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Use of Multiword Verbs by Non-advanced EFL Learners:
Focusing on Common Verb + Particle Combinations

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Abstruct

This study addresses the problems students have with multiword verbs (MWV), a difficult aspect of learning for non-native speakers. There has been little research, however, undertaken into the use of MWVs by non-advanced learners. The purpose of the study is to explore how young EFL learners with Japanese as an L1 develop the use of MWVs, focusing on common MVWs in a learner corpus—the *JEFLL Corpus*. Results reveal some features of non-native learners' use of MWVs at different developmental stages compared with native speakers of English in the *British National Corpus.*

1. Problems of Multiword Verbs

In the late 1980s or even much earlier, researchers in the fields of linguistics, lexicography, SLA, ELT, or other domains related to language, language acquisition, and language teaching have paid attention and acknowledged the significance of linguistic behaviors in sequences such as collocations (Palmer, 1938; Sinclair, 1991), lexical phrases (Nattinger & DeCarrico, 1992), multiword items (Moon, 1997), phraseology (Cowie, 1998), lexical bundles (Biber, 1999), formulaic language (Wray, 2002), multiword units (Nation, 2008), phrasal verbs (Condon, 2008), and so forth.

In the past ten years, or the 2000s, in particular, more and more academic works on such linguistic phenomena in English language have been published extensively to date. Examples of book-length academic works include Wray (2002), Sinclair et al. (2004), Granger & Meunier (2008), Meunier & Granger (2008), Wray (2008), Barfield & Gyllstad (2009), if listed only a few.

Amongst a number of works on language in sequences, there are studies on grammatical collocations such as combinations of verbs and particles, or multiword verbs (MWV). They are "word combinations comprising a lexical verb and one or two particles" (Quirk et al., 1985: 1150). MWVs are said to be frequently used by native speakers of English and "prevalent in everyday language" (Quirk et al., 1985: 1150), however, their acquisition is a difficult aspect of language learning for students of English as a second or foreign language, and learners avoid using them, as

pointed out by researchers such as Cornell (1985), Dagut & Laufer (1985), Schmitt & McCarthy (1997), Biber et al. (1999), Liao & Fukuya (2004), Ishii (2006), and Yasuda (2010).

A majority of the previous SLA researches on MWV were concerned with advanced learners of English. For example, Yoshitomi (2006) dealt with the use of phrasal verbs by Japanese advanced learners of English through a story telling task, and she examined uses of phrasal verbs by advanced learners learning English as a second language or English as a foreign language.

Likewise, I deal with the use of MWVs by learners of English with Japanese as a mother tongue. The major focus of the present study, however, is beginning to lower-intermediate learners of English as a foreign language. I have investigated the use of common MWVs by Japanese high school students.

The purpose of the present study is to explore and describe how MWVs, verb + particle combinations, are used by non-advanced young learners with Japanese as an L1. The focus of the study is 40 common phrasal verbs and prepositional verbs in an EFL learner corpus. I examine the differences in the types and frequencies of MWVs between non-advanced learners at different developmental stages—beginners, post-beginners, and pre-intermediate learners.

The research questions of the study are: (1) Are there any similarities and differences in the frequency of 40 common multiword verbs in the writing of Japanese non-advanced learners at different developmental stages of learning? and (2) what causes the difference in the use of the MWVs between non-advanced young EFL learners and native speakers of English? The approach to the use of MWVs is rather unique in that I used a corpus-based method and a statistical measure *correspondence analysis* (CA), as Tono (2000) which also applied CA to the investigation into POS sequences by young Japanese learners of English.

2. Method

2.1. Multiword Verb

MWV is defined as a verb "followed by a morphologically invariable particle, which functions with the verb as a single grammatical unit" and "behaves to some extent either lexically or syntactically as a single verb" (Quirk, et al., 1985: 1150). It is categorized into three types, (a) phrasal verbs (PhV), (b) prepositional verbs (PrV), and (c) phrasal-prepositional verbs (Ph/Pr V); and further subcategorized into two types, continuous and non-continuous, according to elements such as lexical verbs (LV), adverbials (Adv.), prepositions (Prep.), direct objects (D.O.), and prepositional objects (P.O.). This is expressed in the formula: verb ± direct object ± adverb ± preposition (Quirk et al., 1985: 1161).

MWVs contain one or two particles. Particles are categorized, although sometimes problematic (Darwin & Gray, 1999: 69-71), into two word classes—prepositions and adverbial particles (or special adverbs). Examples of prepositional particles are *of*, *with*, *at*, *from*, *like*, and those of adverbial particles are *back*, *away*, *forward*. Nevertheless most of the latter were rarely used by

learners, especially non-native Japanese EFL learners (Uchida, 2007 in Tono).

Phrasal Verb (PhV)

• Continuous PhV: LV+Adv.

Jack fell down.

• Non-continous PhV: LV+Adv.+D.O. (or D.O.+Adv.)

They turn on the light. (or *They turn the light on*.)

Prepositional Verb (PrV)

• Continuous PrV: LV+Prep.+P.O.

Look at these picutres.

• Non-continuous PrV: LV+D.O.+Prep.+P.O.

May I remind you of our agreement?

Phrasal-Prepositional Verb (Ph/Pr V)

• Continuous Ph/PrV: LV+Adv.+Prep.+P.O.

He thinks he can get away with everything.

• Non-continuos Ph/PrV: LV+D.O.+Adv.+Prep.+P.O.

I'll let you in on a secret.

2.2. The Corpora Used

In order to answer the two research questions above, I have applied a frequency-based analysis and a correspondence analysis technique, using two corpora. The *JEFLL Corpus* was used together with the *British National Corpus* (BNC) as reference in the study. The JEFLL Corpus is one of the few corpora compiling interlanguage by young learners of English. It is a collection of free compositions written by more than 10,000 Japanese junior and senior high school students, an approximately 700,000-word corpus. For this investigation, I utilized a web-based search tool in the *Shogakukan Corpus Network* (SCN), which contains the data of the JEFLL Corpus.

In the task to collect writing samples in the JEFLL Corpus, the participants were asked to write their opinions, ideas, experiences, or stories about the given topics in 20 minutes during their class time without help of dictionaries, instructors or peers. Instead they are allowed to write Japanese words at a minimum in case they cannot express themselves enough in English due to a lack of necessary vocabulary.

There were six topics to be assigned—the school festival, breakfast, earthquake, a nightmare, *Urashima Taro* (a Japanese folk tale), and *Otoshidama* (gift money). Sample models were presented in the writing task sheets. Accordingly, in some cases, task-related factors can affect the quality of the writings in various aspects including their use of MWV. For further details of the JEFLL Corpus and the project, see Tono (2007a) or the Shogakukan Corpus Network WEB site (http://scn.jkn21.com/~jefll03/).

As a reference corpus to compare, the BNC was used, also accessible through in the SCN. In this study, I referred to the spoken subcorpus of 11,741,100 token words, roughly twice as large as those

of the JEFLL Corpus. For further details of a version of the BNC used in the current study, see *BNC Online* in the SCN (http://bnc.jkn21.com/).

2.3. Procedure and Data Analysis

Through an extraction, exemplification, and comparisons of MWVs, I have analyzed the use of 50 types of lexical verb + particle combinations by the learners at different developmental stages and compared with the BNC. For analysis, first, I listed the MWVs presented in Biber (1999), also referring to Gardners & Davies (2007) in order to determine what "common" MWVs are. Secondly, the 50 common MWVs were extracted from the BNC and the frequencies, absolute and relative (per million words), were counted to list the top 50 MWVs as Common MWVs (CMWV). Thirdly, the frequencies of CMWVs appearing in the JEFLL Corpus were counted to identify CMWV in the JEFLL Corpus by retrieving co-occurrences of lexical verb + particles (prepositions and adverbial particles).

For an identification of phrasal verbs and prepositional verbs, I extracted the sequences of the lexical verbs in base form and particles with part of speech tags as given below. Note that "LV" indicates lexical verb, "AVP" adverbial particle, "PRF" the preposition *of*, "PRP" any single prepositions other than *of,* and "*"(asterisk) any one or two words respectively. The extracted items and the frequencies per million words along with absolute frequencies were counted.

- Sequence of phrasal verb:
  (a) LV + AVP
  (b) LV + * + AVP
- Sequence of prepositional verb
  (c) LV + PRP (or PRF)
  (d) LV + * + PRP (or PRF)
- Sequence of phrasal-prepositional verb:
  (e) V + AVP + PRP (or PRF)
  (f) V + * + AVP + PRP (or PRF)

In addition, the uses of CMWVs were compared among learners, referring to the BNC. Developments of MWVs were investigated by the categories of phrasal verbs and prepositional verbs according to three stages of learning: beginners (Jr. 1 and 2), post-beginners (Jr. 3 and Sr. 1) and pre-intermediate learners (Sr. 2 and 3). The selected CMWVs in the JEFLL Corpus were compared with those in the spoken portion of BNC through a correspondence analysis to statistically account for the relationships between different developmental stages of non-advanced learners or sub-corpora and CMWVs at lexical level. First, the frequencies of the CMWVs were normalized to a rate per 100,000 words, then, a correspondence analysis was conducted to give statistic accounts by using *SPSS Statistics 17.0*.

3. Findings

3.1. An overview of common MWVs in the JEFLL Corpus

Through the frequency-based analysis of MWV as well as the correspondence, uses of common MWVs by the learners at different developmental stages were further analyzed and compared to those by native speakers in the BNC. First of all, 10 of 50 CMWVs in the BNC did not appear at all in the JEFLL Corpus. Therefore 40 CMWVs were analyzed. Table 1 shows the top 20 MWVs ranked by frequency per millions words in the JEFLL Corpus. It turned out that the top 3 MWVs, such as *get up* (3299.88), *take out* (3158.49), *wake up* (1758.70), belong to the category of phrasal verbs, and these items recurred extremely frequently as seen in the 3rd column of the table 1 presenting the frequencies of the items per million words, compared with other CMWVs. Focusing on types of MWVs, however, as many as 15 of the 20 MWVs were prepositional verbs, and merely 5 of them were phrasal verbs (i.e., *get up*, *take out*, *wake up*, *take in*, *give up*).

Table 1　Top 20 MWV in the JEFLL Corpus

Multiword Verb	Fr./mil.w.	Type
get up	3299.88	PhV
take (*) out	3158.49	PhV
wake (*) up	1758.70	PhV
listen to	978.70	PrV
say to	728.20	PrV
take (*) in	718.55	PhV
use (*) for	645.65	PrV
belong to	588.26	PrV
look for	570.23	PrV
give (*) up	465.26	PhV
do (*) for	437.79	PrV
look like	395.59	PrV
play with	386.20	PrV
think about	383.04	PrV
make (*) for	379.16	PrV
look at	328.36	PrV
put (*) on	322.01	PrV
give (*) to	271.37	PrV
talk about	266.63	PrV
think of	194.36	PrV

Focusing upon the lexical verbs appearing in learners' CMWVs listed (Table 1), 4 (i.e., *look*, *take*, *give, think*) of the 20 verbs appeared more than two times. For example, the verb *look*

appeared as in *look for*, *look like* and *look at*. Another investigation revealed that the lexical verbs *take* (922 occurrences) and *get* (771 occurrences) are most frequently used as in *take in*, *take out*, *get back*, *get on*, and *get up* (Table 2). It may indicate that learners can use the lexical verbs *take* and *get* as constituents of MWVs more than other lexical verbs although more precise investigations are necessary comparing with single word uses and MWV uses of the lexical verbs.

Table 2　Top 20 Lexical Verbs Appearing in MWVs

Lexical Verb in MWV	freq.	(Particle)
Take	922	(in, out)
Get	771	(back, on, up)
Wake	397	(up)
Look	347	(at, for, like)
Listen	214	(to)
Give	165	(to, up)
Use	165	(as, for)
Say	161	(to)
Make	152	(for, from, up)
belong	136	(to)
Think	134	(about, of)
Put	116	(in, on)
Talk	102	(about, to)
Do	99	(for)
Play	87	(with)
Return	57	(to)
Grow	41	(up)
Walk	39	(in)
Come	38	(from, on)
Carry	34	(out)

Focusing on the particles by looking at the 3rd column in the list above (Table 2), the 4 top ranking particles which constitute CMWVs are *to* (4 cases), *for* (4 cases), *up* (3 cases), *about* (2 cases) as in *listen to*, *say to*, *belong to*, *give to*, for example. The prepositions *in* and *of* most frequently occurred as the figure 1 demonstrates. Adverbial particles occurred less common in the JEFLL Corpus. The particles *up*, *out*, and *back* appeared more frequently than adverbial particles as prepositions. Note that the numbers above may include uses other than MWVs although the tendency in the uses of particles was revealed. In order to obtain more robust results, further studies on the use of particles may be necessary in the future by excluding uses other than MWVs,

particularly the prepositions used as elements of prepositional phrases headed by noun phrases (e.g., *I know the young man in the lift.*) Such complicated structures, however, seem to be another difficult aspect in the acquisition of English for non-advanced learners. They may tend to avoid using those challenging expressions for them.

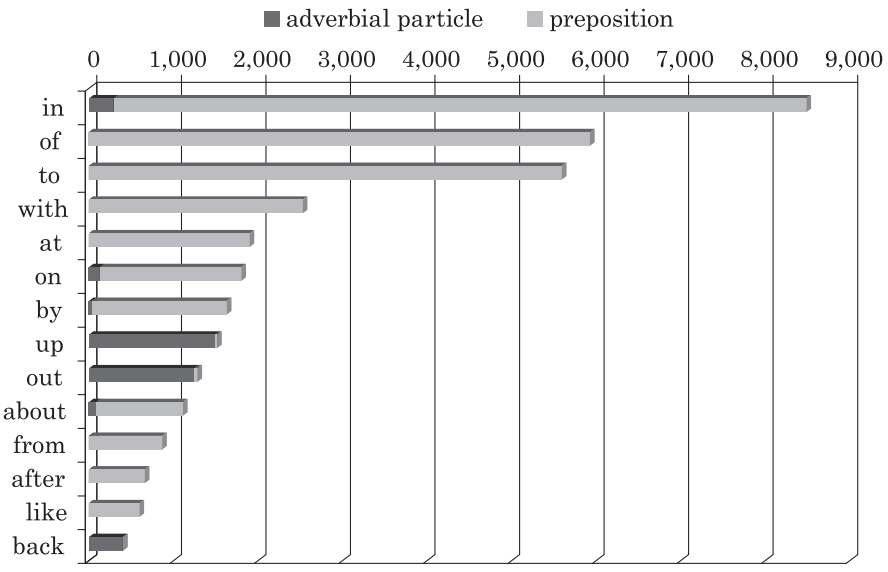

Figure 1 Distribution of particles

3.2. Development of MWV

3.2.1. Frequencies by types at different stages.

The more learners progress in English, the more they use both phrasal verbs and prepositional verbs although they do not necessarily use them as frequently as native speakers. The figure 2 shows that prepositional verbs were much more frequent than phrasal verbs, in both corpora, probably because phrasal verbs may follow “the idiom principle” (Sinclair 1991). It is said that the more fixed expressions are idiomatic, the less frequently they occur in corpora. Learners at all three stages produced more than twice as many prepositional verbs as they produced phrasal verbs.

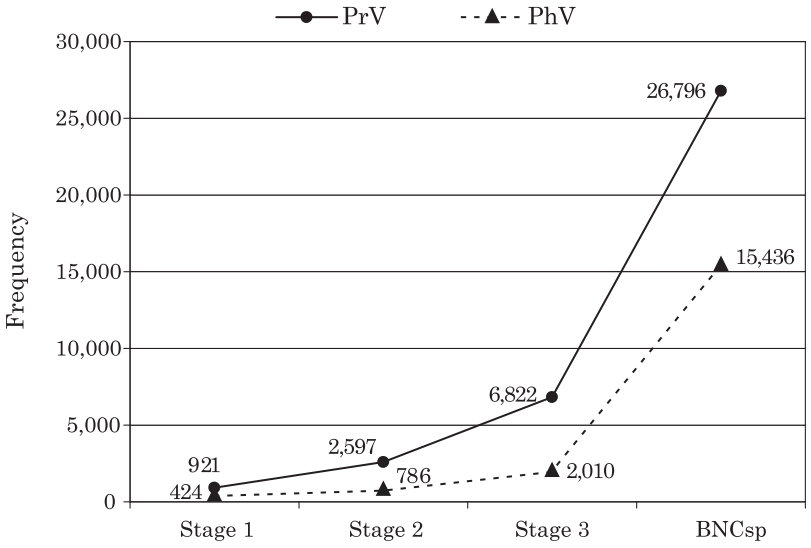

Figure 2 Frequency of PhV and PrV at different stages

It should be noted that the learners' use of PhVs accelerated at Stage 3 (6,822 occurrences). Learners at Stage 2 (786 occurrences) used PrVs nearly 3 times as frequently as those at Stage 1 (424 occurrences). The non-advanced learners at Stage 3 used PhVs around 5 times (2,010 occurrence) as frequently as those at Stage 1 (424 occurrences). This tendency was even more obvious with regard to PrVs. Learners at Stage 3 (6,822 occurrences) used PrVs more than 7 times as frequently as those at Stage 1 (921 occurrences).

3.2.2. Difference in the MWVs at lexical level at different stages.

In this section I report findings of an investigation into similarity and dissimilarity in the uses of CMWVs by non-advanced learners at different developmental stages. First, 5 examples of the shared CMWVs by learners at all three stages were *get up*, *take out*, *listen to*, *wake up*, and *say to*. These CMWVs appeared within the top 10 in the lists of CMWVs at all three stages although the frequencies were different in some cases.

In the meantime, the dissimilarity was characterized by the emergence of such CMWVs as *bring in*, *come on*, and *give up* at Stage 1, *belong to* and *take in* both at Stage 2 and 3, and then *think of* and *carry out* which occurred in the top 20 CMWVs list only at Stage 3. The emergence of *come on* and *give up* in the list of the top 20 in terms of Stage 1 implies characteristics of this stage as an imitation period because both items appeared in the task sheets which contained those two items as the models as in "Come on, everybody" (in *Nightmare*), "He didn't give up." (in the story of *Urashima Taro*)

It should be noted that, looking closely at the frequencies of the MWV items, all of the top 20 CMWVs at Stage 3 amounted to more than 100 in terms of frequency per million words. CMWVs

which occurred more than 100 times, however, were 9 items at Stage 1 and 16 items at Stage 2. This suggests the development of MWVs by stages.

Table 3 Top 20 MWVs by stage in the JEFLL Corpus

Stage 1		Stage 2		Stage 3	
MWV	Fr/mil.	MWV	Fr/mil.	MWV	Fr/mil.
get up	1232.90	*get up*	1469.87	*take (*) out*	1655.09
*take(*) out*	493.16	*take(*) out*	1010.24	*wake (*) up*	717.34
listen to	469.45	*wake (*) up*	794.78	*get up*	597.11
wake (*) up	246.58	*say to*	383.03	*take (*) in*	488.91
give (*) up	208.64	*listen to*	296.85	*belong to*	320.60
use (*) for	203.90	*look for*	263.33	*use (*) for*	288.54
say to	132.77	*belong to*	220.24	*say to*	212.40
look for	118.55	*take (*) in*	210.67	*put (*) on*	212.40
do (*) for	113.81	*play with*	162.79	*listen to*	212.40
look at	99.58	*look like*	153.21	*think about*	192.36
look like	90.10	*use (*) for*	153.21	*look for*	188.35
think about	85.35	*make (*) for*	153.21	*do (*) for*	180.34
get on	71.13	*give (*) up*	148.42	*make (*) for*	164.31
play with	71.13	*do (*) for*	143.64	*talk about*	152.28
give (*) to	61.64	*think about*	105.33	*give (*) to*	152.28
make (*) for	61.64	*look at*	100.54	*look like*	152.28
talk about	56.90	*talk to*	90.97	*play with*	152.28
put (*) on	52.16	*go on*	57.45	*think of*	132.25
come on	47.42	*talk about*	57.45	*carry (*) out*	132.25
bring (*) in	47.42	*give (*) to*	57.45	*look at*	128.24

3.3. Top 40 multiword verbs in BNC.

In this section, I present results of frequency-based analysis of MWV appearing per million words in the spoken portion of the BNC. Top 10 MWVs produced by native speakers in the BNC were *look at* (670.47), *go on* (439.65), *talk about* (349.29), *say to* (275.27), *come on* (263.09), *put in* (256.19), *give to* (186.10), *think of* (175.71), *put on* (174.77), and *talk to* (162.25).

Looking at more MWVs by category, 24 of the top 40 MWVs were prepositional verbs and 16 were phrasal verbs. Other examples of frequent prepositional verbs (a frequency of more than 100 per million words) were *think about* (151.09), *do for* (126.31), *come from* (124.43), *look like* (107.32), *look for* (107.14), *listen to* (105.44). In the meantime, relative frequencies of phrasal verbs ranked between the top 19 and 40 were rather low comparatively. The phrasal verb *get up* (83.81) in

the 19th place of MWVs and *sit down* (68.56) in the 21th, *take out* (62.77) in the 22th, for example, occurred below 100 per million words. As already seen, *get up* and *take out* most frequently appeared in the JEFLL Corpus. See Appendix A for the detailed list of the top 40 MWVs and their frequencies in the BNC in comparison with learners' data at different developmental stages in the JEFLL Corpus.

3.4. Comparisons between BNC and JEFLL Corpus

Native speakers of English in the BNC and EFL learners in the JEFLL Corpus shared many of the 40 common multiword verbs although the relative frequencies of them were different to a large extent in most cases. Examples of the shared CMWVs by native speakers and young EFL learners as well as underused or overused CMWVs were presented below. Some of the MWVs were overused by the learners (e.g., *belong to*, *get up*, *wake up*), others were underused by them (e.g., *come on*, *carry out*).

- Shared Phrasal Verbs: *go on*, *come on*, *put in*, *get on*, *get up*
- Shared Prepositional verbs: *look at*, *talk about*, *say to*, *give to*, *think of*, *put on*

See Appendix A for a list of common MWVs in both corpora in detail.

Lexical verbs in MWVs were also shared between the native speakers and the EFL learners, the verb "look" as in *look at*, l*ook like*, *look for*, the verb "go" as in *go on*, the verb "talk" as in *talk about* and *talk to*, for example. Nevertheless some of the lexical verbs were not shared (e.g., "carry" as in *carry out*).

3.5. Correspondence Analysis

3.5.1. Common multiword verbs and learners at three stages

Figure 3 shows the relationships between the stages and CMWVs. As displayed in the bi-plot in Figure 3, three stages were plotted apart from each other. In the case of the distance between each CMWV, some of the CMWVs were separated, and others were close to one another. The plots also show the distance between each stage and CMWVs. Some CMWVs were distant from the clusters of the stages, while others were close to one another.

In order to answer the first research question, that is to say, the differences among the three stages, take a look at the relations among each stage as well as the groups (three stages) and CMWV. Through the correspondence analysis, the relationships among the groups were found to be separated from each other. See Appendix B for the detailed statistics.

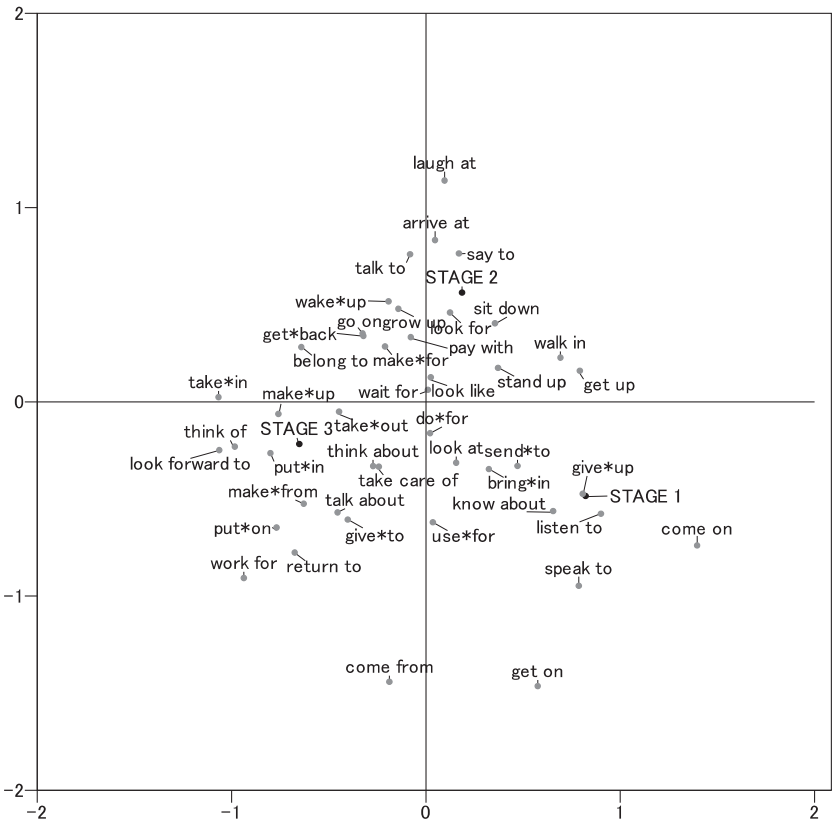

Figure 3　Correspondence Analysis (MWVs Non-advanced level)

As with the relationship between the stages and the CMWVs, first, Stage 1 and such PhVs had close relationships as *give up* and *come on* and such PrVs as *know about*, *speak to*, and *send to*. Second, Stage 2 and the PhVs *sit down* and *wake up*, as well as the PrVs *look for*, *say to*, and *arrive at* were closely related. Finally, the relationship between Stage 3 and the PhVs *put in*, *make up*, *take out* and the PrVs *think of*, *make from*, and *talk about* were close to one another. See Appendix B for the percentages of contributions and Appendix C for a correspondence table.

3.5.2. The BNC and the JEFLL Corpus

When BNC data was included in the analysis, we can observe another picture (Figure 4) as with the relationship between the subcorpora (BNC, stage 1, 2, and 3) and MWVs as well as the relationship between NNS and NS. One of the most striking results was the distance between the BNC and the groups of learners at all three stages. Comparing MWVs in the dimension 1 in figure 3 and those in figure 4, they are distinctive. Therefore the use of MWVs distinguish NNS from NS. Secondly, Stage 1 and 2 were plotted in the same quadrant, the bottom right box, and Stage 3 was plotted the upper right, while BNC lay far apart in the bottom left. This indicates that Stage 1 and

2 are rather closely related each other, but Stage 3 tends to be different from the other two stages, and the BNC is even more different (Figure 4). Taking BNC into account, the relationships between the groups and MWVs make a difference to some extent. The PhVs *sit down*, *put in*, and *take out* are separated from the 2nd or 3rd stages, and have moved close to the BNC. Other MWVs close to the BNC were *talk about*, *come from*, *look at*, *go on*, *come on*. Some of the features attested by the correspondence analysis were congruent with the results of frequency-based analysis (e.g., *give up* and *get up* at Stage 1, and *belong to* and *make from* at Stage 2), others were different (e.g., *come on*).

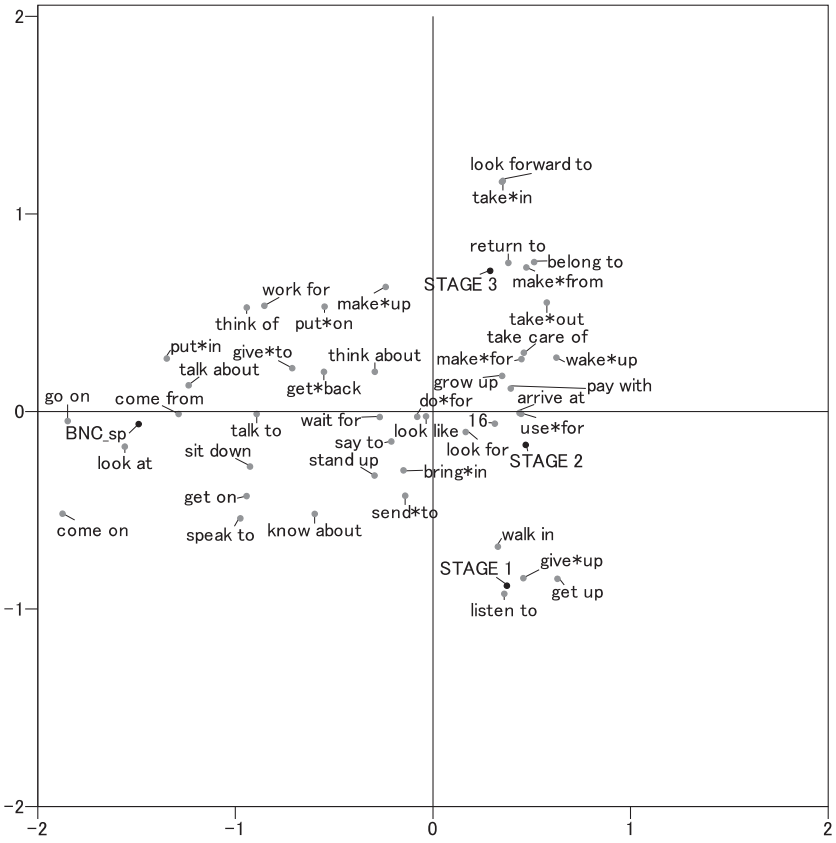

Figure 4　Correspondence Analysis (Comparisons with BNC)

In conclusion, it may be argued that there are developmental patterns of the uses of MWVs, namely, learners at Stage 1 use limited types of MWVs intensively, with 4 MWVs close to the group. At Stage 2 MWVs develop quantitatively and qualitatively but they use certain MWVs rather intensively, and then at Stage 3 uses of MWVs are accelerated and learners use a greater variety of MWVs regardless of the type of MWV, whether phrasal verbs or prepositional verbs.

3.6. Examples of learners' CMWVs in context

Below are some examples in the JEFLL Corpus. A rough qualitative analysis revealed some features of CMWV uses by non-advanced learners. First, some of the CMWVs most frequently emerged in a particular topic, *get up* in the sub-corpus of "*breakfast"*, *take out* in "*earthquake", and belong to* and *take part in* in "the *school festival"* (ex.1, 3, 4, 5). Second, the preposition *in* was often used with *take part* as in *take part in* (ex.6). Third, PhV and PrV in non-continuous form were rarely used by pre-intermediate learners or at Stage 3 (ex.7). Finally, pre-intermediate, Stage 3 and post-beginners, or Stage 2 learners produced longer sequences with MWVs in complex structures (ex. 2) or added pre-modifying adverbs (ex.8), while beginners used phrasal-prepositional verbs if they are familiar with them and confident enough in using the phrasal verbs preceding to prepositions as the PhV *get up* and the preposition *at* (ex. 1).

Ex. 1 *I always get up at 6.00.* (Breakfast, Jr.1)

Ex. 2 *When he woke up , a beautiful girl was standing by him.* (*Urashima*, Jr.3)

Ex. 3 *I will take out my computer.* (Earthquake, Jr.2)

Ex. 4 *I must take out all of my CDs and CD walkman with me.* (Earthquake, Sr.1)

Ex. 5 *I belong to an art club.* (Festival, Sr.2)

Ex. 6 *I took part in our school festival as a group of frea market.* (Festival, Sr.2) .

Ex. 7 *... my class made original story and put them on the wall*. (Festival, Sr.2)

Ex. 8 *I always think about enjoyable things to encoruge myself.* (Nightmare, Sr.3)

4. Discussion

The first research question of the study was whether or not there are any differences in the frequency of common multiword verbs in the writing by non-advanced learners at different developmental stages of learning. On one hand, non-advanced learners' repertoires of phrasal verbs, lexical verb + adverbial particle, are insufficient and they tend to frequently use very limited types of phrasal verbs such as *get up*, *take out*, and *wake up*. On the other, prepositional verbs, lexical verb + preposition, by the learners are more varied compared to phrasal verbs.

In addition, their repertoires of both lexical verbs, adverbial particles, and prepositions are limited due to lexical deficiencies. The more learners' repertoires of MWVs increase, the more MWVs they come to use. Common multiword verbs are simple combinations of a basic lexical verb (e.g., *talk*, *put*, *come*, *look*, *go*) and particles (e.g., *about*, *in*, *on*, *from*, *at*).

The second question was what similarities and differences exist between non-native young EFL learners and native speakers of English in the types of multiword verbs. MWV items and their frequencies by native speakers in the BNC and young learners in the JEFLL Corpus are divergent to a large extent in the frequency. Nevertheless, non-advanced learners use more and more MWVs as the stages of learning proceed in term of types and frequencies, especially at pre-intermediate level, 5th and 6th years of learning at school in a Japanese context.

This may imply that common MWVs consisting of basic lexical verbs must be instructed consciously and systematically at pre-intermediate levels at the latest in order that they can deepen lexical knowledge and process MWVs as chunks, phonetically, formally, and semantically, instead of analyzing and processing them word by word so that they can use words as constituents of multiword units and even expand the phrasal verbs by adding more words such as verb modifying adjectives as in the sequence "…always get up at …". In vocabulary teaching to post-beginners, how to encourage, reinforce, and enhance common multiword units, instead of avoiding, should be seriously considered along with the expansion of vocabulary as individual words.

Considering numerous limitations of the present research, foreseeable extensions of this research would be to include erroneous use of MWVs, semantic functions of MWVs, influences of tasks, modes, and learners' L1. Far more precise qualitative researches on development of MWVs will also be necessary in the future.

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Appendix A

List of Common MWVs by Types and the Frequency in the JEFLL Corpus and BNC

BNC spoken			Stage 1			Stage 2			Stage 3		
Item	TYPE	Fr/mil	Item	TYPE	Fr/m	Item	TYPE	Fr/mil	Item	TYPE	Fr/mil
look at	I	670	get up	II	1232	get up	II	1469	take * out	III	1655
go on	II	439	take * out	III	493	take * out	III	1010	wake * up	III	717
talk about	I	349	listen to	I	469	wake * up	III	794	get up	II	597
say to	I	275	wake * up	III	246	say to	I	383	take * in	III	488
come on	II	263	give * up	III	208	listen to	I	296	belong to	I	320
put * in	III	256	use * for	I	203	look for	I	263	use * for	I	288
give * to	I	186	say to	I	132	belong to	I	220	say to	I	212
think of	I	175	look for	I	118	take * in	III	210	put * on	I	212
put * on	I	174	do * for	I	113	play with	I	162	listen to	I	212
talk to	I	162	look at	I	99	look like	I	153	think about	I	192
think about	I	151	look like	I	90	use * for	I	153	look for	I	188
do * for	I	126	think about	I	85	make * for	I	153	do * for	I	180
get on	II	126	get on	II	71	give * up	III	148	make * for	I	164
come from	I	124	play with	I	71	do * for	I	143	talk about	I	152
look like	I	107	give * to	I	61	think about	I	105	give * to	I	152
look for	I	107	make * for	I	61	look at	I	100	look like	I	152
listen to	I	105	talk about	I	56	talk to	I	90	play with	I	152
speak to	I	84	put * on	I	52	go on	II	57	think of	I	132
get up	II	83	come on	II	47	talk about	I	57	carry * out	III	132
work for	I	69	bring * in	III	47	give * to	I	57	look at	I	128
sit down	II	68	belong to	I	47	put * on	I	57	put * in	III	108
take * out	III	62	speak to	I	42	wait for	I	52	give * up	III	108
take * in	III	62	know about	I	42	think of	I	47	feel like	I	96
know about	I	62	send * to	I	42	hold on	II	47	make * up	III	88
get * back	III	61	come from	I	33	put * in	III	43	happen to	I	76
happen to	I	60	wait for	I	33	get * back	III	43	go on	II	64
wait for	I	55	talk to	I	23	make * up	III	43	talk to	I	64
make * up	III	52	stand up	II	20	bring * in	III	43	work for	I	64
bring * in	III	44	go on	II	18	send * to	I	38	hold on	II	64
use * for	I	40	put * in	III	18	sit down	II	33	wait for	I	56
send * to	I	37	sit down	II	18	know about	I	28	get on	II	52
play with	I	35	take * in	III	18	stand up	II	28	come from	I	52
give * up	III	34	think of	I	14	come on	II	23	get * back	III	48
carry * out	III	33	work for	I	14	happen to	I	23	bring * in	III	48
wake * up	III	30	get * back	III	14	speak to	I	19	send * to	I	36
feel like	I	29	make * up	III	14	get on	II	14	know about	I	28
stand up	II	28	happen to	I	0	work for	I	9	speak to	I	24
hold on	II	28	carry * out	III	0	come from	I	4	sit down	II	20
make * for	I	27	feel like	I	0	carry * out	III	4	stand up	II	20
belong to	I	25	hold on	II	0	feel like	I	4	come on	II	8

*Type I (phrasal verb), Type II (prepositional verb, intransitive), Type III (prepositional verb, transitive)

Appendix B

Correspondence Analysis

Percentages of contributions: Among learners at different stages

Overview Row Points [a]

Stage	Mass	Score in Dimension		Inertia	Contribution				
					Of Point to Inertia of Dimension		Of Dimension to Inertia of point		
		1	2		1	2	1	2	Total
1	.238	.822	–.485	.066	.467	.296	.840	.160	1.000
2	.360	.186	.563	.026	.036	.604	.166	.834	1.000
3	.402	–.651	–.217	.062	.497	.101	.942	.058	1.000
T	1.000			.154	1.000	1.000			

Among learners at different stages

Overview Column Points [a]

MWV items	Mass	Score in Dimension		Inertia	Contribution				
					Of Point to Inertia of Dimension		Of Dimension to Inertia of point		
		1	2		1	2	1	2	T
work for	.005	–.937	–.907	.002	.012	.020	.660	.340	1
wait for	.007	.010	.062	.000	.000	.000	.048	.952	1
think of	.010	–.983	–.231	.003	.028	.003	.971	.029	1
think about	.020	–.272	–.331	.001	.004	.011	.552	.448	1
talk to	.009	–.082	.760	.001	.000	.028	.021	.979	1
talk about	.014	–.455	–.569	.002	.008	.024	.538	.462	1
speak to	.004	.786	–.947	.002	.008	.021	.557	.443	1
arrive at	.006	.047	.832	.001	.000	.024	.006	.994	1
say to	.038	.170	.764	.005	.003	.116	.083	.917	1
return to	.012	–.675	–.776	.003	.016	.040	.580	.420	1
pay with	.020	–.078	.333	.000	.000	.012	.091	.909	1
look like	.020	.025	.127	.000	.000	.002	.067	.933	1
look for	.029	.124	.460	.001	.001	.033	.117	.883	1
look at	.017	.156	–.313	.000	.001	.009	.310	.690	1
listen to	.050	.900	–.576	.017	.119	.089	.816	.184	1
laugh at	.004	.096	1.140	.001	.000	.026	.013	.987	1
know about	.005	.655	–.562	.001	.006	.009	.712	.288	1
use*for	.033	.035	–.620	.002	.000	.068	.006	.994	1
send*to	.006	.472	–.330	.001	.004	.003	.788	.212	1
put*on	.017	–.768	–.647	.005	.028	.037	.720	.280	1
make*from	.007	–.629	–.524	.001	.008	.010	.724	.276	1
make*for	.020	–.210	.285	.001	.003	.008	.498	.502	1
come from	.005	–.188	–1.441	.002	.000	.051	.030	.970	1
give*to	.014	–.402	–.606	.002	.007	.027	.445	.555	1
do*for	.023	.021	–.161	0	0	.003	.031	.969	1
belong to	.030	–.641	.282	.005	.036	.013	.904	.096	1
put*in	.009	–.800	–.264	.002	.016	.003	.944	.056	1
take*out	.163	–.447	–.051	.011	.095	.002	.993	.007	1
take*in	.037	–1.067	.024	.014	.123	.0	1.000	0	1
get*back	.005	–.326	.352	0	.002	.004	.609	.391	1
make*up	.007	–.759	–.062	.001	.013	0	.996	.004	1
bring*in	.007	.324	–.346	0	.002	.005	.614	.386	1
give*up	.024	.807	–.473	.006	.045	.028	.841	.159	1
wake*up	.091	–.192	.518	.006	.010	.129	.201	.799	1
go on	.007	–.322	.339	0	.002	.004	.621	.379	1
come on	.004	1.395	–.739	.003	.023	.012	.866	.134	1
get on	.007	.575	–1.463	.004	.007	.080	.220	.780	1
get up	.170	.792	.160	.037	.310	.023	.978	.022	1
sit down	.004	.355	.405	0	.001	.003	.584	.416	1
stand up	.004	.371	.175	0	.001	.001	.892	.108	1
walk in	.009	.692	.228	.002	.013	.003	.944	.056	1
grow up	.009	–.142	.479	0	.001	.011	.138	.862	1
look forward to	.012	–1.063	–.248	.005	.041	.004	.971	.029	1
take care of	.005	–.243	–.334	0	.001	.003	.491	.509	1
Total	1			.154	1	1			

[a] Symmetrical normalization

Percentage of contribution: Among the BNC and sub-corpus in the JEFLL Corpus

Overview Row Points[a]

	Mass	Score in Dimension			Inertia	Contribution						
						Of Point to Inertia of Dimension			Of Dimension to Inertia of point			
		1	2	3		1	2	3	1	2	3	T
S1	.190	.374	–.882	.504	.070	.047	.462	.301	.214	.676	.110	1
S2	.288	.469	–.169	–.565	.053	.112	.026	.574	.673	.050	.277	1
S3	.322	.290	.712	.245	.070	.048	.510	.121	.216	.741	.044	1
NS	.201	–1.489	–.064	–.059	.251	.792	.003	.004	.999	.001	0	1
T	1				.444	1	1	1				

[a] Symmetrical normalization

Overview Column Point[a]

Items	Mass	Score in Dimension			Inertia	Contribution						
						Of Point to Inertia of Dimension			Of Dimension to Inertia of point			
		1	2	3		1	2	3	1	2	3	T
work for	.007	–.85	.53	.51	.004	0	.0	.01	.75	.16	.07	1
wait for	.008	–.26	–.02	–.09	0	0	0	0	.96	0	.03	1
think of	.015	–.94	.52	.03	.009	.02	.01	0	.84	.15	0	1
think about	.022	–.29	.20	.25	.002	0	0	0	.67	.18	.14	1
talk to	.014	–.89	–.01	–.60	.007	.02	0	.03	.88	0	.11	1
talk about	.025	–1.27	.13	.13	.022	.06	0	0	.99	.00	0	1
speak to	.007	–.97	–.54	.43	0	.01	0	0	.81	.14	.04	1
arrive at	.006	.43	0	–.87	0	0	0	0	.46	0	.53	1
say to	.041	–.21	–.15	–.70	0	0	0	.13	.22	.06	.71	1
return to	.011	.38	.75	.95	.004	0	.01	.06	.20	.44	.35	1
pay with	.017	.39	.11	–.31	.002	0	0	.01	.81	.04	.14	1
look like	.021	–.03	–.02	–.12	0	0	0	0	.20	.05	.74	1
look for	.028	.16	–.10	–.45	.001	0	0	.03	.29	.06	.63	1
look at	.041	–1.59	–.17	–.09	.057	.17	0	0	.99	0	.00	1
listen to	.045	.36	–.92	.65	.019	.01	.11	.12	.17	.65	.16	1
laugh at	.003	.31	–.06	–1.17	.001	0	0	.02	.19	0	.79	1
know about	.007	–.59	–.51	.32	.002	0	0	0	.66	.28	.05	0
use*for	.028	.44	–.01	.77	.006	.01	0	.10	.54	0	.46	1
send*to	.006	–.14	–.42	.27	.001	0	0	0	.13	.71	.14	1
put*on	.020	–.54	.53	.44	.006	.01	.01	.02	.58	.30	.11	1
make * from	.006	.47	.72	.69	.002	0	.01	.01	.33	.45	.20	1
make* for	.017	.44	.26	–.25	.002	0	0	0	.77	.15	.07	1
come from	.009	–1.28	–.01	.56	.009	.02	0	.01	.94	0	.05	1
give*to	.019	–.71	.21	.34	.006	.01	0	.01	.89	.04	.06	1
do*for	.023	–.08	–.02	.14	.000	0	0	0	.51	.03	.45	1
belong to	.025	.51	.75	–.24	.009	.01	.04	0	.43	.53	.02	1
put*in	.018	–1.37	.26	–.04	.018	.05	0	0	.97	.02	0	1
take* out	.133	.57	.55	.15	.038	.07	.12	.02	.64	.33	.01	1
take*in	.032	.35	1.16	.05	.016	0	.13	0	.13	.86	0	1
get* back	.007	–.55	.20	–.34	.001	0	0	0	.84	.06	.09	1
make* up	.008	–.24	.63	.04	.001	0	.01	0	.20	.79	0	1
bring*in	.008	–.14	–.29	.29	.000	0	0	0	.23	.52	.24	1
give*up	.021	.45	–.84	.57	.008	0	.04	.04	.29	.57	.13	1
wake* up	.074	.62	.27	–.52	.021	.05	.01	.12	.76	.08	.15	1
go on	.024	–1.84	–.04	–.35	.046	.14	0	.01	.98	0	.01	1
come on	.014	–1.87	–.51	–.06	.029	.08	.01	0	.95	.04	0	1
get on	.011	–.94	–.42	.78	.007	.01	0	.04	.76	.08	.15	1
get up	.139	.63	–.84	–.12	.063	.09	.31	.01	.49	.50	0	1
sit down	.006	–.92	–.27	–.38	.003	0	0	0	.90	.04	.04	1
stand up	.004	–.29	–.32	–.19	0	0	0	0	.55	.37	.07	1
walk in	.008	.32	–.68	–.21	0	0	.01	0	.27	.68	.03	1
grow up	.008	.35	.18	–.47	0	0	0	.01	.59	.09	.31	1
look forward to	.011	.34	1.16	.35	0	0	.04	0	.13	.82	.03	1
take care of	.005	.46	.29	.45	0	0	0	0	.65	.15	.18	1
Total	1				.44	1	1	1				

Appendix C

Correspondence Analysis: Correspondence Table

Item	Developmental Data				Comparative Data				
	S1	S2	S3	Active Margin	S1	S2	S3	BNC spoken	Active Margin
work for	14	10	64	88	14	10	64	70	158
wait for	33	53	56	142	33	53	56	56	198
think of	14	48	132	194	14	48	132	176	370
think about	85	105	192	382	85	105	192	151	533
talk to	24	91	64	179	24	91	64	162	341
talk about	57	57	152	266	57	57	152	349	615
speak to	43	19	24	86	43	19	24	84	170
arrive at	19	67	40	126	19	67	40	11	137
say to	133	383	212	728	133	383	212	275	1003
return to	47	38	156	241	47	38	156	17	258
pay with	71	163	152	386	71	163	152	36	422
look like	90	153	152	395	90	153	152	107	502
look for	119	263	188	570	119	263	188	107	677
look at	100	101	128	329	100	101	128	670	999
listen to	469	297	212	978	469	297	212	105	1083
laugh at	9	43	20	72	9	43	20	10	82
know about	43	29	28	100	43	29	28	62	162
use*for	204	153	289	646	204	153	289	40	686
send*to	43	38	36	117	43	38	36	38	155
put*on	52	57	212	321	52	57	212	175	496
make*from	24	29	84	137	24	29	84	6	143
make*for	62	153	164	379	62	153	164	27	406
come from	33	5	52	90	33	5	52	124	214
give*to	62	57	152	271	62	57	152	186	457
do*for	114	144	180	438	114	144	180	126	564
belong to	47	220	321	588	47	220	321	25	613
put*in	19	43	108	170	19	43	108	256	426
take*out	493	1010	1655	3158	493	1010	1655	63	3221
take*in	19	211	489	719	19	211	489	62	781
get*back	14	43	48	105	14	43	48	61	166
make*up	14	43	88	145	14	43	88	52	197
bring*in	47	43	48	138	47	43	48	45	183
give*up	209	148	108	465	209	148	108	34	499
wake*up	247	795	717	1759	247	795	717	30	1789
go on	19	57	64	140	19	57	64	440	580
come on	47	24	8	79	47	24	8	263	342
get on	71	14	52	137	71	14	52	126	263
get up	1233	1470	597	3300	1233	1470	597	84	3384
sit down	19	34	20	73	19	34	20	69	142
stand up	20	29	20	69	20	29	20	29	98
walk in	62	81	36	179	62	81	36	23	202
grow up	28	81	72	181	28	81	72	20	201
look forward to	14	57	168	239	14	57	168	20	259
take care of	24	29	52	105	24	29	52	6	111
Active Margin	4610	6988	7812	19410	4610	6988	7812	4878	24288

Key words: multiword verb, phrasal verb, prepositional verb, JEFLL Corpus, non-native learner,