY] take off	If an aircraft takes off, it leaves the ground and begins to fly.	off	1	1	0.3
Е	take to sb/sth	to start to like someone or something	to	1	1	0.3
Е	take/accept/claim responsibility for sth	to say that you have done something or caused something to happen, especially something bad	responsibility	1	1	0.3
Е	take a risk	to do something although something bad might happen because of it	risk	1	1	0.3
В	take by	to grasp	by	1	1	0.3
Ο	[BE CAREFUL] take	-	care	1	1	0.3
	care to		TOTAL		352	100

R: reference, E: EVP, B: BBI, O: other references, T: number of types, #: frequency

R	Semantic Category	Definition	Collocates (#)	Т	#	%
E	PRODUCE	to produce or create something	android (4), bag (1), books (2), bracelet (2), BUILDING (3), CAKE (10), center (1), cheese (2), coat (1), computers (1), cookies (1), copies (1), crane (0.3), flower (0.3), object (0.3), desk (1), dinner (5), doghouse (1), ears (1), fastener (2), film (1), furniture (1), gears (1), GROUP (3), hero (3), iced tea (1), instant noodles (1), Japanese food (1), laws (2), lunch (1), match (1), mechanism (1), medicine (1.5), model airplane (1), MOVIE (5.5), muffins (2), <i>nigiri-zushi</i> (0.3), <i>chirashi-zushi</i> (0.3), <i>maki-zushi</i> (0.3), noodles (4), pairs (1), paper cups (1), patterns (1), pendant (1), pictograms (2), pizza (1), plan (2), potions (1), pottery (0.5), quilts (0.5), problems (1), products (4), rabbits (1), rice cakes (1), rope (0.5), rule (1), salad (1), sandwiches (1), schedule (1), sentences (2), series (1), shoes (2), society (1), stone (1), sweets (4), temporary housing (1), TV show (0.5), walls (1), <i>washoku</i> (1), watch (1), wine (1), report (1), it (5), they (1)	75	121	32.4
Ε	CAUSE	to cause something to happen or cause a particular state	active (1), angry (1.5), beautiful (2), better (9), bigger (1), captain (2), come true (1), comfortable (1), confused (1), crazy (1), cry (2), exhibit (1), feel (11), fun (1), happen (1), HAPPY (32), harder (2), interested (3), jealous (1), laugh (4), learn (1), look (1), lose (1), place (2), realize (1), recognize (3), rich (2), sad (5.5), smile (1), STRONG (3), study (2), think (8), understand (1), unique (3), wag (1)	35	114	30.5
Ε	PERFORM	to perform an action	announcements (1), breakthrough (1), call (1), change (3), contribution (1), debut (2), decision (1), excuses (2), jokes (1), landing (1), MISTAKE (10), observations (1), presentation (1), promise (2), recovery (1), reservation (5), runs (1), shot (1), speech (13), statement (1), stop (3), TRIP (2), visit (1), way (1)	24	57	15.2
Е	be made from/ (out) of sth	to be produced from a substance or material	from (9), of (13), with (3)	3	25	6.7
Е	make sb do sth	to force someone or something to do something	carry (3), clean (2), do (1), follow (1), sign (1), wait (1), work (1)	7	10	2.7
Е	make friends (with sb)	to begin to know and like someone	friends (7)	1	7	1.9
0	CONSIST OF	-	up (6)	1	6	1.6
Е	make sth into sth	to change something into something else	into (4)	1	4	1.1
Е	make yourself understood	to say something to someone in a way that they understand	understood (4)	1	4	1.1
Е	EARN	to earn	money (3)	1	3	0.8
Ε	make sure (that)	to take action so that you are certain that something happens, is true, etc	sure (2)	1	2	0.5
Е	ARRIVE	to manage to arrive at a place	it (2)	1	2	0.5

Appendix C. EVP based semantic categories and collocates of MAKE

R	Semantic	Definition	Collocates (#)	Т	#	%
	Category					
Е	make a (big) difference	to improve a situation (a lot)	difference (2)	1	2	0.5
Е	make fun of sb/sth	to make a joke about someone or something in an unkind way	fun (2)	1	2	0.5
Е	make the/sb's bed	to put sheets and covers on a bed or to make the sheets and covers on a bed neat	beds (2)	1	2	0.5
Е	SUITABLE	to have the necessary qualities to become something	contrast (1), winner (1)	1	2	0.5
0	All work and no play makes Jack a dull boy	-	boy (2)	1	2	0.5
0	It takes two to make a quarrel	-	quarrel (2)	1	2	0.5
Е	make up your mind or make your mind up	to make a decision	mind (1)	1	1	0.3
E	make sense	to have a meaning or reason that you can understand	sense (1)	1	1	0.3
Е	make use of sth	to use something that is available	use (1)	1	1	0.3
Е	to make matters worse	to make a situation more difficult, unpleasant, etc.	worse (1)	1	1	0.3
E	make up for sth	to reduce the bad effect of something, or make something bad become something good	up (1)	1	1	0.3
Е	make/take a stand	to publicly defend something or stop something from happening	stand (1)	1	1	0.3
0	Practice makes perfect	-	perfect (1)	1	1	0.3
			TOTAL		374	100.0

Appendix C. (Continued)

R: reference, E: EVP, B: BBI, O: other references, T: number of types, #: frequency. Words in italics are Japanese words