

**USE OF ENGLISH MULTI-WORD VERBS BY THAI UNIVERSITY  
LEARNERS IN DIFFERENT YEARS OF STUDY**



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### ABSTRACT

This study aimed at exploring the use of multi-word verbs in Thai university students of English in various dimensions. The purposes were i) to explore the use of English multi-word verbs by undergraduate students majoring in English, ii) to reveal the variations of use and the sources of the incorrect use, and iii) to investigate their perceived difficulties resulted from using English multi-word verbs. The participants were 108 university students including 52 first-year English majors and 56 third-year English majors who were studying at Naresuan University, Phisanulok, Thailand during the second semester of the year 2014. The study employed mixed-method research approaches in data collection and analysis. The quantitative instruments were a test of multi-word verbs and a sentence-scoring rubric; the qualitative instruments were two types of interviews including a retrospective interview and a semi-structured interview. The quantitative data reported that while the students in both groups averagely scored lower than 50% from the test, the third-year students significantly had more ability to use multi-word verbs than the first-year students in every dimension including providing the correct prepositions, giving the correct or appropriate meanings, and having more written sentences and a better quality of sentences when using the target prepositions with the provided verbs. While both groups of students used the given verbs without a preposition at the highest rates, the third-year students had more variations in using

different prepositions in place of the target prepositions. Of fourteen non-target prepositions found, five prepositions largely used were *to*, *with*, *in*, *on*, and *from*. The variations and the interview data were qualitatively analyzed for their sources of errors and the learners' perceived difficulties in using English multi-word verbs. The interlingual transfer was one of the most important sources of errors. The important evidence was that they tended to incorrectly replace *to* with the preposition *with* due to word-for-word translations of *กับ* (*kap*). In addition, important evidence including the avoidance to respond to the test and to provide a preposition indicated their lack of lexical and collocational knowledge. Meanwhile, ignorance of rule restrictions and approximations were also important sources of errors resulted from the intralingual transfer. Furthermore, the students from both groups directly and indirectly reported similar difficulties in using English multi-word verbs. These included lack of knowledge in multi-word verbs, failures to recognize multi-word verbs due to the verbs' special characteristics and the students' personal behaviors in vocabulary learning, lack of exposure to multi-word word verbs, lack of use of multi-word verbs in their real life, and lack of collocational awareness.



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## CHAPTER I

### INTRODUCTION

#### Background of the Study

With the rise of computational research technology in 1980s, evidence from corpus analysis has challenged the traditional views of language description which are usually based on human intuitions. With huge and systematic data of language use, corpora (the plural form of “corpus”) provide authentic, statistical, and objective evidence (Sinclair, 1991) which “leads one to suppose that human intuition about language is highly specific, and not at all a good guide to what actually happens when the same people actually use the language” (Sinclair, 1991, p. 2). Particularly, the discovery of lexical phrases is important corpus evidence which challenges the traditional view of language study which usually sees language systems or grammars as a milestone of language competence (Nattinger and DeCarrico, 1992). Instead of supporting the traditional views which see grammatical structures as language frames for individual words to fill in, corpus evidence shows that vocabulary is central to language patterns as words tend to occur with preferred syntactic sequences (Sinclair, 1991).

Hence, for some researchers, vocabulary (lexis) and grammars (syntax) are joint components and are formed as prefabricated units. “Lexical phrases are lexico-grammatical units,” Nattinger and DeCarrico (1992, p. 8) supported, “they are prefabricated lexical chunks that are readily accessible as completely or partially assembled units.” Lewis (1997, p. 3) consistently agreed, “Language consists not of traditional grammar or vocabulary but often of multi-word prefabricated chunks.” As Wray (2000, p. 465) elaborated, the true nature of words is far from being disjoint constituents as we have traditionally learned, but they are stored in memory as units and also retrieved as units. In contrary to the traditional beliefs that language is formed by discrete elements, there exist *formulaic sequences*, “which is, or appears to be, prefabricated: that is, stored and retrieved whole from memory at the time of use, rather than being subject to generation or analysis by the language grammar.”

Collocations are among formulaic sequences which are receiving a significant interest nowadays due to the rise of corpus research. The term “collocation” was first brought on the table of theoretical linguistics by Firth in 1957 to refer to a tendency that actual words occur with habitual company. According to Nation (2001), collocation is the phenomenon that a certain word is likely to appear with a specific set of words, and this group of words regularly co-occurs. Collocations can either appear adjacently just like chunks or phrases or be separated by other words. To be considered as collocations, there must be certain chances of co-occurrence of such combinations. As most researchers observed, the association of those words must be habitual. They are “items that occur physically together or have strong chances of being mentioned together” (Sinclair, 1991, p. 170) “with greater than random frequency” (Lewis, 1997, p. 44). Due to the potential to co-occur, collocations are predictable (Hill, 2000).

Collocational knowledge is a fundamental element of vocabulary knowledge and second language (Henceforth: L2) competence. Occasionally, the knowledge of disjoint vocabulary does not make up an effective communication. Students may know, for example, the words *hold* and *conversation*, but may not know the collocation *hold a conversation* (Hill, 2000). According to Nation (2001), being able to recognize collocations of a word and being able to produce them in speaking and writing are important indicators of vocabulary acquisition. At the same time, he maintained that L2 competence can be achieved through collocations since collocational knowledge accounts for all fluent and appropriate language use. Accordingly, an increased ability to use collocations in the target language accounts for the improvement of four major skills in the target language including speaking and writing fluency, listening comprehension, and reading speed (Brown, 1974 as cited in Li, 2005).

Exposures to English collocations are one of the most important gateways to native-like competence in English language (Howarth, 1998). As authentic spoken and written English texts usually consist of up to 70% of collocations (Hill, 2000), learners with more exposures to English collocations can enhance their English comprehension. One important reason is that collocational knowledge helps signal the discourse structure (Li and Schmitt, 2009). With a number of collocations stored in the long-term memory, listeners and readers can expect what other words will appear after a word occurs. Especially, L2 processing is faster with collocations or multi-word units than



word-by-word processing (Hill, 2000; Wray, 2000) as “lexical phrases in language reflect the way the mind tends to ‘chunk’ language in order to make it easier to process” (Schmitt, 2000, p. 78). Instead of restructuring disjoint language elements every time they want to communicate, these collocations are “pre-packaged building blocks” (Carter and McCarthy, 1988, p. 75) which are quickly retrievable for English comprehension and production.

In spite of being crucial indicators of L2 competence, collocations are language features which English as a foreign language (Henceforth: EFL) learners are incompetent of, and teaching and learning of collocations are the areas which consist of gaps to be filled.

EFL learners’ collocational knowledge typically lags behind when compared with the knowledge of individual words (Bahn and Eldaw, 1993). Among various patterns of collocations, collocational research reveals that EFL learners seem to have a lot of problems with verb-related collocations, especially verb + noun and verb + preposition collocations (Bhumadhana, 2010; Chen, 2002; Hama, 2010; Hong, Rahim, Hua and Salehuddin, 2011; Li, 2005; Liu, 1999; Miyakoshi, 2009; Nesselhauf, 2003; Phoocharoensil, 2011).

With no exception, despite learning English for more than twelve years, Thai EFL learners regardless of how proficient they are remarkably lack collocational knowledge and are deficient in using them (Boonyasaquan, 2006; Bhumadhana, 2010; Monkolchai, 2008; Phoocharoensil, 2011). In consistent to research studies in other EFL contexts, verb collocations in English cause a lot of problems in Thai learners. As frequently revealed, verb + noun and verb + preposition collocations are the most problematic features for Thai university students (Bhumadhana, 2010; Phoocharoensil, 2011; Phoocharoensil, 2013).

Since verb collocations are commonly the most difficult features for Thai EFL learners and EFL learners in other countries, some researchers (Bhumadhana, 2010; Hong et al., 2011; and Miyakoshi, 2009) further investigated different sets of verbs and the sources behind their collocational errors. The results overall reported that approximations (Bhumadhana, 2010; Hong, et al., 2011) and ignorance of rule restrictions (Hong, et al., 2011) were important sources of errors in verb collocations.

Interestingly, Thai students in Bhumadhana's study tended to avoid providing full responses in a collocational test.

Despite an interest, pioneer research on EFL learners' use of verb collocations has crucial limitations in two important areas.

One limitation is that there is little research conducted to compare the ability to use verb collocations of students in different levels. Apparently, except for Miyakoshi's (2009) study that consisted of both graduate and undergraduate students, most studies lacked diversity in education levels, and if diversity existed, it was not so much different. For example, Bhumadhana's (2010) subjects were university students in the third-year and the second-year levels, whose language ability might not be significantly different. Hong et al.'s (2011) used a non-native corpus which contained a hundred-thousand words written or spoken by EFL learners from different backgrounds. However, their corpus use provided a holistic report instead of a comparative report.

The other limitation is that although verb collocations have been acknowledged to be one of the most important weaknesses of EFL learners, most studies emphasized on investigating verb + noun collocations but overlooked verb + preposition collocations, which have been also reported to significantly cause learners' difficulties. Many studies focused on any verb + noun collocations found in learners' written products without specifying the target sets of verbs. For example, Hong et al. (2011) studied verb + noun collocations which appeared anywhere in 130 essays written by Malaysian English learners. Laufer and Waldman (2010) focused on the use of any English verb + noun collocations found in a 300,000-word corpus of argumentative and descriptive essays written by learners using Hebrew as the mother tongue.

However, if specified by researchers, only limited sets of verb + noun collocations have been studied. Bahns and Eldaw (1993), for instance, tested German post-secondary learners on fifteen English verb-noun collocations. Miyakoshi (2009) examined Japanese learners' use of some light verbs including *be/become*, *do*, *have*, *take*, *get*, *give*, *receive*, and *make*. Bhumadhana (2010) focused on 18 verb + noun collocations in academic English used in Thai learners' writing. Khittikote (2011) assessed Thai university students' use of fifteen verb + noun collocations for business purposes. Meanwhile, even though Ebrahimi-Bazzaz, Samad and Ismail, (2014) told



that they studied a set of verb + noun collocations, they neither informed the criteria for selecting the collocations nor informed the readers what the collocations were.

As the above limitations suggested, although collocations have been an increasingly important area in language studies, research on verb + preposition collocations which have been regarded as one of the most problematic features is limited in how the data were collected. There is a need for further research to involve a sufficient range of participants, a varied choice of verb + preposition collocations, and a triangulation of data. Besides, to provide a depth for collocational research, non-native speakers' use of those verb + preposition collocations in written sentences should be investigated, and their perceived difficulties in using them should be revealed. In an attempt to expand the horizon of research on verb collocations, the current study aims at investigating Thai EFL university students' ability to use verb + preposition collocations, their variations of use, as well as their perceived difficulties. However, since the characteristics of collocations are differently conceived across different researchers (See Chapter 2), to avoid this theoretical inconsistency, the current study investigated and analyzed "verb + preposition collocations" using the classifications and definitions of "multi-word verbs" proposed by Biber, Conrad and Leech (2002) and Cowan (2010).

There are four research questions as follows.

1. To what extent are English majors in two undergraduate levels (first-year and third-year students) able to use English multi-word verbs?

- 1.1 To what extent do first-year students majoring in English score from the test of multi-word verbs?

- 1.2 To what extent do third-year students majoring in English score from the test of multi-word verbs?

- 1.3 What are the differences between the scores of the first-year students and those of the third-year students, majoring in English?

2. How do these learners use English multi-word verbs in their written sentences?

- 2.1 To what extent do they use the given verbs with the target prepositions in their written sentences?



2.2 If the English majors use the given verbs with the target prepositions, to what extent do they score from their written sentences?

3. What are the sources of errors in their use of English multi-word verbs?

3.1 What are students' variations of prepositions used with the target verbs?

3.2 Are there any variations of verb + preposition collocations influenced by the interlingual transfer?

3.3 Are there any variations of verb + preposition collocations influenced by the intralingual transfer?

4. What are the difficulties to use multi-word verbs perceived by the first-year students and the third-year students, majoring in English?

### **The Scope of the Study**

The current study is survey research which employed a mixed-method research design by combining quantitative and qualitative data collection.

The participants of the study consisted of two groups of Thai university students majoring in English. They were 52 first-year English majors and 56 third-year English majors who were studying at Naresuan University during the second half of the academic year 2014. The students were tested for their ability to use English multi-word verbs which were obtained from Coxhead's (2000) Academic Word List. The test scores from the sentence completion part were used to measure their ability to use English multi-word verbs and were analyzed for the variations of use and sources of errors, whereas their responses to the sentence building part were used to analyze how they actually used the verbs in their written sentences. After the test session, three participants from each group were asked to volunteer to be interviewed to reveal their perceived difficulties in using English multi-word verbs. In the end, the results from the test were analyzed and compared across different verbs and groups. Figure 1 displays the conceptual framework for the current study.

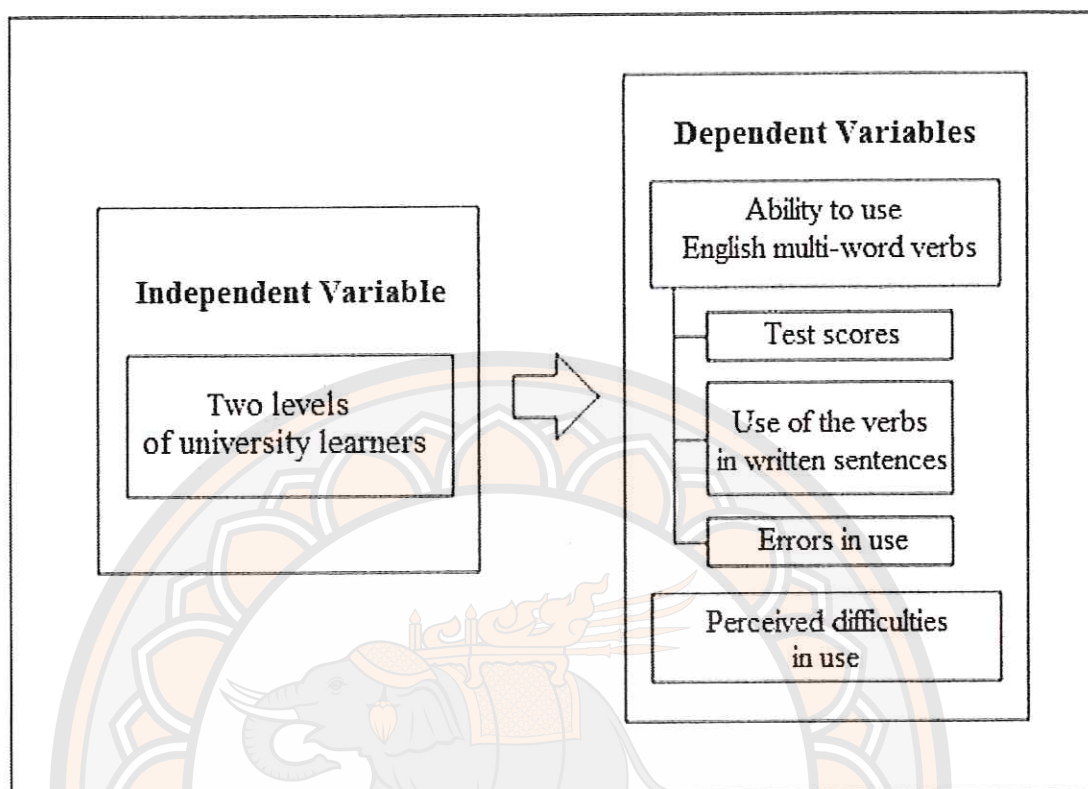


Figure 1 The conceptual framework

### Definitions of Terms

The terms used in this study are operationally defined as follows.

**Multi-word verbs** refer to verb + preposition collocations of which the verb appears in Coxhead's Academic Word List. Phrasal verbs and prepositional verbs were two types of multi-word verbs which the study covered.

**The ability to use multi-word verbs** refers to the extent to which the students can score from the test of multi-word verbs, the extent to which they use the multi-word verbs in their written sentences, and the scores they obtained from their sentences.

**Thai university learners** refer to the first-year English majors and the third-year English majors in the Bachelor's degree level, studying at Naresuan University during the second semester of the academic year 2014.

**Errors in multi-word verbs** refer to students' deviant use of multi-word verbs in the sentence completion part (focusing on the deviant use of prepositions), when



compared against native speakers' use of the same items, as found in a collocational dictionary and native speakers' corpora.

**Sources of errors in multi-word verbs** refer to students' errors from the target multi-word verb use, which were analyzed based on Hong et al.'s (2011) classifications of sources of collocational errors. These were the interlingual transfer and the intralingual transfer.

**Different years of study** were measured by students' years of study in the same curriculum of the same university. In the present study, they were the first-year students and the third-year students.

### **Significance of the Study**

The current study's results contribute to four groups of educational stakeholders as follows.

1. The field of English collocational study can benefit from this research since it provided an overview of Thai EFL university learners' different paces of their ability to use verb + preposition collocations and multi-word verbs. In particular, not only did the discoveries cover important various issues related to the learners' use of this type of verbs, but also they were triangulated by mix-method research approaches.

2. Instructional material developers can benefit from the list of multi-word verbs in academic English in their material design by adding these verbs in text books, as well as introducing learners the grammatical patterns of those words. Especially, the multi-word verbs which were classified by their levels of difficulty would guide them to sequence their lessons, from the easier ones to the more complex ones.

3. EFL teachers can integrate the current research results in their syllabus design by introducing the multi-word verbs, both the correct use and incorrect use to their learners. Additionally, as an important synthesis of this study, the multi-word verbs which were classified by their levels of difficulty would guide them to sequence their instructions, from the easier ones to the more complex ones.

4. Through classroom learning, EFL learners are the final recipients of knowledge from the current research results. Based on the discoveries on the sources of errors and the difficulties in learning and using English multi-word verbs, the EFL teachers, knowing Thai learners' weaknesses, would guide their learners to be aware of their weaknesses in order to help them use the multi-word verbs effectively.



## CHAPTER II

### LITERATURE REVIEW

To investigate Thai EFL university students' use of English multi-word verbs, the issues related to the current study's purposes are reviewed in this chapter as follows.

#### **Theoretical Issues on Collocations**

1. Definitions and characteristics of collocations
2. Types of collocations
3. Importance of collocations

#### **Multi-word Verbs**

1. Phrasal verbs
2. Prepositional verbs
  - 2.1 Testing prepositional verbs
3. Phrasal prepositional verbs

#### **Language Errors**

1. Error analysis
2. Collocational errors
  - 2.1 Sources of collocational errors

#### **Research Literature**

1. Use of collocations compared between native speakers vs. non-native speakers
2. Use of collocations compared by types of collocations
3. Sources of collocational errors
4. Development and acquisition of collocational knowledge
5. Use of multi-word verbs
6. Difficulties in using multi-word verbs

#### **Review of Research Instruments**



## Theoretical Issues on Collocations

Corpus-linguistics has brought new insights into the field of second language acquisition. Based on a huge coverage of authentic language data, the traditional view of language acquisition is challenged by the view that vocabulary is central to language patterns (Nattinger and DeCarrico, 1992). Rather than believing that various grammatical patterns are acquired first for vocabulary to fill in, Sinclair (1991) contended that words tend to occur with preferred sequences. His observation is supported by Lewis' (1997, p. 3) claim that "language consists not of traditional grammar or vocabulary but often of multi-word prefabricated chunks." Wray (2002) bolstered that children tend to memorize the whole phrases in long-term memory first, then use these memorized phrases later for grammatical analysis.

Corpus linguistics uncovered the existence of language chunks and chunking. "Chunks" were first coined by George Miller in 1956 as "permanent sets of associative connections in long term memory" (quoted by Ellis, 1997, p. 124). Newell (1990, p. 7) defined a chunk as "a unit of memory organization, formed by bringing together a set of already formed chunks in memory and welding them together into a larger unit." Consistently, as Nattinger and DeCarrico (1992, pp. 7-8) attributed, lexical chunks (or lexical phrases) are "prefabricated" and "readily accessible as completely or partially assembled units" in long term memory. Chunks are the results of chunking, which can refer to either the process or the ability to organize units in memory. Newell elaborated, "Chunking implies the ability to build up such structures recursively, thus leading to a hierarchical organization of memory." Nation (2001, p. 317) describes chunking as a meaningful process "when language users segment language for reception or production or to hold it in memory." The results of groupings are called *chunks* in varied sizes depending on the level of proficiency of a language user, and "at one level they are realized as collocations."

### 1. Definitions and characteristics of collocations

Being considered as a lexical chunk, collocations have been studied and discussed by several linguists as one of language features essential to L2 acquisition. The term "collocation" was first coined by Firth (1957) to refer to a tendency that actual words occur with habitual company. Similar to language chunks, a collocation is a "closely structured group whose parts frequently or uniquely occur together" (Nation,

2001, p. 324) and “have strong chances of being mentioned together” (Sinclair, 1991, p. 170). Due to the likeliness to physically appear together more than random frequency (Lewis, 1997), collocations are predictable (Hill, 2000) and should be learned as a whole (Palmer, 1933).

Collocations are different from common lexical chunks in terms of adjacency. While chunks’ constituents are adjacent, words in a collocation can be separated by other word items (Durrant, 2009). As Durrant exemplified (2009, p. 158), the words *powerful* and *argument* are a collocation. They can appear either adjacently as in *he made a powerful argument* or separately as in *he made a powerful, but ultimately unconvincing, argument*.

“Collocations co-occur, but not all words which co-occur are collocations” (Lewis, 1997, p. 44). In fact, word-combinations have been categorized by several researchers, and collocations are one of those categories. According to Taeko (2005), semantic opacity and collocational restriction are two common criteria used for the classification of word-combinations. Semantic opacity refers to the extent to which the meanings can be retrieved from the combinations’ constituents, while collocational restriction refers to the extent to which the combinations’ constituents can be substituted by other near-synonyms. These two criteria are named differently by various researchers but still refer to the same qualities as displayed in Table 1 (See Taeko, 2005, p. 24).

**Table 1 Various names for two criteria which distinguish collocations**

Names of criteria	Researchers (as cited in Teako, 2005)
(a) Semantic opacity	Fernando (1996), Cowie and Howarth (1996), Carter (1987), Korosadowicz-Struzaynska (1980), Cowan (1989), Gramley and Pätzold (1992)
	Benson, et al. (1986)
	Nattinger and DeCarrico (1992)
	Aisenstadt (1979)
	Wallace (1979)



Table 1 (cont.)

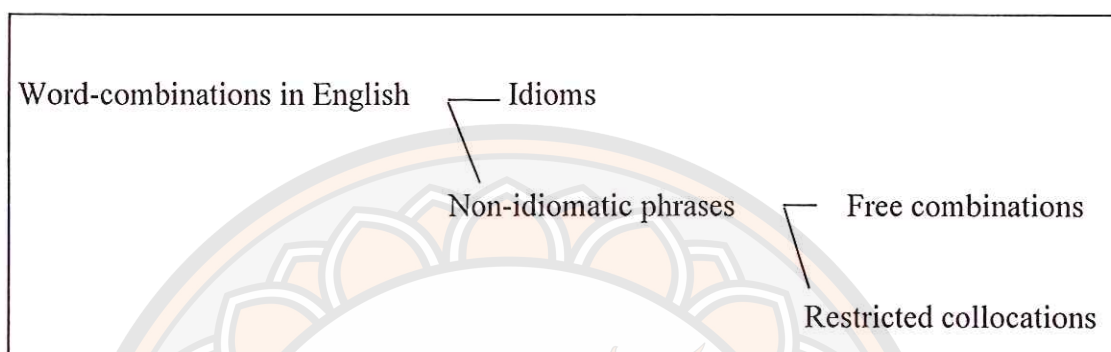
Names of criteria	Researchers (as cited in Taeko, 2005)
Collocational restriction	Carter (1987)
fixity	Fernando (1996)
variance	Cowie and Howarth (1996)
Commutability restrictions	Aisenstadt (1979)
Combinational flexibility	Nattinger and DeCarrico (1992)
(b) Impossibility of passivization	Korosadowicz-Struzaynska (1980)
Cohesiveness or range	Benson, et al. (1986), Gramley and Pätzold (1992)
Lexical substitution	Cowan (1989)

Source: Taeko, 2005, p. 24

For over three decades, the two criteria have long been employed to differentiate lexical phrases. Aisenstadt (1979, 1981 as cited in Taeko, 2005) is the first researcher who relied on the criteria but in different terms, *commutability restrictions* and *transparency*, for the classification of English word-combinations. This model depicts that a collocation is a non-idiomatic phrase that is “a type of word combination consisting of two or more words, unidiomatic in meaning, following certain structural patterns, restricted in commutability not only by semantics, but also by usage” (Aisenstadt, 1981, p. 54 as quoted in Taeko, 2005, p. 10). Thus, for Aisenstadt, unlike free combinations, collocations are somewhat restricted since their constituents cannot be not always replaced by other synonyms. Unlike idioms, they are transparent as the meaning can be predicted by the meanings of individual elements. For example, the phrase *face the music*, which means nothing related to *music* but refers to “to accept the unpleasant consequences of one's actions” (<http://www.thefreedictionary.com/>), is an idiom. Whereas, the combinations with *carry* which can be used with any portable objects such as *carry a bag/table/book* are free combinations since their original meanings are still being retrievable. However, in another sense when *carry* means *to*



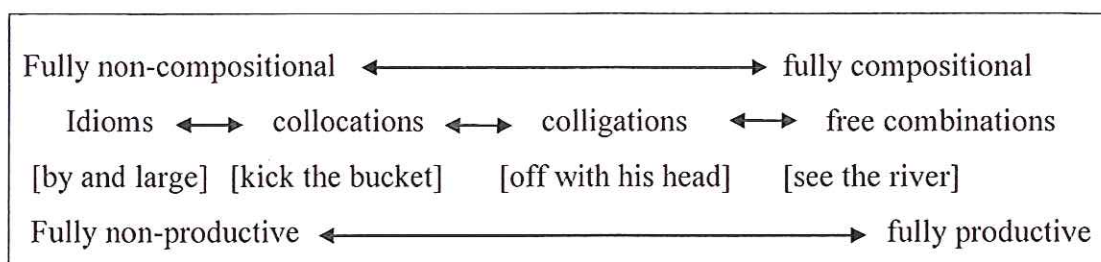
*convince* or *to win the argument* such as in *carry conviction*, it is a restricted collocation since it limits synonym substitutions, but still carries the original meanings of its components. Figure 2 displays how collocations are conceived by Aisenstadt (1979, 1980 as cited in Taeko, 2005).



**Figure 2 Categorization of word-combinations in English proposed by Aisenstadt**

**Source:** Aisenstadt, 1979, 1980 as cited in Taeko, 2005, p. 10

In 1981, Wood (as cited in Nattinger and DeCarrico, 1992, pp. 177-178) proposed a model of word-combinations which consists of four categories. In this model, idioms and free combinations are at the opposite ends of the continuum, while collocations and colligations are in between (see Figure 3). Compositionality and productivity are two criteria employed to distinguish these combinations. Compositionality is a semantic criterion which measures the extent to which “the meaning of the collocation is predictable from the individual meanings of the word that compose it” (Nattinger and DeCarrico, 1992, p. 177). Productivity, on the other hand, is a syntactic criterion which measures the extent to which the form of the combination is “structurally unique.” Based on these descriptions, compositionality is similar to semantic opacity, while productivity is not quite like collocational restriction due to the focus on the uniqueness of patterns, rather than on synonym substitutions.



**Figure 3 Wood's (1981) continuum of word-combinations**

**Source:** Wood, 1981 as cited in Nattinger and DeCarrico, 1992, pp. 177-178

As demonstrated in Figure 3, idioms are fully non-compositional and non-productive combinations since the meanings of their parts do not predict the meaning of the whole, and the structure is usually so frozen and unique that it cannot be reproduced. For example, we cannot rely on word-for-word translations to understand the idiom *by and large* since its meaning is non-compositional, different from their constituents. In fact, it can be substituted by the whole phrase *in general* or *on the whole*. In addition, its pattern (particle + *and* + adjective) is not productive as it cannot be repeated to form other expressions. Since idioms are completely frozen phrases, there are relatively few in number.

Conversely, at the other end of the continuum, free combinations are fully compositional and fully productive. While the meaning is fully predictable from their constituents' meanings, their patterns are not restricted. For example, the meaning of *see the river* is straightforward, and the pattern (verb + NP) is not unique as it can be used to generate an unlimited number of phrases.

Collocations and colligations are in the middle of the continuum. Their meanings are more compositional, and their patterns are more productive than those of idioms, but still less compositional and less productive than free combinations. Collocations' meaning is partly predictable. As Nattinger and DeCarrico (1992, p. 178) exemplified, the phrase *kick the bucket* which generally means *to die* is in this case. The meaning is neither compositional nor non-compositional since *kick* can mean *die* when used with some prepositions such as *kick off* and *kick out*. Meanwhile, the pattern of this phrase (verb + NP) is productive since the elements of the phrase can be changed just



like other free combinations to make new phrases. Colligations, on the other hand, have the meaning that is fully predictable from their parts, but the patterns are not fully productive. For example, *off with his head* can be straightforwardly translated, but the pattern (Directional particle + *with* + NP) do not fully allow variations of lexis. Only limited expressions appear in this pattern such as *down with the king* and *away with all X*.

Apart from Wood's continuum model proposed in 1981, Benson, Benson and Ilson (1986a) grouped word-combinations into five major categories which are compounds, idioms, transitional collocations, collocations and free combinations. Compared with Wood's continuum, their classification additionally includes compounds and transitional collocations, but excludes colligations. *Compounds* are frozen phrases with no variations. Compound nouns which represent specific concepts such as *aptitude test* and *floppy disk* are ones of this type. Their parts must adhere and are similar to one-word vocabulary. Meanwhile, *transitional collocations* are less frozen and more variable than idioms, but they are more frozen and less variable than collocations. Their meanings are partly predictable from some of their components. Examples include *foot the bill* and *to be in the tight spot*.

*Collocations* are distinct from idioms and free-combinations. Unlike idioms, "collocations are loosely fixed, arbitrary recurrent word combinations, and the meaning of the whole do reflect the meaning of the parts. *Pure chance, to commit murder, close attention, and keen competition* share the features of this category" (Benson, et al., 1986a, p. 23). Unlike free combinations, collocations' constituents are not freely substituted, while the original meanings are still retrievable. For example, the verb *commit* does not randomly collocate with any nouns, but it usually co-occurs with some crimes or sins such as *commit murder/suicide/rape/adultery*.

## 2. Types of collocations

Unlike Aisenstadt (1979, 1980 as cited in Taeko, 2005) who viewed collocations as a set of language features separate from idioms and free combinations, Howarth (1998) seems to recognize every type of word-combinations as collocations by using the same criteria.

Howarth (1998) categorized collocations into four groups and introduced another continuum whereby free combinations and pure idioms are at opposite ends, and restricted collocations and figurative idioms are in the middle. Free combinations



(also, open or free collocations) are different from restricted collocations as they are freely substitutable, while one component of restricted collocations has a limited number of collocates. Figurative idioms are distinct from pure idioms in how their meanings are interpreted. While figurative idioms still have rooms for literal interpretation from their elements and contain some metaphorical meanings, meanings of pure idioms are the most opaque. Howarth exemplified and tabulated different types of English collocations as shown in Table 2.

**Table 2 Howarth's (1998, p. 28) collocational continuum**

	Free combinations	Restricted collocations	Figurative idioms	Pure idioms
Lexical composites (verb + noun)	Blow a trumpet	Blow a fuse	Blow your own trumpet	Blow the gaff
Grammatical composites (preposition + noun)	Under the table	Under attack	Under the microscope	Under the weather

**Source:** Howarth, 1998, p. 28

Collocations are also categorized based on their structural patterns. As illustrated in Table 2 (see the first column), Howarth's example selection is also based on two major types of collocations as proposed by Benson, Benson and Ilson (1986b). According to them, collocations can be classified into lexical collocations (or composites) and grammatical collocations. Lexical collocations are combinations among English content words including nouns, verbs, adjective, and adverbs. Grammatical collocations contain one content word (usually verb, noun, or adjective) and a particle as well as other grammatical structures such as an infinitive or a that-clause. Lexical collocations consist of seven sub-categories as shown in Table 3. Meanwhile, as displayed in Table 4, grammatical collocations comprise eight sub-categories. Of these, verb collocations contain nineteen sub-categories as shown in Table 5.

**Table 3 Benson, et al.'s classification of lexical collocations**

Type	Pattern	Example
L1	V + Noun/pronoun/preposition	Make my bed
L2	V + N	Commit suicide
L3	Adj + N	Rough life
L4	N + V	Blizzards range
L5	N1 + of + N2	A pack of dogs
L6	Adv + Adj	Keenly aware
L7	V + Adv	Appreciate sincerely

**Table 4 Benson, et al.'s classification of grammatical collocations**

Type	Pattern	Example
G1	N+ Prep	Apathy toward
G2	N + to + Inf	A pleasure to do something
G3	N + that-clause	An agreement that....
G4	Prep + N	On someone's advice
G5	Adj + Prep	Angry at someone
G6	Adj + to + Inf	Ready to do something
G7	Adj + that-clause	Afraid that....
G8	V collocations	See Table 5

**Table 5 Benson et al.'s classification of grammatical collocations of English verbs**

Type	Pattern	Example
G8 (A)	V+ direct O + to + indirect O = V+ indirect O + direct	He <i>gave a red rose to her.</i> = He <i>gave her a red rose.</i>
G8 (B)	V+ direct O + to + indirect O	He <i>mentioned the book to me.</i>
G8 (C)	V+ direct O + for + indirect O = V+ indirect O + direct O	She <i>bought a house for her family.</i> = She <i>bought her family a house.</i>

Table 5 (cont.)

Type	Pattern	Example
G8 (D)	V+ Prep + O	<i>She came on foot.</i>
G8(d)	V+ O + Prep + O	<i>They invited me to the party.</i>
G8 (E)	V+ to Inf	<i>He began to work.</i>
G8 (F)	V+ bare Inf	<i>I had better go.</i>
G8 (G)	V+ V-ing	<i>They started playing the game.</i>
G8 (H)	V+ O + to Inf	<i>I begged him to go.</i>
G8 (I)	V+ O + bare Inf	<i>He let her talk.</i>
G8 (J)	V+ O + V-ing	<i>He found them smoking.</i>
G8 (K)	V+ a possessive and V-ing	<i>I enjoy his singing.</i>
G8 (L)	V+ that clause	<i>The teacher suggested me that I read that book.</i>
G8 (M)	V+ O + to be+ C	<i>I consider him to be well-rounded.</i>
G8 (N)	V+ O+ C	<i>He painted his room blue.</i>
G8 (O)	V+ O1+ O2	<i>He asked me a question.</i>
G8 (P)	V (+O)+ Adverbial	<i>He carried himself well.</i>
G8 (Q)	V+ (O)+ wh-clause/ wh-phrase	<i>She wondered why he was late.</i>
G8 (R)	It+ V+ O+ to Inf	<i>It surprised me to know her attitude.</i>
	It+ V+ O+ that-clause	<i>It surprised me that she was fired from her job.</i>
G8 (S)	V+ C (Adj or N)	<i>He was a gentleman.</i>
G8 (s)	V+ C (Adj)	<i>She looks bad.</i>

Based on fixedness and frequency of co-occurrence, Lewis (1997) classified collocations into strong, weak, frequent and infrequent. Collocations are considered strong or weak by their fixedness. The more they function as single words, the stronger chance they are considered as strong collocations. However, weak collocations are weakly combined since each word can occur with other words to form a number of expressions. For instance, *drink beer* and *drug addict* are strong collocations, and *a nice day* and *a good chance* are weak collocations. Both types of collocations can be either



frequent or infrequent based on their frequency of occurrence. Usually, strong collocations are the least frequent collocations due to their fixedness and lack of variety.

### 3. Importance of collocations

Collocational knowledge has an important role in the acquisition of either first language (Henceforth: L1) or second language (Henceforth: L2). Wray's (2002) model of formulaicity in language acquisition portrays how collocational knowledge takes an important part in L1 acquisition. Her model conclusively reports how language is processed in four phases of ages, from birth to adulthood. As Figure 4 illustrated, language can be processed in two ways including holistic and analytic processing. While in holistic processing, language users rely on chunking and memorizing collocations, in analytic processing, their focus is shifted to analyzing the elements of the combinations.

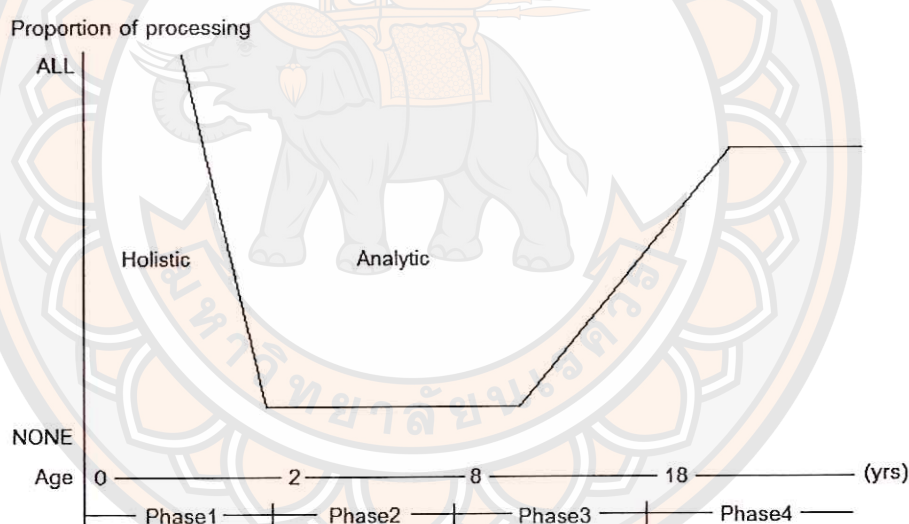


Figure 4 Wray's (2002) model of formulaicity in language acquisition

Source: Wray, 2002

As Wray (2002) observed, language learners employ varied proportions of holistic and analytic processing in different phases of life. At the earlier stage from birth to around 20 months (Phase 1), they significantly rely on holistic processing – remembering, imitating, and interpreting pieces of utterances and intonations, as well as

facial and body gestures. In phase 2 (from 20 months to 8 years), showing the shift to analytic processing, the learners begin to increase their attention to the elements of utterances including words and morphemes. Their grammatical awareness begins to develop during this phase. In phase 3 (from 8 to 18 years), their reliance on holistic processing becomes greater as their language outputs have a greater proportion of formulaic sequences and collocations. In the final phase which is after 18 years, the learners have settled their balance in language processing techniques with a mixture of holistic and analytic processing.

In addition to being a resource for L1 acquisition, an exposure to English collocations also fosters native-like competence in English as a second language (Henceforth: ESL) and English as a foreign language (Henceforth: EFL) learners (Howarth, 1998) mainly due to the nature of collocations that facilitates language processing. Collocations, just like chunks, are stored in long-term memory via the process of chunking (Nattinger and DeCarrico, 1992) – the meaningful groupings of a language to store in memory for language reception and production (Nation, 2001). With a greater number of collocations, learners use less processing time and effort in language comprehension and production than storing individual language elements in long-term memory (Hill, 2000; Nation, 2001; Wray, 2000). As Hill (2000) suggested, the knowledge of disjoint vocabulary does not make up an effective communication. L2 learners may know, for example, the words *hold* and *conversation* separately, but may not know that these two words appear together. This limitation causes language learners' lacks of fluency since they need time to think about the following words. In the other way around, when they have collocational knowledge, being able to predict what other words will appear after a word occurs, their language fluency, either receptive or productive skills, becomes greater. However, according to Nation (2001), collocational knowledge can be disadvantageous since it can mean a load of storage in long-term memory, and more prefabricated chunks may interfere with creative compositions of individual words.



### Multi-word Verbs

As discussed in the earlier section, collocations' categorizations are not static since there has been an unclear line to distinguish them from idioms and free combinations. For example, while Aisenstadt (1979, 1980 as cited in Taeko, 2005) categorizes collocations separately from idioms and free combinations, Howarth (1998) recognizes every type of word-combinations as collocations.

However, Blaheta and Johnson (2001) concluded that collocations generally possess two major marked qualities which make them differ from other word combinations. Primarily, their meanings are not fully compositional because at least one of their constituent words carries a special, either restricted or modified, definition. Secondly, collocations are not completely frozen, but still not easily modifiable. One of their constituents may be substituted by a synonym, or a modifier can be inserted. However, despite having no effect on understandings, these changes are odd to native speakers.

Based on these qualities, Blaheta and Johnson (2001, p.1) added, "Multi-word verbs comprise a domain that definitely meets both these criteria." In order to prevent any confusion due to unclear categorizations, the current study equated verb + preposition collocations to multi-word verbs.

Verb + preposition collocations are comparable to multi-word verbs in their structures. Based on well-known English grammar manuals including *Student Grammar of Spoken and Written English* written by Biber, Conrad and Leech (2002) and the *Teacher's Grammar of English* written by Cowan (2010), three major classes of multi-word verbs which were mentioned in both manuals include:

1. Phrasal verbs
2. Prepositional verbs
3. Phrasal prepositional verbs

Phrasal verbs and prepositional verbs have the same construction with a verb followed by a particle. Phrasal prepositional verbs consist of a verb followed by a preposition and a prepositional phrase. Biber, et al. (2002) and Cowan (2010) characterized each class of multi-word verbs as follows.



## 1. Phrasal verbs

Phrasal verbs are made up of a verb and a following particle. The particle following the verb can be two types of words, prepositions or adverbs. To greater extent, the particle is a preposition. However, in a phrasal verb, it does not function as a preposition nor an adverb, but as a part of the verb. As a part of phrasal verbs, the preposition does not have a literal meaning which usually signifies places and directions. Examples include *set up*, *hand in*, and *give up*. The original meanings of *up* in *set up* and *in* in *hand in* is not retrievable because as a whole, they mean to *begin or to construct* and *to return or submit*, respectively. Meanwhile, the original meanings of both *give* and *up* in *give up* are not conveyed since it is considered as another combination of words which altogether means *to surrender*.

Phrasal verbs can be either transitive or intransitive. Transitive phrasal verbs typically allow particle movements but with some restrictions depending on the direct object (See Cowan, 2010, pp. 171-172).

1.1 The particle movement rule must be applied if the direct object is a personal pronoun (him, her, it, them, etc.) or a demonstrative pronoun (this, that, these, those). For example,

- *Bill looked it up.*
- *Carrie took that off.*

1.2 The particle movement rule is optional when the direct object is not a pronoun. For example,

- Jack **looked up** the address. ✓
- Jack **looked** the address **up**. ✓

However, when the direct object is a long noun phrase, the particle is not movable. For example,

- John **looked up** some information about an early religion in which forces of nature such as five were worshipped. ✓

- John **looked** some information about an early religion in which forces of nature such as five were worshipped **up**. ✗

If the direct object is an indefinite pronoun such as *some* and *other*, or a quantifier, such as *a few* and *several*, the particle movement rule is optional. For instance,

- I **picked up** a few this morning. ✓

- I **picked** a few **up** this morning. ✓

1.3 Some transitive phrasal verbs are inseparable since the meanings cannot be constructed from the sum of their parts such as *pick on* (to blame), *look after* (to pay attention, to take care of), *come by* (to acquire), *look into* (to investigate), and *run into* (to encounter).

Intransitive phrasal verbs are, most of the time, inseparable. According to Cowan, they are far less frequently used in academic prose. Examples include *come on*, *hold on*, *break down*, *take off*, *sit down*, *move on*, *check out*, and *die down*. As Biber, et al. (2002) observed, they often occur as imperatives, and in declarative clauses, they typically have a human subject.

Meanwhile, some phrasal verbs can be either intransitive or transitive. When they are transitive, the particle movement rule is applicable. For instance,

- The ship **blew up**.

- The terrorists **blew up** the ship.

- The terrorists **blew** the ship **up**.

## 2. Prepositional verbs

According to Biber, et al. (2006), prepositional verbs are multi-word verbs, of which the verb is followed by a prepositional phrase (Cowan, 2010) or what Biber, et al. (2006, p. 129) call “a prepositional object, i.e. a noun phrase that occurs after a preposition.” Prepositional verbs are, most of the time, transitive verbs. They need a



prepositional object. However, whether a preposition is a part of a verb or a part of a prepositional phrase are variable. According to Biber, et al. (2006), prepositional verbs can be analyzed in two ways based on their grammatical construction. Firstly, a preposition is a part of prepositional phrase which functions as adverbial since it can be separated from the verb by an adverb. For example, *you look exactly like your father*. Or else, it can be a part of the verb or a single 'prepositional verb' because some prepositional verbs have idiomatic meanings and can be replaced by a single transitive verb. As Biber, et al. (2006) exemplified,

*Thought about it → consider it*

*Asked for permission → requested permission*

Meanwhile, Cowan (2010) seems to attribute prepositional verbs as a part of the verb itself. As Cowan (2010, p. 175) states, "Their [prepositional verbs'] second element is a preposition and so their two parts cannot be separated by the object." This may be inferred that if the preposition is the second element, it could be inferred that it is one of the verb's elements.

In terms of patterns in which prepositional verbs occur, Biber, et al. (2006) suggest that prepositional verbs can occur in two structural patterns as follows.

Pattern 1: NP + V + prep + NP (prepositional objects are underlined)

- It just looks like the barrel.
- I've never even thought about it.

Pattern 2: NP + V + <sup>1</sup>NP + prep + <sup>2</sup>NP

(<sup>1</sup>direct objects and <sup>2</sup>prepositional objects)

- It reminds me of some parts of Boston
- He said farewell to us.

Additionally, some prepositional verbs commonly appear as passive verbs.

- The media is falsely **accused of** a lot of things.
- The initiative is **based on** a Scottish scheme.

Cowan (2010) exemplified how the verb and its particle cannot be separated by an object when they occur in pattern 1. Examples include:

- ✓ He **applied for** the job.      ✗ He **applied** the job **for**.
- ✓ Alice **depends on** her mother.      ✗ Alice **depends** her mother **on**.

## 2.1 Testing prepositional verbs

Prepositional verbs can be distinguished from other multi-word verbs by the test of three following questions (Biber, et al., 2006):

### 2.1.1 Whether or not there is an idiomatic meaning.

- 1) Phrasal verbs do not retain the original meanings.

e.g. *shut up, pick up, get up*

- 2) Prepositional verbs retain the original meanings.

e.g. *go in, come back, look back*

### 2.1.2 Whether or not particle movement is possible.

- 1) Transitive phrasal verbs allow particle movement.

e.g. *I'll pick you up.*

*I got it back.*

- 2) Transitive prepositional verbs do not allow particle movement.

e.g. *She is waiting for a bus.* ✓

*She is waiting a bus for.* ✗

*They are looking at the view.* ✓

*They are looking the view at.* ✗

### 2.1.3 How the wh-question is formed.

- 1) The question words used with a free combination of adverbial prepositional phrase are *where* and *when*.



e.g. **Where** are you walking? I am walking *to the market*.

**When** will the movie show? It will show *at noon*.

2) The question words used with prepositional verbs are *who* and *what*.

e.g. **Who** are you *talking about*? I'm *talking about* Ann.

**What** are you *laughing at*? I'm *laughing at* the clown.

In addition to the criteria above, Cowan (2010) gave the other three means to test prepositional verbs.

#### 2.1.4 Adverb insertion test

1) Phrasal verbs do not allow adverb insertion, while prepositional verbs do.

Phrasal verb - He *shut* suddenly *up*. ✗

Prepositional verb - He *looks* partially *like* his father. ✓

#### 2.1.5 The relative clause test

1) Phrasal verbs do not allow a relative clause starting with a preposition, while prepositional verbs do.

Phrasal verb - The dress *on which she tried* didn't fit her. ✗

Prepositional verb - The man *for whom they were waiting* was late. ✓

#### 2.1.6 The Wh-question test

1) The preposition of a phrasal verb cannot be moved to the front to form a wh-question, while the preposition of a prepositional verb can.

Phrasal verb - *Up* what are you *looking*? ✗

Prepositional verb - *At* whom were you *shouting*? ✓

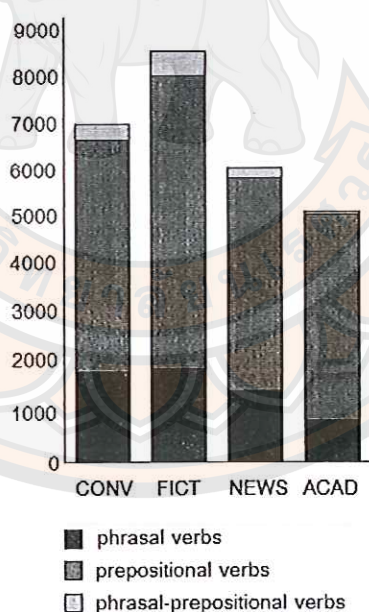
### 3. Phrasal prepositional verbs

Different from the previous classes of multi-word verbs, phrasal prepositional verbs are made up of three words. The first element is a verb followed by a preposition and a prepositional phrase. All phrasal prepositional verbs are transitive verbs since they need a direct object. Examples of the verbs in this class are *look up to*, *look forward to*, *put up with*, etc. These verbs can be considered as one-word verbs as

they can be replaced by other one-word verbs such as *look up to* = *to admire*, *look forward to* = *to anticipate*, and *put up with* = *to endure*.

Some phrasal prepositional verbs have gerund complements in addition to nouns and pronouns such as *looking forward to hearing from you soon* and *get away with telling a lie*.

These three classes of multi-word verbs appear in different registers with close proportions. As a bar chart presented by Biber, et al. (2002, p. 127) illustrated in Figure 5, prepositional verbs are the most frequently used multi-word verbs in conversations, fictions, news, and academic texts. Phrasal verbs come the second with far less frequent occurrence than prepositional verbs. Meanwhile, phrasal-prepositional verbs have the least chance to appear in every register, especially in academic written English. As the selection of multi-word verbs was from the academic word list (Coxhead, 2000), phrasal-prepositional verbs were excluded from the present study.



**Figure 5 Biber, Conrad and Leech's (2002) distribution of multi-word verbs across registers**

**Source:** Biber, Conrad and Leech, 2002, p. 217



## Language Errors

Errors are flaws in learners' speech or writing which deviate from a selected norm of a language used by mature language users (Dulay, Burt and Krashen, 1982). In second language production, errors refer to non-native speakers' uses of a second language that are consistently and systematically deviated from the language used by adult native speakers (Brown, 1994; Norrish, 1983). They can be either random errors similar to mistakes appearing in the mother tongue (L1), or systematic errors due to deficient competence in a language additionally learned (L2) (Corder, 1981).

However, errors are different from mistakes. While mistakes are flaws from language users' performance, errors are caused by a limited language competence (Corder, 1981). In spite of knowing the system of the language, both native and non-native speakers randomly generate mistakes as a daily basis (Brown, 1994). Mistakes are slips of the tongue (speaking) or the pen (writing) that speakers or writers can naturally backtrack and repair, so they cannot be used to infer levels of language competence of language users (Corder, 1981). However, errors can indicate the level of ability to use a second language of the user (Brown, 1994). Once producing an error, the learner cannot backtrack to correct it despite being already taught (Edge, 1989).

### 1. Error analysis

Before the rise of error analysis (Henceforth: EA) in 1960s, errors in L2 were regarded as the products of L1 interference or interlingual transfers in the perspectives of contrastive analysis (Henceforth: CA) (Bennui, 2008; Lennon, 2008; Tarone, 2006). CA compares two linguistic systems: L2 language users' native language (Henceforth: NL or L1) systems and the target language (Henceforth: TL or L2) systems to investigate L1 interferences in their TL production (Richards and Schmidt, 2002). In CA, errors are regarded as problems of L2 learning (Richards, 1974). It was believed that inappropriate transfers of structures and vocabulary from L1 will inhibit and interfere L2 learning and acquisition (Friedlander, 1990),

However, in error analysis, intralingual transfers are additionally important sources of L2 errors. As Corder (1967) suggested, L2 input itself is another crucial source for L2 learners to form their hypothesis about that language and develop their *transitional competence*, the competence of their own system of TL which are in between their NL and TL. Therefore, instead of regarding errors as problems of L2

learning just like CA perspectives, in EA, errors are viewed as evidence of success and achievement of learning, the process of acquiring language and the strategies of learners use (Corder, 1981). As Henrickson (1987, p. 357) contended, "Errors are signals that actual learning is taking place, they can indicate students' progress and success in language learning." According to Corder (1974), five stages are involved in error analysis.

- 1.1 sample collection
- 1.2 error identification
- 1.3 error description
- 1.4 error explanation
- 1.5 error evaluation

Corder (1981) claimed that error analysis is significant in three ways. Firstly, errors help inform teachers and learners' progress. Secondly, they provide researchers the evidence of how L2 is acquired and what language learning strategies the learners employ in L2 learning. Thirdly, errors raise learners' awareness of their L2 production flaws. In other words, errors are resources for the learners to learn and use L2 more effectively. All in all, errors can indicate levels of ability to use L2 of learners (Brown, 1994).

## **2. Collocational errors**

If language errors are flaws in learners' speech or writing which deviate from a selected norm of a language used by mature language users (Dulay, et al., 1982), collocational errors are learners' use of collocations which deviate from the norm of mature English native users. In this study, the correctness of verb + preposition collocations was based on two varieties of native speakers of English including American English and British English, of which their language use were collected in Oxford Collocations Dictionary (2009) for Windows and in two popular English corpora: Brown corpus and British National Corpus.

### **2.1 Sources of collocational errors**

Liu (1999 as cited in Li, 2005) analyzed collocational errors in Taiwanese students' writings. She found that the errors in Taiwanese students' writings were due to seven main factors, as shown in Table 6.



**Table 6** Liu's (1999) summary of sources of collocational errors

Types of Strategy	Type of Transfer	Strategies
Cognitive strategies	Intralingual Transfer	Overgeneralization
		Ignorance of Rule Restrictions
		False Concepts Hypothesized
		The Use of Synonym
Communicative strategies	Interlingual Transfer	Negative Transfer
	Paraphrase	Word Coinage
		Approximation

Collocational errors can result from various strategies that L2 learners use in producing the target language. According to Liu (1999 as cited in Li, 2005), these strategies can be generally grouped as cognitive strategies and communicative strategies. Cognitive strategies are those that are related to intralingual and interlingual transfers. In terms of intralingual transfers, collocational errors are caused by L2 learners' application of their existing L2 knowledge or strategies to other language features they lack knowledge of. These strategies are overgeneralization, ignorance of rule restrictions, false concept hypothesized, and the use of synonym. For interlingual transfer, L1 knowledge has an influence on L2 production. Meanwhile, communicative strategies involve compensation strategies such as word coinage and approximation. Based on Liu (1999; Li, 2005) elaborated the definitions of these strategies, together with examples as follows.

*Overgeneralization* is the case that learners are unable to distinguish language items or rules that are very similar. For example, that learners use the collocation *I am worry about* instead of *I am worried about* may be due to their inability to clearly differentiate between these two expressions – *I am worried* and *I worry about*.

*Ignorance of rule restrictions* is caused by learners' failure to notice the restrictions of a structure acquired earlier and a new structure. Due to this, learners may have inappropriate matching of lexis and grammar by using an acquired restricted structure to form a new phrase. For instance, the phrase "*ask you a favor*" is the result

of inappropriate replacing a fixed phrase – “*do me a favor*” with some other constituents.

*False concept hypothesized* results from L2 learners’ misunderstandings of some words or structures that they can be used interchangeably. For example, they may misunderstand that de-lexicalized verbs including *make*, *do*, and *take* can replace one another freely. Hence, they may make various random errors such as *make homework* instead of *do homework*, *do actions* instead of *take actions*, *have a great grade* instead of *get a good grade*, and etc.

*The use of synonyms* can result in collocational errors. Unlike false concept hypothesized strategy that errors are caused by learners’ false conception that a set of words has the same meaning and use, in this case L2 learners are aware that a pair or set of words have close meanings, but they are unaware of distinctive use. For example, they might use *broaden your eyesight* instead of *broaden your vision*.

*Interlingual transfer* results in *negative transfer*. Errors resulted from negative transfers are usually caused by L2 learners’ word-for-word translations from their L1 to L2. They normally occur when the original expression in L1 does not match with the target expression in L2. As Phoocharoensil (2013) reported, this kind of errors is usually made by Thai students. For instance, Thai students often omitted the preposition after verb + preposition collocations such as omitting *to* after *listen* and omitting *of* after *take care* because the Thai verb *fuay* - *listen to* and *duulee* - *take care of* do not need to be followed by a preposition before an object.

*Communicative strategies* are caused by L2 learners’ attempts to compensate their lack of knowledge of some language features or expressions in the target language by *paraphrasing*. Therefore, they may employ *word coinage* to make up a new word or expressions such as *see sun-up* instead of *see the sunrise*. Or else, they may apply *approximations*. In this later case, L2 learners try to translate from L1, but they are unsure of some elements, so they replace that element with the word that has a shared semantic feature, spelling or pronunciation. For instance, they use the word *middle* in *middle exam* in place of the word *mid-term*.



Hong, et al. (2011), on the other hand, chose to develop a framework by adapting Richards' paper on error analysis issued in 1974 and Tarone's (1981) study on communication strategies. However, as displayed in Table 7, the framework is not far different from Liu's (1999) framework as only some sub-categories are different.

While Liu's (1999) interlingual transfer means any negative L1 transfer, Hong, et al.'s (2011) consisted of L1 transfer caused by L1 transliteration and language switch. Unlike Liu, for intralingual transfer, Hong, et al. (2011) did not include the use of synonym. Under the major categorization "paraphrase," Hong, et al. also included approximation but excluded word coinage. Also, two sub-categories were included under approximation. These were semantic affinity and morphological and phonological affinities.

**Table 7 Hong, et al.'s (2011) sources of collocational errors**

Strategies	Major categorizations of sources of errors	Sub-categorizations of sources of errors
Cognitive Strategies	Interlingual Transfer	a) L1 transliteration/L1 literal translation
		b) Language switch
	Intralingual Transfer	a) false concept hypothesized
		b) overgeneralization
Communicative Strategy	Paraphrase	c) ignorance of rule restrictions (failure to observe the restrictions of existing structure and analogy)
		a) approximation
		- semantic affinity - morphological and phonological affinities

**Source:** Hong, et al., 2011



Hong, et al. (2011) roughly defined those distinctive sub-categories as follows. While L1 transliteration refers to word-for-word translation from learners' L1, language switch refers to the direct use of learners' L1 without translation to the target language. Semantic affinity and morphological and phonological affinities resulted from learners' inappropriate paraphrases resulted from the similarities of two items, the item that they misuse and the correct item. These similarities are having close meanings (semantic affinity), containing some similar morpheme (morphological affinity), and sounding similar (phonological affinity). Examples include: using *cutting* some flowers instead of *picking some flower* (semantic affinity), *it maintains 15 pieces per box* instead of *it contains 15 pieces per box* (morphological affinity), and *safe my friend* instead of *save my friend* (phonological affinity). As Hong, et al.'s (2011) is a more recent framework, the present study decided to use it as a framework to analyze the sources of collocational errors.

### Research Literature

There have been a number of research studies on collocational knowledge of L2 learners, generally conducted to compare collocations used by native and non-native speakers, across different types of collocations, and across proficiency levels. Meanwhile, some of them explored the sources of collocational errors, and the lesser extent of studies explored the development and acquisition of collocational knowledge and discussed the use of multi-word verbs and difficulties in use. Hence, the studies will be discussed under the sub-topics as follows.

1. Use of collocations compared between native speakers vs. non-native speakers
2. Use of collocations compared by types of collocations
3. Sources of collocational errors
4. Development and acquisition of collocational knowledge
5. Use of multi-word verbs
6. Difficulties in using multi-word verbs

### 1. Use of collocations compared between native speakers vs. non-native speakers

Many studies compared the use of collocations of native speakers of English and non-native speakers and typically found that the latter party used a limited range of collocations (Fan, 2009; Laufer and Waldman, 2010) and this resulted in nonnativeness of L2 production (Ellis, 2008; Howarth, 1998; Leśniewska, 2006; Granger, 1998). Fan (2009) compared the number and the types of collocations used by secondary school leavers including sixty Hong Kong ESL learners and sixty native English speaking learners. The former party recognized and produced fewer collocations. Laufer and Waldman (2010) compiled a corpus of 300,000 words from argumentative and descriptive essays written by Hebrew speakers in three groups of English proficiency (high/ moderate/ low). They conducted a corpus analysis to compare the number of verb + noun collocations used by these Hebrew speakers and of young adult native speakers of English. They found that Hebrew speakers regardless of English proficiency used far less collocations than the native speakers, and an increase in the number of collocations used became apparent only in the non-native English speakers in the advanced-level group.

In other studies, L2 advanced learners were also reported to lack collocational knowledge and were not proficient collocational users. Nesselhauf (2003) revealed that advanced German speaking learners of English produced errors in verb + noun collocations at all levels of collocational restrictions. Similar findings were also revealed in Thailand's context. As Khittikote (2011) reported, Thai EFL learners at advanced level had problems in recognizing collocations in spite of regular exposure to English.

Despite an increase in the number of collocations used (Laufer and Waldman, 2010), L2 production of advanced learners was still non-native like due to the use of limited range of collocations and a likeliness to employ an open-choice principle (Sinclair, 1991) in forming phrases or sentences (Ellis, 2008; Howarth, 1998; Leśniewska, 2006; Granger, 1998). For example, Granger (1998) found that L2 learners tended to use "all purpose" intensifiers such as *highly* and *fully* with various adjectives in their writing. By employing an open-choice principle, they created new phrases with a correct syntactic patterns (intensifier + adverb), but some of their phrases were



uncommon when compared to those of native speakers. For example, while native speakers used *highly* to intensify *aware* and *reliable*, L2 learners also used it to intensify *different*, *significant*, *impossible*, and *available*. Leśniewska (2006, p. 99) elaborated how a limited range of collocations resulted in non-nativeness of L2 production of advanced L2 learners as follows.

...Advanced L2 users may produce phrases and expressions which, considered individually, are correct, in the sense that they do not violate the L2 rules of morphology, syntax, semantics, etc. However, the cumulative effect of the use of certain phrases rather than others may give the impression of non-nativeness. For example, there is nothing wrong with the phrase *very interesting*; however, if a learner uses *very* as the only adjectival and adverbial intensifier, the overall effect in a piece of writing will attract attention as the case of the overuse of *very* and – at the same time – underuse of other potential intensifiers.

(Leśniewska, 2006, p. 99)

Henriksen (2013, pp. 40-41) indicated four reasons to explain why even fairly advanced L2 learners may fail to develop collocational competence as follows:

- 1.1 Insufficient exposure to L2 collocations; more frequent appearances of single-word items than collocations
- 1.2 L2 learners' tendency to focus on individual words
- 1.3 Lack of semantic transparency of some collocations' components  
(The meaning of some collocation cannot be predicted by the meaning of their parts).
- 1.4 Lack of awareness of collocations as lexical units; failure to notice and intake collocations

## 2. Use of collocations compared by types of collocations

When compared by different categories of collocations, a number of researchers commonly reported that EFL learners across levels of proficiency are deficient in using both lexical collocations and grammatical collocations, but different details were also observed. Taiwanese learners, either high school students or college



students, were commonly reported to produce far more errors in using grammatical collocations than lexical collocations (Chen, 2002; Li, 2005). For example, Taiwanese high-school students in Chen's (2002) study produced 147 grammatical errors and 125 lexical errors, and college students in Li's (2005) study produced 121 grammatical collocations and 67 lexical collocations.

The results were inconsistent in Thai learners of English. Generally, research results showed that lexical collocations caused more errors. Boonyasquan (2006) studied violations in collocations in thirty-two senior English majors' translations of a business news article. The most erroneous types were those of lexical collocations (adjective-noun; verb-noun; noun-noun; adverb-verb) followed by grammatical collocations including verb-preposition and preposition-noun. Phoocharoensil's (2011) interlanguage (IL) analysis of ninety Thai freshmen reported interesting results. His data indicated that high-proficiency students produced slightly more deviant lexical collocations than grammatical collocations (51.72%: 48.28%), while low-proficiency students' deviant grammatical collocations obviously outnumbered deviant lexical collocations (58.56%: 41.44%). However, his subsequent study in the year 2013 showed that Thai university students in the first-year of Bachelor's degree, either high- or low-proficiency, had more difficulties in using lexical collocations (high: 44%; low: 53%) than grammatical collocations (high: 37%; low: 40%).

When sub-categories of collocations were taken into considerations, most studies typically found that, for EFL learners, verb + noun collocations were the most problematic features of lexical collocations (Detdamrongpreecha, 2014; Hong, et al., 2011; Kuo, 2009; Li, 2005; Liu, 1999; Phoocharoensil, 2011; Phoocharoensil, 2013). Meanwhile, verb + preposition collocations were grammatical collocations which resulted in the most errors (Boonyasquan, 2006; Hama, 2010; Hong, et al., 2011; Phoocharoensil, 2011; Phoocharoensil, 2013). However, some researchers reported different results. As Boonyasquan's (2006) findings showed, 32 Thai seniors in English major produced more erroneous adjective + noun collocations than verb + noun collocations. Similarly, Hama (2010) revealed that 40 EFL university seniors in Iraq had more problems in using adjective + noun collocations. Meanwhile, in Mongkolchai's (2000) study, 57 Thai EFL second-year English majors' scores from a collocational test

reflected that they are weak at using adverb + adjective collocations (36.18%), followed by verb + adverb (41.67%) and verb + preposition collocations (46.05%). While these studies reported that verb + noun collocations were the most difficult for Thai students in an international college and non-English-major students, Detdamrongpreecha (2015) revealed that adjective + noun collocations caused English majors the most difficulties.

### 3. Sources of collocational errors

The sources of collocational errors of EFL learners were usually explored in parallel to research on comparing errors in different collocational categories. Interestingly, the results were somewhat consistent. As most studies reported, EFL learners' use of collocations has an equal chance to deviate because of interlingual transfers or negative L1 transfers as well as intralingual transfers or inappropriate use of learning strategies.

Researchers including Boonyasquan (2006; Detdamrongpreecha, 2015; Fan, 2009; Farghl and Obiedat, 1995; Hama, 2010; Huang, 2001; Liu, 1999; Mongkolchai, 2000; Naba'h and Al-Shara'h, 2011; Nesselhauf, 2003; Phoocharoensil, 2011; Phoocharoensil, 2013; Yamashita and Jiang, 2010; Yumanee and Phoocharoensil, 2013) emphasized the influence of interlingual transfers on deviations of collocations. The degree of congruence between the same collocational items in L1 and L2 can cause L1 transfers (Nesselhauf, 2003). As Nesselhauf (2003) elaborated, if the pair looks or sounds similar in both languages, negative L1 transfer is less likely to occur. As he exemplified, since *build a house* and *ein Haus bauen* (a house build) shared the same vocabulary items, the L1 transfer had a positive effect because German learners did not misuse the collocation. On the other hand, if two collocations do not consist of the same vocabulary items, negative L1 transfer is more likely. As he showed, German learners misused the collocation *do homework* by *make homework* because in German language the word *homework* naturally occurs with *make* (*Hausaufgaben machen*). In addition to causing errors, Yamashita and Jiang (2010) reported that the congruence between the same collocation items in L1 and L2 affected Japanese EFL learners' performance on the collocational test. When compared with native speakers of English, Japanese EFL learners tended to take longer time and make more errors when they responded to incongruent collocations.



The same phenomenon also occurs everywhere. Boonyasquan (2006; Detdamrongpreecha, 2015; Mongkolchai, 2000; Phoocharoensil, 2011; Phoocharoensil, 2013; Yumanee and Phoocharoensil, 2013) discovered that Thai EFL learners often produced collocations based on word-for-word translation, and this approach resulted in negative L1 transfer. As Phoocharoensil (2013) exemplified, Thai students often omitted the preposition after verb + preposition collocations such as omitting *to* after *listen* and omitting *of* after *take care* because the Thai verb *funj* - *listen to* and *duulee* - *take care of* do not need to be followed by a preposition before the object. Frequently, they added an unnecessary preposition. For instance, they added *at* between the verb and the adverb *there* such as *stayed at there*, *worked at there*, and *arrived at there* because in Thai *thii nan* can be translated as *at (thii)* and *there (nan)*. In fact, they often incorrectly selected prepositions due to translations. Examples include using *tired from* in place of *tired of* and *close with* in place of *close to*.

Intralingual transfers have an equal chance to generate collocational errors in EFL learners. Interestingly, several studies (Bhumadhana, 2010; Hong, et al., 2011; Li, 2005, Wangsirisombat, 2011; Yumanee and Phoocharoensil, 2013) found the intralingual transfer was even more influential in their participants' collocational errors than the interlingual transfer. Among different categories of intralingual transfers, synonymy strategy was most frequently reported (Fan, 2009; Farghl and Obiedat, 1995; Hama, 2010; Kuo, 2009; Li, 2005; Liu, 1999; Miyakoshi, 2009; Mongkolchai, 2000; Phoocharoensil, 2011; Wangsirisombat, 2011; Yumanee and Phoocharoensil, 2013). Synonyms are words with similar or close meaning. Errors caused by the use of synonymy strategy are from choosing a synonym which does not belong to a collocation. As the interview of EFL students in Hama's study reported, students were unable to choose the correct or appropriate component of the collocations from a list of synonyms. For example, they were not sure about selecting *round* or *circular* to modify *face* because the meanings of the two words are similar.

Besides synonymy, an approximation or approximate translation was also one of the most important sources of errors in English collocations as reported by many studies (Bhumadhana, 2010; Hong, et al., 2011; Li, 2005; Kuo, 2009; Wangsirisombat, 2011). As mentioned earlier, approximate translations look like word-for-word translations from L1 to L2, but differently, the learners do not do exact translations but

incorrectly select an element of a collocation which “shares enough semantic features” (Tarone, 1981, p. 491) or has the spelling or pronunciation similar to the target item (Li, 2005). Bhumadhana (2010) and Kuo (2009) indicated that an approximation was the most important source of collocational errors in their studies. Bhumadhana (2010) revealed a series of examples caused by approximations as follows:

Approximate translations caused by semantic similarity. (The correct sentence is in parentheses.)

- I *ensure* that it's true. (I'm *sure* that it's true.)
- Many packages are made to *reveal easily*. (Many packages are made to *be opened/resealed easily*)

Approximate translations caused by spelling or pronunciation similarity.

- It *maintains 15 pieces per box*. (It *contains 15 pieces per box*.)
- The architecture *designs how to build my house*. (The architecture *decides how to build my house*.)

In addition to synonymy strategy and approximations, other strategies of intralingual transfers can be the sources of collocational errors produced by EFL learners. Among different strategies, avoidance and ignorance of rule restrictions were influential sources of errors in many studies.

Avoidance did not cause errors directly but resulted in research findings in many studies (Farghl and Obiedat, 1995; Huang, 2001; Koya, 2003; Naba'h and Al-Shara'h, 2011; Boonyasquan, 2006). Koya (2003) found that lower-proficient learners tended to avoid using the target collocations by giving up responding to the test whenever they did not know some of the target collocations. Huang (2001) indicated that Taiwanese EFL learners frequently avoided restricted collocations and idioms. Boonyasquan (2006) revealed that Thai EFL learners also employed avoidance strategies in their English translations due to insufficient collocational knowledge.

Ignorance of rule restrictions was the most important source of errors in the studies by Li (2005) and Hong, et al. (2011). Li (2005) found that 45% of errors produced by second-year EFL college learners in Taiwan were attributed to ignorance of rule restrictions. Similarly, Hong et al. (2011) reported that 59.60% of the verb-noun collocational errors



errors produced by Malaysian school students were caused by the ignorance of rule restrictions, followed by approximations. In particular, almost all errors of prepositions were significantly affected by this source of errors. When a verb is used with a particular preposition, EFL learners tended to overlook collocational restrictions and use the same linguistic element, usually the preposition, of a particular structure earlier acquired.

In addition to the influential sources of errors mentioned above, other strategies also caused a small number of collocational errors. These were false concept hypothesized (Hong, et al., 2011; Li, 2005), overgeneralization (Li, 2005; Phoocharoensil, 2011), lack of cultural awareness (Detdamrongpreecha, 2015; Huang, 2001), paraphrasing (Farghl and Obiedat, 1995), and word retrieval and appeal for assistance (Wangsirisombat, 2011).

As the most problematic type of collocations, verb collocations were further investigated in a few studies to explore their sources of errors (see Bhumadhana, 2010; Hong, et al., 2011; Khittikote, 2011; Miyakoshi, 2009). Table 8 lists the studies, the subjects, the verbs, and their sources of errors.

**Table 8 List of research studies in errors in verb collocations**

Researcher(s)	Subjects	Verbs	Sources of errors
Bhumadhana (2010)	155 Thai EFL	Verb + noun	37.66% approximations
	university students	collocations with 18	35.82% no or incomplete
	in the English	academic verbs:	responses
	program.	achieve, affect,	9.38% ignorance of rule
	Of these 155	assume, create,	restrictions
	students, 72 were	design, enable,	7.67% use of synonyms
	second-year level;	ensure, establish,	4.24% negative transfer
	83 were third-year	identify, indicate,	3.11% false concept
	level.	involve, maintain,	hypothesized
		occur, publish,	2.12 overgeneralization
		remove, require,	
		reveal, and seek.	

Table 8 (cont.)

Researcher(s)	Subjects	Verbs	Sources of errors
Hong, et al. (2011)	A corpus from 130 English essays written by 872 Malaysian students	Verbs appearing in 130 essays	59.60% ignorance of rule restrictions 21.19% approximations 9.60% L1 transliteration 5.63% false concept hypothesised 2.32% language switch 1.66% overgeneralization
Khittikote (2011)	50 advanced Thai EFL learners at an level in second-year level in a master of Arts, English for careers	20 verb collocations in English for business	No investigation
Miyakoshi (2009)	60 Japanese graduate and undergraduate students at the University of Hawai'i at Mānoa	66 verb + noun collocations with English light verbs: be/become, do, have, take, get, give, receive, make	(1) Inappropriate paraphrases; (2) Misuse of light verbs; (3) Interference of the native language Japanese; (4) Blending two collocations with similar meaning; (5) Mistakes by using morphological synonymy; (6) Use of words other than verbs; (7) Inserting unnecessary articles, particles and prepositions between verbs and nouns; (8) Mistake in distinguishing intransitive and transitive verbs; (9) Creating collocations from compound nouns; (10) Misunderstanding actor- patient relations of verbs; and (11) Phonological errors.



The table overall reported that approximations (Bhumadhana, 2010; Hong, et al., 2011), ignorance of rule restrictions (Hong, et al., 2011), and inappropriate paraphrases (Miyakoshi, 2009) were most important sources of errors in verb collocations. Interestingly, Thai students in Bhumadhana's study did not provide or partly provide full responses in the collocational test at a second highest rank following approximations. They avoided completing some test item if they did not know or were unsure of the verb given. Interestingly, L1 transfer and synonym use had little influence on errors in verb collocations when they were investigated separately from other types of collocations. It was shown that these two sources accounted for errors made by students in Bhumadhana's study and Hong et al's study at the rates of less than 10%. Also, Miyakoshi (2009) reported that L1 interference and synonymy were not ranked as the most important sources of verb errors. Instead, they ranked third and fifth, respectively.

#### **4. Development and acquisition of collocational knowledge**

Even though there have been numerous research studies exploring errors and sources of collocations in various groups of L2 learners, a few research studies have investigated L2 learners' collocation acquisition or development of collocational knowledge at different stages of language learning. Gitsaki (1996; Koya's, 2003; Ebrahimi-Bazzaz, et al., 2014) and Siyanova-Chanturia's (2015) studies were ones of a few.

Gitsaki (1996) attempted to reveal patterns or orders of acquisition/ difficulty/ accuracy of collocations of English learners in the same Greek junior high school. Three types of test tasks including an essay, a translation, and a blank-filling task revealed important findings. An essay writing task indicated that higher proficient learners significantly produced more types of collocations than learners in lower proficiency, and the absent types were more of fixed phrases or infrequent types in everyday English. Verb + noun collocation was one of the absent types in learners' essays which also caused difficulties to learners in all levels as informed by translation data. While grammatical collocations were easier for translation than lexical collocations, grammatical collocations with a preposition were more difficult to translate than collocations with an infinitive as prepositions tended to cause L1 interference. The blank-filling test reported that learners were more accurate when their

proficiency was higher. The results concluded that maturation including ages and proficiency levels affected collocational development, while difficulties in learning or acquiring collocations largely resulted from semantic complexity of collocations. That is, collocations with idiomatic meanings were more difficult to learn and acquire.

Koya (2003) conducted a study to examine collocation acquisition at different stages of language learning in 93 first-year university students in Japan. Twenty-six verb-noun collocations used for general purposes such as *break the law*, *play cards*, and *pass the exam* were the target collocations. Of these, thirteen collocations had equivalent Japanese phrases, while the rest did not. Using general vocabulary knowledge as an independent variable, the study showed that the students' knowledge of collocations with or without Japanese equivalent developed slowly and steadily as their vocabulary knowledge becomes richer. However, the results might be affected by lower-proficient students' avoidance by giving up responding to the test whenever they did not know some of the target collocations.

Despite its purpose to explore collocation acquisition at different stages of language learning, the design of Koya's (2003) study was still limited as it neither consisted of a variety in the participants nor did it involve a length of time to see the different stages of acquisition.

Ebrahimi-Bazzaz, et al. (2014) compared the differences of collocational proficiency by years in undergraduate study. Two-hundred and twelve English-major students whose L1 is Persian were requested to participate in a 50-item blank-filling test. With the focus on verb + noun collocations, their study indicated that learners' collocational proficiency improved through academic years. Additionally, learners with two-year interval generally had significant difference in their scores for collocational proficiency. These were first-year and third-year students' scores and second-year and fourth-year students' scores, with an exception of third-year and fourth-year students which were one-year different but had a significant difference in their scores. Meanwhile, there were no significant differences between first-year and second-year students' scores and second-year and third-year students' scores.

While the study by Ebrahimi-Bazzaz, et al. (2014) involved varied levels of participants, Siyanova-Chanturia's (2015), on the other hand, explored noun-adjective collocation acquisition through English written by 36 Chinese beginner learners of L2



Italian over a period of five months of an intensive course. Three exams were taken with equal interval, approximately seven, 14 and 21 weeks into the course. Thirty-six students' 150-200 word compositions from three exams were compared in size and the frequency of native-like combinations and of strongly associated collocations. The results showed that even though the number of all noun-adjective collocations was about the same with an increase throughout a five-month period, the Chinese learners after the course significantly produced more native-like Italian combinations and a greater number of strongly associated collocations which were more fixed phrased in nature. While a five-month period may not be sufficient to predict learners' future use of Italian collocations, the study highlighted a positive influence of an immersion to an L2 country to develop collocational competence.

### **5. Use of multi-word verbs**

While many studies have been conducted to investigate knowledge and errors of verb collocations including verb + preposition collocations, not many studies directly used the term "multi-word verbs" in their study. These include the studies by Phongphio and Schmitt (2006) and Siyanova and Schmitt (2007). While Siyanova and Schmitt (2007) compared native- and non-native English speakers' use of multi-word verbs and one-word verbs through corpora and questionnaires, Phongphio and Schmitt (2006) investigated how well Thai learners knew and learned multi-word verbs in four dimensions (believed knowledge, receptive knowledge, semantic knowledge, and strategies used).

Siyanova and Schmitt (2007) compared the occurrences of multi-word verbs in spoken vs. written corpora of native-English speakers and in native- vs. non-native English speakers' corpora and compared the likeliness to use multi-word verbs based on a questionnaire' responses of 65 native English speakers and 65 advanced non-native English speakers. The results from corpus analysis indicated that multi-word verbs were more frequent in spoken than written discourses. While the frequencies of multi-word verbs in the native- and non-native written corpora were about the same, non-native speakers were more likely to use one-word verbs more than native speakers. The data from the questionnaire which asked two groups of learners to decide between using a multi-word verb and a one-word verb for the given context followed the similar trend.

That is, the non-native speaker participants were more likely to use one-word verbs but less likely to use multi-word verbs when compared to the native speakers.

Phongphio and Schmitt's (2006) study focused on semantic knowledge of multi-word verbs. Twenty-one Thai undergraduate students from different fields of study were asked to rate their own knowledge of 33 simple multi-word verbs such as *fill in* and *find out*, do a multiple-choice test and translation test of the same verbs, and rate the strategies they used in finding out the meanings of multi-word verbs. The data from the self-rating questionnaire and the multiple-choice test showed little relationship between their believed knowledge and receptive knowledge. However, their believed knowledge was beyond their receptive knowledge as they rated their knowledge of the verbs at 80% in average; their average multiple-choice score was at 55.4%. Meanwhile, their translation test indicated that while they did not know the meanings of half of the 33 multi-word verbs in the multiple-choice test, they were able to provide the correct meanings of 26 verbs when contexts were given. Important strategies they used in finding out the meanings of multi-word verbs were discovery strategies including guessing from text context, using a bilingual dictionary, and asking the teacher to translate or to give a synonym and enhancement strategies including connecting multi-word verbs to personal experience, taking notes in class, and analyzing verb and prepositional or adverbial particles.

## **6. Difficulties in using multi-word verbs**

Due to the characteristics of multi-word verbs as mentioned earlier in this chapter, using multi-word verbs was difficult to English learners for various reasons. Siyanova and Schmitt (2007, p. 120) listed three difficulties of L2 learners in using multi-word verbs as follows.

6.1 Being multi-word units which need to be recognized as single semantic units, multi-word verbs are difficult to be recognized for L2 learners.

6.2 Some multi-word verbs, especially phrasal verbs, have idiomatic meanings, and their meanings in L1 are incongruent to their idiomatic meanings in L2. For example, *brush up on* your French refers to *to revise* instead of directly referring to *to clean* or *to polish something*. Due to this reason, L2 learners who rely on word-for-word translations from L2 to L1 may get the meaning of some multi-word verbs incorrectly.



6.3 Some multi-word verbs are polysemous or have multiple meanings. For example, *bring up* could mean *to carry something up, to nurture children, and to mention*. Due to the multiplicity, L2 learners who do not acquire all the varieties of meanings may be confused with getting the appropriate meanings from L2 input.

These difficulties, as Siyanova and Schmitt (2007) reported, could cause L2 learners' avoidance to use multi-word verbs. As their research which compared a native speakers' corpus and L2 learners' corpus revealed, L2 learners used greater rates of one-word verbs than multi-word verbs. Their self-reported questionnaires showed that they were less likely to use the multi-word verbs than the native speakers at a significant level. However, avoidance to use multi-word verbs could decrease by long-term exposure to a natural L2 environment as they found that L2 learners with over 12-month exposure to natural L2 environment had significantly lower preference to one-word verbs. Yamashita and Jiang's (2010) investigation on the acquisition of collocations by L2 learners, with a special focus on the role of L1 influence, bolstered Siyanova and Schmitt's (2007) reports. Their study suggested that L2 collocations with L1 congruence and L2 exposure positively affected the acquisition of L2 collocations, and noted that the acquisition of incongruent collocations could be difficult even with a considerable exposure to L2.

The earlier difficulties in using multi-word verbs were consistent to the causes of advanced L2 learners' failures to develop collocational competence as reported by Henriksen (2013). These were insufficient exposure to L2 collocations, L2 learners' tendency to focus on individual words and the idiomatic meanings of some collocations.

### Review of Research Instruments

A variety of research instruments were used for data collection by pioneer studies. As Table 9 illustrated, a completion task or blank-filling task was the most frequent source of data, followed by compositions, a multiple-choice task, a translation task, a questionnaire, existing corpus use, email, and yes-no questions. Meanwhile, a matching task, a sentence-building test, and a retrospective think-aloud protocol were used with the lesser extent.

**Table 9 Research instruments used by pioneer studies**

Instrument	Researchers
Completion task	Bahns and Eldaw (1993), Detdamrongpreecha (2014), Ebrahimi-Bazzaz et al. (2014), Farghl and Obiedat (1995), Gitsaki (1996), Hama (2010), Huang (2001), Khittikote (2011), Miyakoshi (2009), Mongkolchai (2000), Naba'h and Al-Shara'h, (2011), Wangsirisombat (2011), and Yamashita and Jiang (2010)
Compositions	Bhumadhana (2010), Chen (2002), Fan (2009), Gitsaki (1996), Hong et al. (2011), Kuo (2009), Li (2005), Liu (1999), Nesselhauf (2003), Phoocharoensil (2011), Phoocharoensil (2013), and Siyanova-Chanturia (2015)
Multiple-choice task	Khittikote (2011), Koya (2003), Mongkolchai (2000), Phongphio and Schmitt (2006), and Yumanee and Phoocharoensil (2013)
Translation task	Boonyasaquan (2006), Farghl and Obiedat (1995), Koya (2003), Phongphio and Schmitt (2006), and Yumanee and Phoocharoensil (2013)
Questionnaire	Li (2005), Phongphio and Schmitt (2006), Siyanova and Schmitt (2007), and Wangsirisombat (2011)
Existing corpora	Laufer and Waldman (2010) and Siyanova and Schmitt (2007)
Email	Bhumadhana (2010) and Wangsirisombat (2011)
Yes-no questions	Detdamrongpreecha (2014) and Yamashita and Jiang (2010)
Matching	Koya (2003)
Sentence-building task	Bhumadhana (2010)
Retrospective think-aloud protocol	Hama (2010)



### 1. Completion task

A completion task, sometimes called a blank-filling task or a cloze test, was used by many studies to measure cued production of collocations. Usually, the researchers had target types of collocations to study. In most studies (e.g. Bahns and Eldaw, 1993; Farghl and Obiedat, 1995; Gitsaki, 1996; Huang, 2001; Khittikote, 2011, Miyakoshi, 2009; Naba'h and Al-Shara'h, 2011; Wangsirisombat 2011), participants were given a sentence with a member of the collocation pair and were requested to fill a collocate for it in a blank. Some studies provided choices (e.g. Hama, 2010), or the first letter of the missing word was given as a cue (e.g. Detdamrongpreecha, 2014; Ebrahimi-Bazzaz, et al., 2014).

### 2. Compositions

Of different types of compositions, an essay writing task was one of the most frequent sources of data. The common purpose of using compositions was to reveal the frequency of various types of collocations used by the participants from free language production. Generally, participants in these studies (e.g. Bhumadhana, 2010; Gitsaki, 1996; Hong, et al., 2011; Kuo, 2009; Li, 2005; Phoocharoensil, 2011; Phoocharoensil, 2013; Siyanova-Chanturia, 2015) were requested to write an essay for a given topic with some length. Meanwhile, other types of compositions were story telling (Bhumadhana, 2010) and reporting a crime to the police based on pictures (Fan, 2009).

### 3. Translation task

A translation task was also used by several studies of which the purpose was to study the influence of participants' L1 on the production of collocations and other sources of collocational errors. Most studies (e.g. Bahns and Eldaw, 1993; Farghl and Obiedat, 1995; Koya, 2003; Yumanee and Phoocharoensil, 2013) requested participants to translate collocations from L1 into L2. If some L2 collocations were chosen, they usually have equivalent collocations in learners' L1. Meanwhile, other studies requested participants to translate a long-length article (e.g. Boonyasquan, 2006). Or else, if the focus of the study was on semantic knowledge of collocations (e.g. Phongphio and Schmitt, 2006), participants were asked to translate from L2 collocations into their L1.

#### **4. Multiple-choice task**

A multiple-choice task was usually used to elicit receptive production of the target collocations. In most studies, participants were usually required to choose the correct collocations from distracters which were synonymous words (Khittikote, 2011; Koya, 2003 Mongkolchai, 2000; Yumanee and Phoocharoensil, 2013). Meanwhile, in other studies which focused on semantic knowledge of collocations, the participants may need to identify a word with different meanings from others and the provided collocations (Phongphio and Schmitt, 2006).

#### **5. Questionnaire**

While a questionnaire was usually used to survey participants' demographic information, pioneer research studies also used it for different purposes. By using a questionnaire, some studies asked participants about the strategies they used when learning or producing collocations (e.g. Phongphio and Schmitt, 2006; Wangsirisombat, 2011), measured their believed collocational knowledge, (e. g. Phongphio and Schmitt, 2006), asked them to rate the likeliness of using collocations or multi-word verbs (e.g. Siyanova and Schmitt, 2007), or rank the most difficult types of collocations (Li, 2005).

#### **6. Existing corpora**

Some researchers (e.g. Laufer and Waldman, 2010; Siyanova and Schmitt, 2007) used existing corpora to compare the frequency of occurrences of the target types of collocations used by native speakers and non-native speakers.

#### **7. Email**

Writing emails could be another form of compositions which also elicits free language production. The purpose of using email as a writing task is to reveal the frequency of the target types of collocations used by participants. Some researchers may request the participants to write an email for an assigned situation (e.g. Bhumadhana, 2010) or to write an email correspondence (e.g. Wangsirisombat, 2011).

#### **8. Yes-no questions**

In yes-no questions, participants were requested to judge whether the collocations given were appropriate or acceptable collocations (e.g. Detdamrongpreecha, 2014; Yamashita and Jiang, 2010).



### 9. Matching

In Koya's (2003) study, a matching activity was used to measure receptive vocabulary knowledge. The participants were asked to match the given words with their definitions.

### 10. Sentence-building task

Bhumadhana (2010) used a sentence-building task to elicit the participants' productive knowledge of the target collocations. The participants were asked to write a sentence from a word given then identify the part of speech of that word.

### 11. Retrospective think-aloud protocol

Generally, a think-aloud protocol is a form of interview which is conducted at the same time during a test task. The interviewee is asked to express their thoughts emerging during the process of the task completion. The interview is usually audio-recorded for data analysis to reveal the mental process during the task. For a retrospective think-aloud protocol, Hama (2010) conducted an interview two days after a sentence completion test to explore the reasons behind their answers.

To conclude, the pioneer studies in collocational errors congruently revealed that verb collocations were the most difficult features in EFL learners in different countries. It was reported that L1 transfer and synonym use were the most important sources of collocational errors in most collocational studies. However, when the verb + preposition collocations were specifically investigated, the results were inconsistent.

In addition, research on verb collocations is still lacking in two main dimensions. Despite being frequently reported as the most problematic collocations in general, verb + preposition collocations have rarely been explored thoroughly to understand the extent to which EFL learners can use them. Moreover, there has been little research conducted to reveal different dimensions of use of verb + preposition collocations or multi-word verbs in different levels of students.

Due to these reasons, the current study was designed to provide an insight into various dimensions of English multi-word verbs used in academic English. Through quantitative and qualitative research methods, the study attempted to study the knowledge and use of multi-word verbs of Thai EFL university learners, to understand why they used them incorrectly, and to reveal their perceived difficulties in using multi-

word verbs. Two levels of university students majoring in English were selected as the target participants in order to study their development of knowledge in multi-word verbs in academic English. They were first-year and third-year English-major students in Bachelor's degree in a Thai university. They were tested for their knowledge and ability to use academic multi-word verbs, and their errors made were analyzed to identify the most to least difficult items, as well as the sources of errors. Then, a retrospective and a semi-structured interview were conducted to reveal their reasons behind their answers and their perceived difficulties in using English multi-word verbs, respectively.





## CHAPTER III

### RESEARCH METHODOLOGY

This study aimed at exploring the use of multi-word verbs in academic English by Thai university students of English. This chapter discussed important issues related to research methodology as follows.

Population and Sample

Research Design

Research Procedures

Research Instruments

The Validity of Research Instruments

The Reliability of the Instruments

Data Analysis

Pilot Study

#### **Population and Sample**

Initially, the target population of the present study were English majors in two Bachelor's degree levels and a Master's degree level who were studying at Naresuan University during the second semester of the year 2014 (from January 2015 to May 2015). They were first-year and third-year students in Bachelor's degree and first-year students in Master's degree. However, since the number of students in Master's degree level decreased due to students' dropouts, a statistical comparison across three groups was not possible. Thus, they were unfortunately excluded from the current study.

The two groups of students were purposefully selected in order to represent different levels of ability in using multi-word verbs over a period of time in higher education. Students in the second-year and forth-year levels in Bachelor's degree were excluded from the study due to the concern that their adjacent levels may not provide a distinctive result. As supported by research findings of Ebrahimi-Bazzaz, et al. (2014) and Gitsaki (1996), the development of collocational knowledge is significant with at least two-year difference. Hence, while first-year students represented high-school

leavers, third-year students represented students in the middle way in Bachelor's degree, who were going to participate in an internship within a year.

The target population of this study was English majors in two Bachelor's degree levels who were studying at Naresuan University during the second semester of the year 2014 (from January 2015 to May 2015). They were 58 first-year students and 64 were third-year students. However, due to some students' resign (2 first-year students) and absence (4 first-year students: 8 third-year students) from the class by the time of the study, the test respondents consisted of 52 first-year students and 56 third-year students, which equaled 89.66% and 87.50%, respectively.

As Table 10 displays, the maximums, minimums, means of grade point averages (GPAs) of the first-year and third-year participants were 3.91 and 3.86, 2.58 and 1.98, and 3.34 and 3.09, respectively. Three students from each group were selected based on voluntary for interviews.

**Table 10 Summary of participants and their grade point averages**

Group	Number of participants	GPAs		
		Maximum	Minimum	Means
1 <sup>st</sup> yr	52	3.91	2.58	3.34
3 <sup>rd</sup> yr	56	3.86	1.98	3.09

### Research Design

The study is survey research which investigated the differences between the use of English multi-word verbs of university students in two different years of study: first-year English majors and third-year English majors. The study employed a mixed-method research design which combined "different kinds of inquiry designs and different philosophical assumptions – within the same study or project" (Somekh and Lewin, 2011, pp. 259-260) for a complementary purpose "to generate elaborated and comprehensive understandings of complex social phenomena." Based on Creswell and Plano's (2011) classification of mix-method research studies, the present study employed an embedded design, which relied on both quantitative and qualitative data collection and analyses. If one data set had a primary role, another data set had a



secondary role, which might occur before, during, and/or after the data collection of the primary data set. For this study, the major data set was from the quantitative data collection from a test instrument; meanwhile, the secondary data set was from the qualitative data collection, interviews, which were conducted immediately after the test session.

### Research Procedures

Three major processes were involved in the current study: 1) the extraction of multi-word verbs, 2) test construction and validation, and 3) data collection and analysis. After the multi-word verbs had been extracted from Coxhead's Academic Word List (2000), the test of the verbs was constructed and validated through a pilot study. Then, the test was administered with two groups of students separately with the similar test conditions. After the test, three participants from two groups of students were chosen based on their voluntary. As the final step, the gathered data were analyzed to answer the research questions. Figure 6 displays the procedures involved in the present research in a diagram.

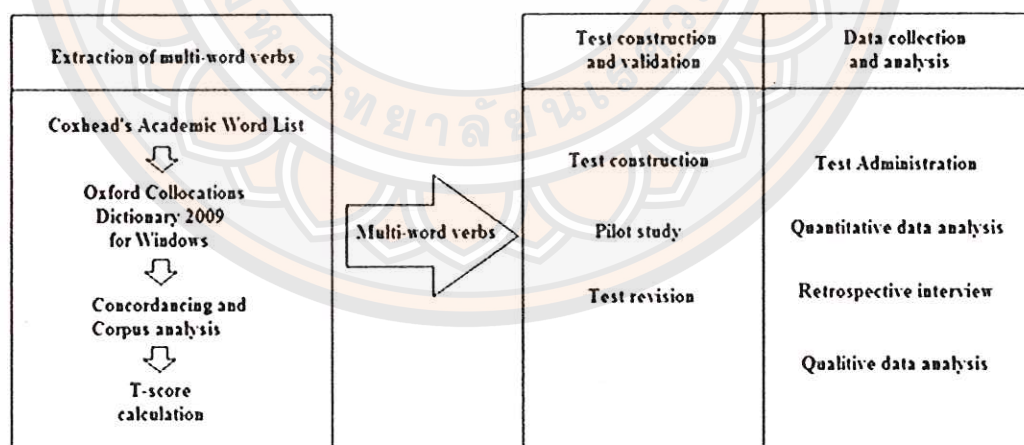


Figure 6 The research procedures of the study

## Research Instruments

Three major instruments will be used to collect the data for this study.

1. Test of English multi-word verbs
2. Scoring instruments
3. The Interviews (topics and sub-topics)

### 1. Test of English multi-word verbs

#### 1.1 Test development

Before the construction of the test, the target multi-word verbs were selected from Coxhead's (2000) Academic Word List. Three selection procedures were: dictionary consultation, concordancing and corpus analysis, and t-score calculation. As the selection involved varied procedures, the details and the results were elaborated and discussed in Appendix D as a preliminary study. As the result of that study (Inmanee and Cedar, in press), thirty verbs were extracted as follows.

consist of	contribute to	remove from	derive from	concentrate on
participate in	rely on	focus on	attribute to	submit to
adapt to	benefit from	coincide with	expose to	transform into
dispose of	occur to	link to	conform to	recover from
sum up	exclude from	compensate for	restore to	reside in
quote as	intervene in	shift to	file for	release from

Two major reasons accounted for why the verbs were selected from Coxhead's (2000) Academic Word List. One important reason was that the target populations were university English-major students who had been continuously exposed to English used in academic contexts. Another reason was a widespread acceptance of the list.

The test of multi-word verbs consists of two parts: the sentence building part and the sentence completion part. Throughout the parts, the specific terms which could hint the answers such as multi-word verbs, phrasal verbs, collocations, or prepositions were avoided.

The first part of the test is a sentence-building task. It was designed to explore how the participants used English multi-word verbs in their written sentences.



As seen in Figure 7, the sentence building test consists of a table of which the left column lists the verb constituents of the target multi-word verbs, and the right column is left empty. The students were requested to write a complete sentence from the given verb. The directions were written in both English and Thai language to avoid a misinterpretation of the test task.

Part I: Sentence Building Test		
<b>Directions:</b> Write a complete sentence using the given verb. คำสั่ง: จงเขียนประโยคที่สมบูรณ์จากคำกริยาที่ให้มาในแต่ละข้อ 1 ประโยค		
	Verb	Sentence
1	consist	
2	contribute	

**Figure 7 The format of the sentence building part**

The target prepositions were not given in order to ensure that the test would elicit students' true ability to use the verbs with the target prepositions and to avoid hinting the answers for the next part of the test. As a result of such decision, there was also an important limitation that students could also produce correct sentences without using the target prepositions. However, the study could benefit from it as students' written sentences could reflect their familiarity with the target multi-word verbs and reveal other sets of multi-word verbs they might use.

It should be noted that the sentence composition from the target word may not be the best way to measure the depth of vocabulary knowledge (Read, 2000). However, it can fulfill the sentence completion test in the lack of dimension of use since students need to develop the context that the verb is appropriately used on their own. Furthermore, while other composition tasks such as essay writing is one of the best ways to elicit students' breadth and depth of vocabulary knowledge, it may not perfectly serve the purposes of the present study since there is a greater chance that students may not use the target multi-word verbs in their essay.

The second part of the test is the sentence completion task. As displayed in Figure 8, the students were asked to complete a sentence with the provided verb with any other word they thought it was necessary and define the meaning of the combinations they fill in. The given sentences were selected and adapted from English corpora embedded in an online concordancer, the Compleat Lextutor version 6.5, which was developed by Tom Cobb in 1997. The program is freely available online at website [http://www.lexutor.ca/concordancers/concord\\_e.html](http://www.lexutor.ca/concordancers/concord_e.html).

For each test item, only a stand-alone verb was provided for students to examine whether they truly realized that the verb needs to be followed by a specific preposition. Since this test task attempted to reveal their knowledge of multi-word verbs or their ability to select the correct preposition for the provided verb, not the knowledge of other grammatical features, the verbs provided in parentheses were in the correct forms which did not need any changes due to a grammatical rule. Moreover, students were asked to define the meaning of the verb in the Thai language in order to ensure that students' correct uses of prepositions were not from guessing. Also, their translations would help the data analysis which was dealing with the interlingual transfer.

#### Part II: Sentence Completion Test

**Directions:** The given verbs in brackets are grammatically correct, but something in sentences is missing. Use the given verb and other word(s) you feel are necessary to complete the sentences in the first blank. Then, define or give the meaning of the word(s) you filled in the Thai language in the second blank.

คำสั่ง: คำกริยาในวงเล็บถูกต้องตามหลักไวยากรณ์แล้ว แต่ยังไม่ถูกต้องที่สุด จงใช้คำกริยาที่ให้ไว้ในวงเล็บและคำอื่นๆ ที่จำเป็นมาเติมลงในช่องว่างด้านหน้าเพื่อทำให้ประโยคถูกต้องตามหลักไวยากรณ์ที่สุด และแปลความหมายของคำกริยาที่เติมลงไปนั้นลงในช่องว่างถัดมาเป็นภาษาไทย

1. Use: Most of one-parent families \_\_\_\_\_ (consist) a  
mother trying to cope without a partner.

Meaning: หมายถึง \_\_\_\_\_

Figure 8 The format of the sentence completion part



## **1.2 Test procedures**

The two groups of students were tested separately in two different occasions due to their different learning schedules. The test session lasted two hours in a usual classroom setting. Sitting separately, the participants were given the sentence building test papers first. Then, the researcher explained the directions, the structure and the format of test, and informed the provided time of the test. Student participants were requested to finish the sentence building test papers before they were given the sentence completion test papers.

## **2. Scoring instruments**

The test of multi-word verbs was scored by an answer key for the sentence completion task and a scoring rubric for the sentence building task.

### **2.1 The answer key for the sentence completion task**

The scores for the sentence completion task were given based on the answer key (See Appendix B) which lists the correct prepositions needed to complete the given verbs in sentences and the correct and acceptable meanings in the Thai language.

As the answers of prepositions filled in the blanks had fixed single answers, the scoring of this part was not sophisticated. The learners would score 1 for the correct preposition use and 0 for the incorrect preposition use; meanwhile, other grammatical accuracy was not taken into consideration. After the scores were given, these numbers were later tabulated for data analysis.

Meanwhile, the scoring of the meaning part was based on the definitions derived from a bilingual English – Thai dictionary. The online dictionary [www.dict.longdo.com](http://www.dict.longdo.com) was used to provide the main answer key for scoring of this part because it also provides the definition of a verb + preposition collocation as a multi-word unit in the Thai language, not as separate word items. Also, the students' answers were further considered by the research author whether some of their answers were acceptable and appropriate for the given context. If the students' answers on meanings are correct and acceptable based on the answer key, they would equally score 1. If not, they would score 0.

## 2.2 The scoring rubric for the sentence building part

Since the sentence building task requested the students to write a sentence for a given verb to measure their collocational knowledge as well as semantic knowledge and grammatical knowledge, it may be inappropriate for simple scoring such as giving 1 or 0 as correct and incorrect. Hence, there was a need for the development of a rubric with the validity and reliability.

From literature review, there have been a very few instruments which were developed to measure a gain in the productive knowledge of a selected target word through a sentence building task. One of a few was the Vocabulary Knowledge Scale (VKS) proposed by Paribakht and Wesche (1996) which was attempted to measure “the knowledge of particular vocabulary items acquired by learners as a result of encountering the words in texts” (Read and Chapelle, 2001, p. 30). The scale consists of two sub-scales: A self-report scale for measuring the vocabulary familiarity of a test-taker and a sentence rating scale. The current study adapted two scoring categories from the latter scale. As seen in Table 11, the left column lists the original scoring categories, while the right column lists the adapted scoring categories which were used for the pilot study.

**Table 11 The comparison of the vocabulary knowledge scale scoring rubric and the present study's rubric**

The scoring rubric of VKS		The adapted scoring rubric	
Scores	Meaning of scores	Scores	Meaning of scores
1	The word is not familiar at all.	0	The verb is <u>not</u> used with
2	The word is familiar, but its meaning is not known.		meaning appropriateness or is not used as a verb.
3	A correct synonym or translation is given.		
4	The word is used with semantic appropriateness in a sentence.	1	The verb is used with meaning appropriateness in a sentence.
5	The word is used with semantic appropriateness and grammatical accuracy in a sentence.	2	The verb is used with meaning appropriateness and grammatical accuracy in a sentence.



As seen in Table 11, the scores from 1 to 3 were excluded from the rubric for scoring written sentences as the criteria, word familiarity (score 1) and semantic knowledge of individual words (score 2 and 3), were specifically measured by the sentence completion task. Whereas, the criteria for score 4 and 5 were adapted as they met the present study's purpose to reveal what the research question 2 asked: how do these learners use English multi-word verbs in their written sentences? If the students could use the verb with the target preposition with semantic appropriateness (the context of their sentence serves the meaning of the target verb and preposition), they would score 1. If they could use it with semantic appropriateness and a grammatical accuracy in a sentence, they would score 2. However, they would score 0 if the given verb in their sentence did not function as a verb, or if their sentence lacked semantic appropriateness (even if the verb was used with the target preposition with a grammatical accuracy). Figure 9 shows how the three scores were applied into the rubric for scoring students' written sentences. The upper table indicates the scores and their meanings. The lower table lists the test item number (column 1), the target verb (column 2), the student code who wrote the sentence (column 3), the sentence (column 4), and the three scores (column 5, 6, 7).

0	The verb is <u>not</u> used with meaning appropriateness or is not used as a verb.					
1	The verb is used with meaning appropriateness.					
2	The verb is used with meaning appropriateness and grammatical accuracy.					

Item No.	Verb	Stu. No.	Written sentences	Scores		
				0	1	2
1	consist	1	The subjects consisted of 20 Thai students.			✓
		2	This sentence consist of two verbs		✓	
		3	The building consists of 5 rooms.			✓

**Figure 9 A rubric for scoring written sentences**

Two native speakers of English, one American English speaker and one British English speaker were requested to be the scorers of students' sentences. Then, the average score of each sentence is calculated. To ensure the validity and the reliability of the rubric, the pilot study was conducted, and the scorers were asked to score students' sentences from the pilot study which would be elaborated in details later in this chapter.

### **3. The interviews**

#### **3.1 Interview development**

In general, an interview can enhance the depth of the study and to obtain more complete data (Isaac and Michael, 1982). Especially, it is an effective instrument of a research study which aims at understanding participants' perceptions and revealing "how participants come to attach certain meanings to phenomena or events" (Berg, 1995, p. 35). Thus, after the test was administered, one-on-one interviews were set to provide supplement data for the current study to answer research questions 3 and 4: the sources of errors in their use of English multi-word verbs and the perceived difficulties of using this group of verbs. The interviews were conducted in the Thai language to encourage students' responses and reduce the effects of language barrier.

In order to answer two research questions, the interview consisted of two parts: a retrospective interview and a semi-structured interview. The first part was a retrospective interview which is a post-event verbal report which helps reveal participants' cognitive process and thoughts during task completion (Phakiti, 2014). This interview method is more advantageous than thinking aloud protocol which is concurrently conducted with a task in that it does not interrupt a participant's flow of thought on task. However, with this interview method, interviewees may not reflect their exact cognitive activities during task completion but rather reconstruct their thoughts which they may not be aware of on task. To gather the most accurate data as possible, Phakiti advised that the interview session must be conducted immediately after the task.

The retrospective interview was used to reveal sources of errors in using the multi-word verbs. Immediately after the test session, three volunteers from each group of participants were individually interviewed to examine the thoughts and reasons behind their answers. The interview focused on the completion of the blank-filling test. The researcher-interviewer went through each test item. If the answer (the preposition)



of some test item was incorrect, the interviewer asked why the interviewee decided to use the preposition with the given verb as they did.

After the retrospective interview, a semi-structured interview was conducted to reveal students' perceived difficulties in using English multi-word verbs. Also known as a semi-standardized interview, this type of interview is guided by "predetermined questions and/ or special topics" (Berg, 1995, p. 33). According to Arksey and Knight (1999, p. 5), in contrary to a structured interview of which detailed questions are initiated before the session, "semi-structured interviewing starts with broad and more general questions or topics." Instead of following the interview schedule strictly, the interviewer acts as a guide asking close and open questions under topics and sub-topics prepared. Based on the interviewer's judgment, improvisation and digression are allowed in order to draw out the most complete stories from the interviewee (Arksey and Knight, 1999; Berg, 1995).

To elicit learners' difficulties, the following topics and sub-topics of the semi-structured interview were plotted based on literature.

Interview Topics and Sub-topics	
1. Learners' conception of multi-word verbs	
1.1 Learners' conception of different types of multi-word verbs: phrasal verbs and prepositional verbs	
2. Learners' familiarity in multi-word verbs appearing in the test	
2.1 Examples of multi-word verbs known by the learners	
3. Learners' exposures to multi-word verbs	
3.1 Means of exposures	
3.2 The extent of exposures	
4. Learners' difficulties in using multi-word verbs	
4.1 Use of multi-word verbs in everyday life	
4.2 Use of multi-word verbs in formal instruction	
4.3 General difficulties in using multi-word verbs	
4.4 Conceptions of the difficulties of using multi-word verbs compared to single-word verbs	

Figure 10 The semi-structured interview: Topics and sub-topics

The interview was led by questions which attempted to elicit learners' understandings and conception about multi-word verbs, followed by familiarity in and exposures to multi-word verbs in order to ensure if the students had known about the subject matter we were going to talk about. After that, they were asked to narrate their use of multi-word verbs in everyday life and in formal instruction, followed by what they saw as difficulties in using multi-word verbs and what they thought about using multi-word verbs compared to single-word verbs.

### **3.2 Interviewing procedures**

Three students from each group were selected based on their voluntary. Before the interview, the interviewer took a few minutes for a small talk to establish a comfortable relationship and rapport (McMillan and Schumacher, 1997). Then, the interviewer introduced herself and informed the interview purposes, the format of the interview, approximate interview timing (10-15 minutes), and means to contact the interviewer. The terms of confidentiality that the interviewee's identity would be reported under a pseudonym was emphasized. Then, the volunteer was asked to fill a form of participation agreement (see Appendix A). The interview was audio-recorded if the volunteer agreed to do. If not, his or her answers would be noted instead. The audio file would be sent via e-mail depending on his or her wish. Finally, the interviewer asked if the interviewee had any questions before moving to open- and closed- questions related to the prepared topics and sub-topics.

## **The Validity of Research Instruments**

### **1. Quantitative validation**

For a quantitative research design, validity means that "the scores received from participants are meaningful indicators of the construct being measured" (Creswell and Plano, 2011, p. 210), or "the degree to which the test is capable of achieving certain aims" (Isaac and Michael, 1981, p. 120). In other words, for a test to be valid, it needs to measure what the researcher says it measures (Sapsford, 2007). Sapsford (2007, p. 107). gave a practical means to increase test validity by "careful attention to question phrasing and ordering, to minimize the likelihood that the answer is affected by factors other than those which we are trying to measure." Meanwhile, Creswell and Plano (2011) suggested that other external sources including statistical procedures or external experts



could foster the validity. The present study relied on external experts for the validation of the test instrument. Prior to the pilot study, the test of multi-word verbs were validated by an examination by three experts so as to ensure that the test was reasonable and appropriate for an assessment of students' ability to use English multi-word verb. These experts were three Thai lecturers and two native speakers of English (see Appendix C). All of them had experienced teaching English majors in university levels, and the Thai lecturers were teaching students in graduate levels. They were asked to determine the face validity – judging by how a measure looks (Sapsford, 2007) of the test whether the test could serve the test's purposes and provide recommendations on the test. Whereas, the two native speakers of English examined the language used in the test and were asked to answer the sentence completion task in order to recheck the accuracy of the answer key.

The test papers as well as a test validation instrument (see Appendices A and C) which informed the purposes of the test and the evaluation forms were given. Overall, the examination by three experts indicated that: 1) the directions of the test were clearly written and easy to follow, 2) the directions could help elicit the responses for the purposes of the test, and 3) the test format was appropriate. Meanwhile, other comments and recommendations were:

1.1 The blanks given for the sentence building task may not be enough for long sentences.

1.2 The composition of 30 sentences may cause respondents' boredom and make them give up on the task.

1.3 Other verb items which are not followed by a preposition may be added for distracting respondents from guessing what kind of words are needed in the blanks after they have answered the first test items correctly.

The test was revised in response to some recommendations if possible and appropriate. Especially, the blanks of the sentence building task were widened, and the sentences in the sentence completion task were revised based on two native English speakers' suggestions. However, the inclusion of more verbs was not possible because with more verbs, the sentence building task might cause more workload and boredom.

## 2. Qualitative validation

Qualitative validity focuses on the credibility and accuracy of the account provided by the researcher and participants (Creswell and Plano, 2011). Despite noting that qualitative validation does not involve a simple and straightforward process like quantitative validation, Creswell and Plano (2011) suggested some general strategies to foster qualitative validity including member-checking, triangulation, disconfirming evidence, and/or external auditors. For this study, the validity was fostered by triangulation as well as member-checking allowance.

*Triangulation* focuses on the collection of various data sources and individuals. The present study collected data from three interviewees from two groups of study, and the interview data were also used to explain some quantitative results.

*Member-checking* refers to interviewees' examination of their own accounts. For this study, member-checking is optional. Although audio-recording is a method which did not allow the distortion of raw data, audio-scripts were also sent to some interviewees who needed a recheck of their account. For the interviewees who did not wish an audio-record of their response, their noted answers were read aloud for them both during and after interviewing to check the accuracy of their answers.

## The Reliability of the Instruments

### 1. Quantitative reliability

Test reliability refers to "the accuracy (consistency and stability) of measurement by a test" (Isaac and Michael, 1981, p. 125). It measures "the extent to which the results are similar over different forms of the same instrument or occasions of data collection" (McMillan and Schumacher, 1997, p. 178). The validity and reliability of an instrument are significantly connected as an instrument cannot be valid unless the resulting scores are reliable (Alasuutari, Bickman and Brannen, 2008). Hence, the higher reliability results in the higher validity (Isaac and Michael, 1981). According to Isaac and Michael (1981, pp. 123-124), test reliability can be tested through several means, such as test-retest, alternate-forms (using two parallel forms of the same test), and split-half (dividing the items of the test independently into two equivalent halves). For this study, the scale reliability was analyzed for their internal consistency or Cronbach's Alpha coefficient.



Cronbach's alpha is a statistical device developed by Cronbach in 1951. According to Alasuutari, Bickman and Brannen (2008, p. 278), the coefficient alpha refers to "the average inter-item correlation, quantifies the internal consistency within a test and is appropriate for multiple-item measures that measure a single common construct." Cronbach's alpha reliability coefficient usually ranges between 0 and 1. An instrument has a greater reliability if the value is close to 1. However, other scale features including a short test length, lower number of questions, and poor relatedness between items could affect the lower value of alpha (Tavakol and Dennick, 2001).

Generally, the acceptable values of alpha range between 0.7 to 0.9 (Tavakol and Dennick, 2001). George and Mallery (2003, p. 231) interprets the alpha values as different qualities of the scale reliability:  $\alpha > 0.9$  = excellent,  $\alpha > 0.8$  = good,  $\alpha > 0.7$  = acceptable,  $\alpha > 0.6$ , questionable,  $\alpha > 0.5$  poor, and  $\alpha < 0.5$  = unacceptable.

For this study, the coefficient alpha was used to reveal the reliability of the scoring results from the test of multi-word verbs in the sentence completion test task (filling prepositions and defining meaning of verb + preposition used) and from the rubric scoring students' written sentences.

According to the scores the students earned from the test of multi-word verbs, determined separately by three types of scores: providing the correct preposition (Type P), providing the correct or acceptable meaning (Type M), and providing both the correct preposition and the correct or acceptable meaning (Type PM). A statistical package was used to reveal the Cronbach's Alpha reliability coefficient for this study. The results showed that the Cronbach's alphas for three types of scores from 30 items including, type P, type M, and type PM were 0.893, 0.837, and 0.866, respectively, which can be interpreted as a good ( $\alpha > 0.8$ ) level of reliability based on George and Mallery (2003).

Meanwhile, the scores from students' sentences from two native speakers of English were calculated to obtain the inter-rater reliability of the sentence-scoring rubric. The Cronbach's alpha coefficient value of the scoring rubric equals 0.893, which can be interpreted as a good ( $\alpha > 0.8$ ) level of reliability based on George and Mallery (2003).

## 2. Qualitative reliability

In contrary to quantitative reliability which can be derived from a numerical calculation, qualitative reliability relies on trustworthiness of the coding (Flick, Kardorff and Steinke, 2004). Prior stages to enhance qualitative reliability of the interviews were using a good-quality audio recorder and transcribing the record (Cresswell, 2013). For the coding reliability, two types of coding reliability include the intercoder and intracoder reliability (Hoonard, 2008). While intercoder reliability is processed by independent coding of the same materials by two coders, intracoder reliability is processed by the researcher's consistent manner in coding. While the former is particularly useful for content analysis, the latter contributes to analyses of verbal data such as interview and focus group transcripts.

As qualitative data analyses are likely to fluctuate across different occasions due to various factors such as carefulness, mood, noise, and fatigue (Chen and Krauss, 2004), an intracoder data analysis was employed to foster the reliability of the interview results. The first analysis and the final analysis were conducted with a two-week interval. This method helped decrease inconsistency which might arise from data analysis and increase the intracoder reliability.

### Data Analysis

Table 12 provides an overview for the current study by drawing the relationship between research questions, instruments used for each research questions, as well as data analysis for the research instruments.

**Table 12 Research questions, instruments, data analysis**

	Research questions	Research Instruments	Data analysis
1.	To what extent are English majors in two undergraduate levels (first-year and third-year students) able to use English multi-word verbs?	1. Test of English multi-word verbs (the sentence completion task) 2. The answer key	1. Quantitative data analysis (1) students' scores from the test (Mean, Standard Deviation, Frequency, Percentage)



Table 12 (cont.)

Research questions	Research Instruments	Data analysis
1.1 To what extent do first-year students majoring in English score from the test of multi-word verbs?		(2) Independent-samples t-test
1.2 To what extent do third-year students majoring in English score from the test of multi-word verbs?		
1.3 What are the differences between the scores of the first-year students and those of the fourth-year students, majoring in English?		
2. How do these learners use English multi-word verbs in their written sentences?	1. Test of English multi-word verbs (the sentence building task)	1. Quantitative data analysis
2.1 To what extent do they use the given verbs with the target prepositions in their written sentences?	2. the rubric for scoring written sentences	(1) Frequency, Percentage (2 ) Chi-square test
2.2 If the English majors use the given verbs with the target prepositions, to what extent do they score from their written sentences?		
3. What are the sources of errors in their use of English multi-word verbs?	1. Test of ability to use multi-word verbs in academic English (the blank filling part)	1. Error analysis: quantitative and qualitative data analyses
3.1 What are students' variations of prepositions used with the target verbs?	2. a retrospective interview	2. Qualitative data analysis (Coding)

Table 12 (cont.)

Research questions	Research Instruments	Data analysis
3.2 Are there any variations of verb + preposition collocations influenced by the interlingual transfer?		
3.3 Are there any variations of verb + preposition collocations influenced by the intralingual transfer?		
4. What are the difficulties to use multi-word verbs perceived by the first-year students and the third-year students, majoring in English?	1. interview topics	Qualitative data analysis (Coding)

### 1. Data analysis for research question 1

1.1 To what extent are English majors in two undergraduate levels (first-year and third-year students) able to use English multi-word verbs?

1.1.1 To what extent do first-year students majoring in English score from the test of multi-word verbs?

1.1.2 To what extent do third-year students majoring in English score from the test of multi-word verbs?

1.1.3 What are the differences between the scores of the first-year students and those of the third-year students, majoring in English?

Data analysis for the research question 1 was conducted quantitatively with various statistical devices employed. The scores from the test of multi-word verbs in academic English were analyzed to measure students' ability to use the target verbs with the target prepositions. The scores of overall students' ability to use the verbs would be obtained from part 2 – the sentence completion test. There were three types of scores in one item: using the correct preposition (type P), defining a correct/acceptable



meaning (type M), and using the correct preposition and defining a correct/acceptable meaning (type PM). The score for one item in every type was ranged from 0 to 1, which respectively referred to a correct and an incorrect response. After individual students' scores were obtained, they were recorded in Microsoft Excel as exemplified in Table 13.

**Table 13 Score recording table for the test of multi-word verbs in academic English**

Item No. Student No.	1.			2.			3.			4.			5.		
	P	M	PM	P	M	PM	P	M	PM	P	M	PM	P	M	PM
1.	1	1	1												
2.	1	0	0												
3.	.	.	.												
Total	.	.	.												
Percentage	.	.	.												
$\bar{X}$	.	.	.												
S.D.	.	.	.												

As illustrated in Table 13, the vertical column lists students' numbers, and the horizontal column lists item numbers from 1 to 30. One item column is divided into P, M, and PM, which represent three categories of the scores each student received from the sentence completion test. This table can conclude the extent to which students are able to use each target multi-word verb in three dimensions including: an ability to select the correct preposition for the given verb and a context (P), an ability to understand the meaning of the verb (M), and the ability to use multi-word verbs with the correct preposition and show an understanding of meaning (PM). The scores for P and M columns were based on the answer key. For the PM column, the scores were obtained from the scores for P and M together. To get 1, a student needed to answer both P and M correctly. That is, students needed to fill in the correct preposition and to correctly define the meaning of the verb and preposition they filled in. If one of P or M was incorrect, they would score 0.

The scores for each item in three categories of the students within the same university level were summed up separately to answer the research question 1.1 and 1.2, which investigated the extent to which students in two university levels scored from the test classified by three types of scores. The answers were reported by

descriptive statistics calculated by *Microsoft Excel 2007*. The statistical devices were percentages (%), the means ( $\bar{X}$ ) and the standard deviation (*SD*). The numerical results were ranked in order, from the highest to the lowest score, in order to explore the level of difficulty of the target multi-word verbs for the two groups of students.

To answer the research question 1.3, "*What are the differences between the scores of the first-year students and those of the third-year students, majoring in English?*," the statistical device *independent samples t-test* was used to compare the average scores from the test between two groups of students. *Independent samples t-test* is a statistical comparison which compares the average scores of the same variable between two unrelated groups (McMillan and Schumacher, 1997). For the present study, the independent variables include first-year English majors and third year-English majors. The dependent variables were the three categories of scores (P, M, and PM) they received from the test of multi-word verbs. The calculation reported whether the students from two groups scored differently and if the difference was statistically significant at  $p < 0.05$ . The results indirectly revealed students' development of multi-word verb knowledge over a period of time (2 years) in pursuing education in university levels.

## **2. Data analysis for research question 2**

2.1 How do these learners use English multi-word verbs in their written sentences?

2.1.1 To what extent do they use the given verbs with the target prepositions in their written sentences?

2.1.2 If the English majors use the given verbs with the target prepositions, to what extent do they score from their written sentences?

Data analysis for the research question 2 was conducted quantitatively with statistical devices including the frequency (*f*) and the percentage (%). For research question 2, the sentence-building part from the test of multi-word verbs was analyzed to explore the extent to which the students used the given verbs with target prepositions and how well they used them in their written sentences. To analyze data for question 2.1, the number of sentences of which the given verb is used with the target preposition (1), the number of sentences of which the given verb is not used with the target



preposition or without a preposition (2), and the number of nothing written (3) were counted and tabulated in Table 14 for data analysis.

**Table 14** Table recording the frequencies of three types of the students' written responses for the sentence building test

Item No.	MWV	(1) Verb with target preposition		(2) verb with non-target preposition/ no preposition		(3) No written responses	
		<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
1.	consist of						
2.	contribute to						

The Chi-square test was applied to test the differences in the frequencies of three types of responses to individual verb items of two groups of students. The  $\chi^2$  values obtained indicated whether the responses of two groups of students to individual multi-word verbs were different at a statistical significant level of  $p < 0.05$  or not.

To analyze data for the question 2.2, the scoring rubric (see Figure 9) was used to determine to what extent the students could score from using the target multi-word verbs in their sentences. The scores range from 0 to 2. Score 0 was given for a sentence of which the verb was not used with meaning appropriateness or was not used as a verb. Score 1 was given for a sentence of which the verb was used with meaning appropriateness (the raters could get the meaning form the sentence). Score 2 was given for a sentence of which the verb was used with meaning appropriateness and grammatical accuracy.

The sentences were recorded into four separate tables including:

- 1) first-year students' written sentences + using the verb with the target preposition,
- 2) first-year students' written sentences + *not* using the verb with the target preposition,
- 3) third-year students' written sentences + using the verb with the target preposition,
- and 4) third-year students' written sentences + *not* using the verb with the target preposition.

The sentences were scored by two native speakers of English, and the average score for each sentence was calculated. The sum of average scores for all sentences written for each verb item in (1) and (3) indicated an overall ability to use that multi-word verb in written sentences of a group of students.

**Table 15** Two raters' scores for written sentences tabulated for statistical analysis

Item No.	Verb	Student No.	Written sentences	Rater		
				A	B	$\bar{X}$
1.	Consist of	5	"The complete sentence consist Subject+Verb +Object." Teacher who say.	1	1	1
		6	My father consists things by himself.	0	1	0.5
		9	One week consits Mondy, Tuesday, Wednesday, Thursday, Friday, Saturday and Sunday.	1	1	1
		10	Our classroom consist tables chairs, computer, air condition, and loud birds.	1	1	1
TOTAL						3.5

As exemplified in Table 15, four sentences written for the verb *consist of* by third-year English majors were scored by two raters, rater A and rater B. The average scores ( $\bar{X}$ ) for each sentence were calculated and summed up to indicate an overall ability to use the verb *consist of* in written sentences of third-year English majors. Therefore, the scores could get higher if the number of sentences written using a given verb with the target preposition was higher and if these sentences were written with grammatical accuracy and meaning appropriateness.

### 3. Data analysis for research question 3

#### 3.1 What are the sources of errors in their use of English multi-word verbs?

##### 3.1.1 What are students' variations of prepositions used with the target verbs?

##### 3.1.2 Are there any variations of verb + preposition collocations influenced by the interlingual transfer?



3.1.3 Are there any variations of verb + preposition collocations influenced by the intralingual transfer?

For the research question 3, students' responses to the sentence completion task of the test of multi-word verbs and the interview data were used to identify the sources of errors based on the classification of sources of collocational errors which Hong, et al. (2011) adapted from Richards (1974) and Tarone (1981) as displayed in Table 16. The detailed descriptions of these strategies as well as examples can be seen in Chapter 2 under the selection *sources of collocational errors*.

**Table 16 Classification of sources of collocational errors**

Types of Strategies	Major categorizations of sources of errors	Sub-categorizations of sources of errors
Cognitive strategies	Interlingual Transfer	a) L1 transliteration/L1 literal translation b) Language switch
	Intralingual Transfer	a) False concept hypothesized b) Overgeneralization c) Ignorance of rule restrictions
Communicative strategies	Paraphrase	a) Approximation - Semantic affinity - Morphological and Phonological affinities

**Source:** Hong, et al.'s, 2011, adapted version from Richards, 1974; Tarone, 1981

The error analysis started from finding the deviate use of a multi-word verb which was similar across different students within a group. The deviate use of each multi-word verb (focusing on the position of a preposition which follows the verb) from each group of students were recorded for their frequency (*f*) of occurrences as exemplified in Table 17 and then analyzed for their sources of errors.

Table 17 Group deviate use of preposition

Item	Multi-word verbs	Incorrect use of Multi-word verbs			
		1 <sup>st</sup> -yr students	<i>f</i>	3 <sup>rd</sup> -yr students	<i>f</i>
1.	Consist of	consist	20	consist	16
		consist with	13	Consist with	6

Then, error analysis of the deviate use of multi-word verbs started from examining interlingual transfers first as it is usually reported as one of the most important sources of collocational errors. As seen in the Table 18, the analysis was based on the Thai translations the students gave in the sentence completion test task. Recorded along with the non-target prepositions they provided for the test (column 2), students' translations (column 5) were compared by the Thai translations of those prepositions (column 4) based on *Google Translate*. *Google Translate* (URL: <https://translate.google.com>) is a freely-available online translator, which is not only popularly used worldwide, but is also evaluated as the best free machine translator as by Hampshire and Salvia (2010). It should be noted that even though *Google Translate* might be inaccurate in translating sentences, the translations of prepositions in this study were single-word translations which did not require a complex interpretation of multiple words at a time. If one of the Thai translations of a non-target preposition appeared as a part of students' translations (as underlined in Table 18), the present study noted an occurrence of the interlingual transfer for that variation.



**Table 18 Error analysis of multi-word verbs caused by interlingual transfer**

Verbs (+ target P*'s)	Non- target P's	<i>f</i> (1 <sup>st</sup> yr:3 <sup>rd</sup> yr)	GG** translations of other P's	Students' translations of Verbs (+ other P's)
link (to)	with	18 (6:12)***	กับ/ด้วย/โดย/ตาม/ ต่อ/ในส่วน/พร้อม ด้วย/เข้ากับ	เชื่อมโยงกับ/ติดกันกับ/เชื่อมต่อ กับ

\*P refers to preposition.

\*\* GG refers to Google Translate.

\*\*\* were the frequencies of a variation made by the first-year students per the third-year students.

For the cases which were not caused by interlingual transfer, the study relied on Hong, et al.'s (2011) descriptions of sources of collocational errors for error analysis. Students' responses from the retrospective interview were also analyzed to identify the sources of errors.

#### 4. Data analysis for research question 4

4.1 What are the difficulties to use multi-word verbs perceived by the first-year students and the third-year students, majoring in English?

A semi-structured interview which was conducted along with a retrospective interview revealed students' perceived difficulties in using the target multi-word verbs. The interview was audio-recorded and transcribed for data analysis. The phrases, expression, or ideas found in students' answers in common were grouped into themes or codes (Cresswell, 2003, 2007; Kvale, 2007). As qualitative data analyses are likely fluctuate across different occasions, to foster the reliability of the results for this research questions, an intracoder data analysis, which involves two occasions of analyses of the same set of data by one researcher, was employed.

### Pilot Study

A pilot study, or a feasibility study, is a pre-test or a tryout of a research instrument (Baker, 1994). According to Isaac and Michael (1981, pp. 34-35), piloting before the main study is essential due to numerous advantages as follows.

1. Preliminary testing of hypothesis
2. Revealing unforeseen ideas, approaches, clues prior to the main study
3. Checking of the planned statistical and analytical procedures
4. Reducing treatment errors
5. Saving time and monetary resources
6. Getting feedback leading to important improvements in the main study
7. Trying out alternative measures for the main study

For the present study, the pilot study aimed at determining the reliability of the test instrument and the scoring rubric, pretesting the interview, and identifying unforeseen problems prior to the major study. The study was conducted in March of the year 2015 with English majors who were not the target subjects in this study but in the same levels. According to Isaac and Michael's (1981, p. 96) remarks on the sample size of pilot study, "samples with *N*'s between 10 and 30" are practical due to "a quick, convenient size with which to work" and "easy multipliers and divisors, facilitating calculations." Especially, this size is "large enough to test the null hypothesis, yet small enough to overlook weak treatment effects." Since the present pilot study was conducted in students in the same levels as the target participants of the main study, the researcher needed to find students from another university as participants. As the unfamiliarity with the students might result in their reluctance to volunteer, monetary incentives had to be given to encourage students to participate. Due to this limitation, the smallest yet acceptable sample size of ten students was the choice of the pilot study.

A formal letter asking for students' participation was sent to the Faculty of Humanities and Social Sciences at Pibulsongkram Rajabhat University, ten English majors in Bachelor's degree agreed to participate in the pilot study. The test was conducted at a classroom setting at the students' university for their convenience with two occasions: one with five first-year students and the other with five third-year students. One student from each group agreed to volunteer further in the pretest of the interview.



The test procedures were conducted steps by steps like those of the main study. Before starting the test, the researcher introduced herself, informed the purposes of the study, elaborated the directions in the Thai language, informed the length of the test, and asked if students had some questions. The students were given the sentence building test papers first. After finishing them, they were given the sentence completion test papers. The interview was conducted and recorded right after the test. After the data were obtained, the reliability of the test and the scoring rubric were calculated, and the interviews were transcribed for analyzing for the effectiveness and appropriateness of questions used.

### **1. The reliability of the test instrument**

The Cronbach's Alpha coefficient for the sentence completion task (preposition filling) equaled 0.853 ( $N = 10$ ), indicating that the scoring results' reliability in this part was good (George and Mallery, 2003).

The Cronbach's Alpha coefficient for the sentence completion task (defining meaning) equaled 0.804 ( $N = 10$ ), indicating that the scoring results' reliability was good (George and Mallery, 2003).

### **2. The validity and reliability of the scoring rubric**

After the data from the test in the sentence building part were obtained, the rubric for scoring written sentences was pretested by the use of two native speakers of English (a British native and an American native) who were English lecturers at Naresuan University. Before scoring, the raters were prepared based on some procedures proposed by Bachman and Palmer (2001, p. 222) as follows.

2.1 Read and discuss scales together.

2.2 Review language samples which have been previously rated by expert raters and discuss the ratings given.

2.3 Practice rating a different set of language samples. Then compare the ratings. Discuss the ratings and how the criteria were applied.

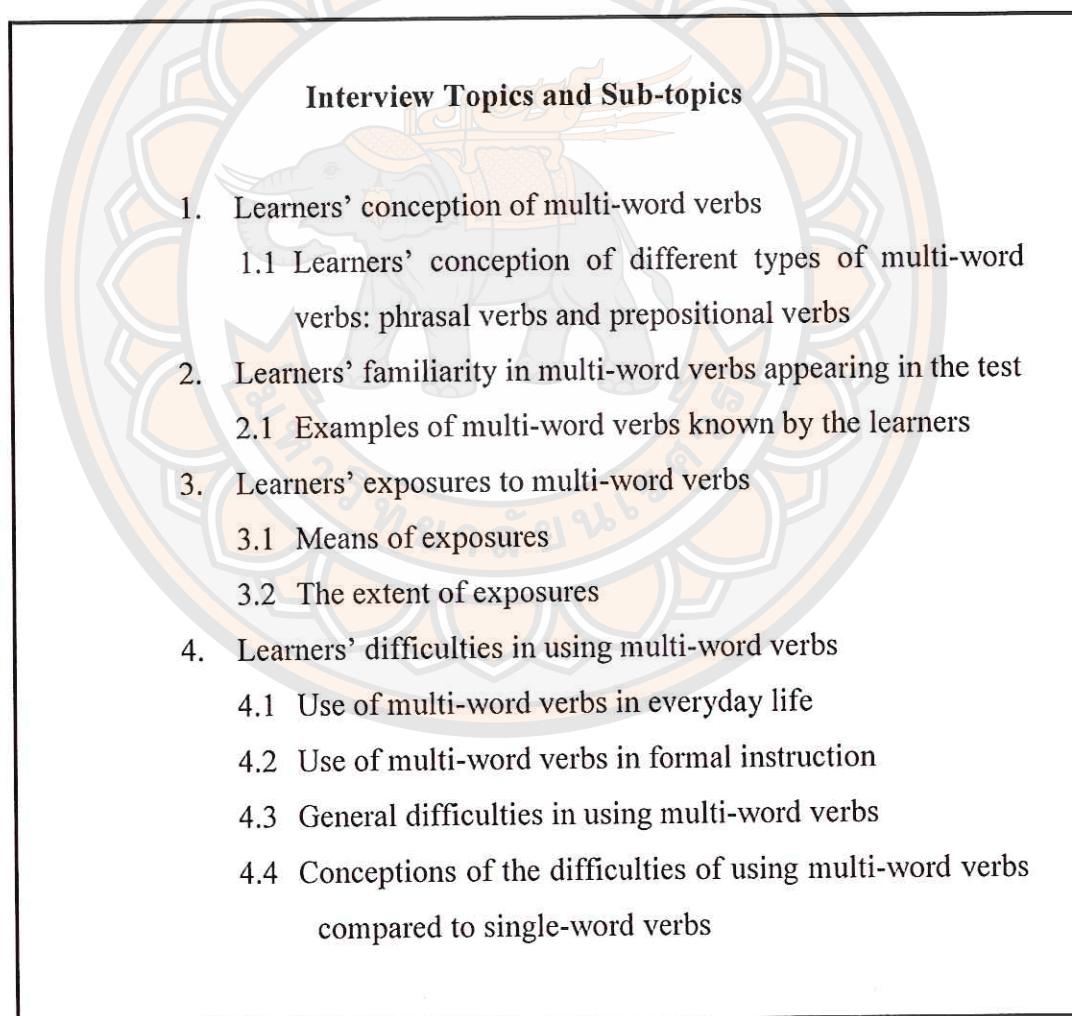
2.4 Rate additional language samples and discuss.

All written sentences were tabulated in the rubric (see Appendix B). Every written sentence was scored by the two raters. Their scores for all sentences were then calculated to identify the inter-rater reliability, which could be also obtained from Cronbach's alpha calculation. The calculation of the inter-rater reliability equaled 0.723

( $N = 2$ ), indicating that the scoring results from the rubric were in an acceptable level of reliability (George and Mallery, 2003).

### 3. Interview pretest

The interview consisted of two parts for two research questions. A retrospective interview was conducted to reveal the sources of errors in their use of English multi-word verbs, while a semi-structured interview was conducted to reveal the perceived difficulties in using multi-word verbs. In the pilot study, the interview topics and sub-topics were pretested to check whether they could reveal the learners' perceived difficulties in using English multi-word verbs.



**Figure 11 The semi-structured interview: Topics and sub-topics**



Two students (one first-year student and one third-year student) agreed to participate in the one-on-one interview after finishing the test and agreed to a record of their answers. Based on the interview schedule, the interview data revealed that the extent to which each student shared their points of views on the difficulties in the use of multi-word verbs were based on their own knowledge about the provided multi-word verbs or other phrasal verbs. The lengths of interviews with these two students showed that the student in the first-year level responded very little to the open- and closed-questions based on the interview topics.

The interview lengths with one first-year student and one third-year student were 4.43 and 7.53 minutes, respectively, which were shorter than the expected length of 10 to 15 minutes. The shorter lengths of the interviews were due to students' limited knowledge about multi-word verbs or phrasal verbs and the length of the retrospective interview. The first-year participant had a shorter interview as he had less knowledge about the provided verbs and the other verb + preposition items as he did not know if the verbs in the test had special characteristics, nor could he recall what multi-word verbs or phrasal verbs are. The lengths of interviews also depended on the answers the students responded to the test of multi-word verbs. If the students' answers for preposition fillings in the sentence completion test consisted of more correct items, the retrospective interview was shorter as it attempts to ask about incorrect prepositions used. Also, if a student responded by filling only the provided verbs without prepositions identically across all items or filling nothing in the blanks, the retrospective interview would be shorter because these kinds of responses showed that this student initially lacked the knowledge of the provided verbs. The latter case occurred with the first-year participant who did not provide any prepositions for the given verbs.

#### **4. Problems found prior to the major study**

Important limitations found in the pilot study were explored before the major study was conducted. The following discovered weaknesses led to major adaptations as discussed below.

4.1 Some sentences provided in the sentence completion test consisted of difficult vocabulary; thus, the researcher replaced them with an easier synonym, or changed the whole sentences based on a native-English speaker expert's advice.

4.2 For the rubric for scoring students' written sentences, the meaning of scores 0 to 2 were unclear to two native-English speakers. Therefore, they were elaborated for the main study as shown in Table 19.

4.3 The interviewee had not known about the term "multi-word word," so there was a need to use a more familiar term "phrasal verb" in the interview.

4.4 There were some interviewer's interferences during the interviews including leaving short time waiting for the interviewee to respond and guiding the interviewee's responses.

**Table 19 An adaptation of scores' meanings**

Score	Pilot study	Main Study
0	The verb is <u>not</u> used with meaning appropriateness or is not used as a verb.	The verb is <u>not</u> used with meaning appropriateness or is not used as a verb.
1	The verb is used with meaning appropriateness.	The verb is used with meaning appropriateness. (Correct use of verbs in terms of meaning, <i>with</i> some grammatical issues in the sentence.)
2	The verb is used with meaning appropriateness and grammatical accuracy.	The verb is used with meaning appropriateness and grammatical accuracy. (Correct use of verbs in terms of meaning, <i>without</i> some grammatical issues in the sentence. Incorrect spellings and punctuation are allowed.)

In summary, the present study was designed to provide an insight into various dimensions of university students' use of multi-word verbs used in academic English. Through quantitative and qualitative research methods, the study attempted to understand how multi-word verbs were used by Thai EFL university students. The next chapter discusses the results of the current study from the data collection methods and instruments as portrayed in this chapter.



## CHAPTER IV

### RESULTS

This chapter reported the results of the present study which aimed at investigating Thai university learners' use of English multi-word verbs in various dimensions. The research findings were reported and sequenced by the order of four research questions as follows.

#### Research findings for Research Question 1

**1. To what extent are English majors in two undergraduate levels (first-year and third-year students) able to use English multi-word verbs?**

1.1 To what extent do first-year students majoring in English score from the test of multi-word verbs?

1.2 To what extent do third-year students majoring in English score from the test of multi-word verbs?

1.3 What are the differences between the scores of the first-year students and those of the third-year students, majoring in English?

To answer the research questions 1.1 and 1.2, descriptive statistical devices including the frequency ( $f$ ), the percentage (%), the mean ( $\bar{X}$ ), and the standard deviation ( $SD$ ) were computed by Microsoft Office Excel 2007. Meanwhile, the independent-sample t-test was conducted to answer the research question 1.3 which aimed at comparing the differences between the scores of first-year English majors and third-year English majors.

**1.1 To what extent do first-year students majoring in English score from the test of multi-word verbs?**

Overall, 52 first-year English majors did not score more than 10 points in average for all three types of scores. That is, they scored 7.38 out of 30 in average ( $SD = 3.71$ ) from type M (providing the correct or acceptable meanings for the multi-word verbs), 2.29 out of 30 in average ( $SD = 2.99$ ) from type P (providing the correct prepositions for the given verbs), and 1.46 out of 30 ( $SD = 2.08$ ) in average from type

PM (providing the correct preposition and meaning). Despite relatively low scores, the results indicated that the first-year English majors were more able to identify the meanings of the provided verbs with the target preposition than to identify the correct preposition. Whereas, there were the least chances in which they were able to receive both types of scores from one test item by providing the correct preposition and correct/acceptable meaning. Table 20 displays a summary of the first-year English majors' average scores from the test of multi-word verbs classified by three types of scores: the correct preposition (P), correct/acceptable meaning (M), correct preposition and meaning (M) ( $N = 52$ ).

**Table 20** Summary of first-year English majors' average scores from the test of multi-word verbs ( $N = 52$ )

	Type of scores	Total scores earned*	$\bar{X}$	$SD$
Test of multi-word verbs (30 items)	P	119	2.29	2.99
	M	364	7.38	3.71
	PM	76	1.46	2.08

\* The total scored earned were counted from the number of the correct responses from all test items answered by 52 students.

The scores for the individual verb items which this group of students obtained were counted and ranked to indicate the extent to which they were able to use the provided multi-word items in three dimensions: the ability to provide the correct preposition for the provided verb (Type P), the correct or acceptable meaning (Type M), and the correct preposition and meaning (Type PM).

#### 1.1.1 Type P

Table 21 lists individual verb items' overall scores which 52 first-year English majors obtained from providing the correct preposition, in rank order. The number of students who could score from one verb item represents the score for



that item obtained by a group. Hence, the total score of one verb item equals 52, which is the number of the first-year English majors.

**Table 21** Summary of first-year English majors' scores in type P (preposition), ranked in order and classified by individual multi-word verb items ( $N = 52$ )

Item	Rank	Multi-word Verbs (MWVs)	Total P scores earned	%	$\bar{X}$	$SD$
7	1	rely on	20	38.46	0.38	0.49
8	2	focus on	16	30.77	0.31	0.47
1	3	consist of	12	23.08	0.23	0.43
3	4	remove from	9	17.31	0.17	0.38
18	5	link to	9	17.31	0.17	0.38
14	6	expose to	7	13.46	0.13	0.34
30	7	release from	6	11.54	0.12	0.32
6	8	participate in	6	11.54	0.12	0.32
10	9	submit to	5	9.62	0.10	0.30
11	10	adapt to	5	9.62	0.10	0.30
20	11	recover from	5	9.62	0.10	0.30
2	12	contribute to	3	5.77	0.06	0.24
9	13	attribute to	3	5.77	0.06	0.24
5	14	concentrate on	2	3.85	0.04	0.19
19	15	conform to	2	3.85	0.04	0.19
22	16	exclude from	2	3.85	0.04	0.19
24	17	restore to	2	3.85	0.04	0.19
13	18	coincide with	1	1.92	0.02	0.14

Table 21 (cont.)

Item	Rank	MWVs	Total P scores earned	%	$\bar{X}$	$SD$
17	19	occur to	1	1.92	0.02	0.14
21	20	sum up	1	1.92	0.02	0.14
23	21	compensate for	1	1.92	0.02	0.14
29	22	file for	1	1.92	0.02	0.14
4	23	derive from	0	0.00	0.00	0.00
12	24	benefit from	0	0.00	0.00	0.00
15	25	transform into	0	0.00	0.00	0.00
16	26	dispose of	0	0.00	0.00	0.00
25	27	reside in	0	0.00	0.00	0.00
26	28	quote as	0	0.00	0.00	0.00
27	29	intervene in	0	0.00	0.00	0.00
28	30	shift to	0	0.00	0.00	0.00

Of the total 52 points, 20 points was the highest score obtained by the first-year English majors from providing the correct preposition *on* for the verb *rely*, while 0 was the lowest score obtained by them from providing an incorrect preposition or nothing for the verb *derive*, *benefit*, *transform*, *dispose*, *reside*, *quote*, *intervene*, and *shift*. After *rely on*, these students scored 16 points from *focus on*, 12 from *consist of*, 9 from *remove from* and *link to*, 7 from *expose to*, 6 from *release from* and *participate in*, 5 from *submit to*, *adapt to* and *recover from*, 3 from *contribute to* and *attribute to*, 2 from *concentrate on*, *conform to*, *exclude from*, and *restore to*, and 1 from *coincide with*, *occur to*, *sum up*, *compensate for*, and *file for*.

The percentages showed that less than 50% of 52 students could score from providing the correct preposition for some verb items. That is, 38.46% ( $\bar{X}$  = 0.38,  $SD$  = 0.49) scored from *rely on*, 30.77% ( $\bar{X}$  = 0.31,  $SD$  = 0.47) scored from *focus on*, and 23.08% ( $\bar{X}$  = 0.23,  $SD$  = 0.43) scored from *consist of*.



Below 20% of students could score from providing the correct preposition for the following verb items. That is, 17.31% ( $\bar{X}$  = 0.17,  $SD$  = 0.38) scored from *remove from* and *link to*, 13.46% ( $\bar{X}$  = 0.13,  $SD$  = 0.34) scored from *expose to*, 11.54% ( $\bar{X}$  = 0.12,  $SD$  = 0.32) scored from *release from* and *participate in*, 9.62% ( $\bar{X}$  = 0.10,  $SD$  = 0.30) scored from *submit to*, *adapt to*, and *recover from*, 5.77% ( $\bar{X}$  = 0.06,  $SD$  = 0.24) scored from *contribute to* and *attribute to*, 3.85% ( $\bar{X}$  = 0.04,  $SD$  = 0.19) scored from *concentrate on*, *conform to*, *exclude from*, and *restore to*, and 1.92% ( $\bar{X}$  = 0.02,  $SD$  = 0.14) scored from *coincide with*, *occur to*, *sum up*, *compensate for*, and *file for*. Meanwhile, the verb items which 0% of students could score from were *derive from*, *benefit from*, *transform into*, *dispose of*, *reside in*, *quote as*, *intervene in*, and *shift to*.

### 1.1.2 Type M

Table 22 lists individual verb items' overall scores, which 52 first-year English majors obtained from providing the correct or acceptable meaning, in rank order.

**Table 22** Summary of first-year English majors' scores in type M (meaning), ranked in order and classified by individual multi-word verb items ( $N = 52$ )

Item	Rank	MWVs	Total M scores earned	%	$\bar{X}$	$SD$
18	1	link to	42	80.77	0.81	0.40
3	2	remove from	37	71.15	0.71	0.46
17	3	occur to	36	69.23	0.69	0.47
15	4	transform into	33	63.46	0.63	0.49
8	5	focus on	26	50.00	0.50	0.50
11	6	adapt to	23	44.23	0.44	0.50
30	7	release from	21	40.38	0.40	0.50

Table 22 (cont.)

Item	Rank	MWVs	Total M	%	$\bar{X}$	SD
			scores earned			
1	8	consist of	20	38.46	0.38	0.49
7	9	rely on	18	34.62	0.35	0.48
5	10	concentrate on	16	30.77	0.31	0.47
13	11	coincide with	15	28.85	0.29	0.46
21	12	sum up	15	28.85	0.29	0.46
6	13	participate in	14	26.92	0.27	0.45
24	14	restore to	12	23.08	0.23	0.43
14	15	expose to	10	19.23	0.19	0.40
20	16	recover from	10	19.23	0.19	0.40
26	17	quote as	8	15.38	0.15	0.36
12	18	benefit from	6	11.54	0.12	0.32
22	19	exclude from	5	9.62	0.10	0.30
2	20	contribute to	4	7.69	0.08	0.27
10	21	submit to	4	7.69	0.08	0.27
23	22	compensate for	3	5.77	0.06	0.24
16	23	dispose of	2	3.85	0.04	0.19
9	24	attribute to	2	3.85	0.04	0.19
25	25	reside in	1	1.92	0.02	0.14
27	26	intervene in	1	1.92	0.02	0.14
4	27	derive from	0	0.00	0.00	0.00
19	28	conform to	0	0.00	0.00	0.00
28	29	shift to	0	0.00	0.00	0.00
29	30	file for	0	0.00	0.00	0.00



Of the total 52 points, 42 points was the highest score obtained by first-year English majors from providing the correct or acceptable meaning for *link to*, while 0 was the lowest score obtained by them from providing an incorrect or unacceptable meaning or nothing for *derive from*, *conform to*, *shift to*, and *file for*. After *link to*, these students scored 37 points from *remove from*, 36 from *occur to*, 33 from *transform into*, 26 from *focus on*, 23 from *adapt to*, 21 from *release from*, 20 from *consist of*, 18 from *rely on*, 16 from *concentrate on*, 15 from *coincide with* and *sum up*, 14 from *participate in*, 12 from *restore to*, 10 from *expose to* and *recover from*, 8 from *quote as*, 6 from *benefit from*, 5 from *exclude from*, 4 from *contribute to* and *submit to*, 3 from *compensate for*, 2 from *attribute to*, and 1 from *reside in* and *intervene in*.

The percentages showed that more than 50% of 52 students could score from providing the correct or acceptable meanings for five verb items. That is, 80.77% ( $\bar{X}=0.81$ ,  $SD=0.40$ ) scored from *link to*, 71.15% ( $\bar{X}=0.71$ ,  $SD=0.46$ ) scored from *remove from*, 69.23% ( $\bar{X}=0.69$ ,  $SD=0.47$ ) scored from *occur to*, 63.46% ( $\bar{X}=0.63$ ,  $SD=0.49$ ) scored from *transform into*, and 50.00% ( $\bar{X}=0.50$ ,  $SD=0.50$ ) scored from *focus on*.

After these five items, there were nine verb items which more than 20% of students could score from by providing the correct or acceptable meanings. That is, 44.23% ( $\bar{X}=0.44$ ,  $SD=0.50$ ) scored from *adapt to*, 40.38% ( $\bar{X}=0.40$ ,  $SD=0.50$ ) scored from *release from*, 38.46% ( $\bar{X}=0.38$ ,  $SD=0.49$ ) scored from *consist of*, 34.62% ( $\bar{X}=0.35$ ,  $SD=0.48$ ) scored from *rely on*, 30.77% ( $\bar{X}=0.31$ ,  $SD=0.47$ ) scored from *concentrate on*, 28.85% ( $\bar{X}=0.29$ ,  $SD=0.46$ ) scored from *coincide with* and *sum up*, 26.92% ( $\bar{X}=0.27$ ,  $SD=0.45$ ) scored from *participate in*, and 23.08% ( $\bar{X}=0.23$ ,  $SD=0.43$ ) scored from *restore to*.

Below 20% of students scored from providing the correct or acceptable meanings for the following verb items, excluding the four items which were scored zero (*derive from*, *conform to*, *shift to*, and *file for*). That is, 19.23% ( $\bar{X}=0.19$ ,  $SD=0.40$ ) scored from *expose to* and *recover from*, 15.38% ( $\bar{X}=0.15$ ,  $SD=0.36$ ) scored from *quote as*, 11.54% ( $\bar{X}=0.12$ ,  $SD=0.32$ ) scored from *benefit from*, 9.62% ( $\bar{X}=0.10$ ,  $SD=0.30$ ) scored from *exclude from*, 7.69% ( $\bar{X}=0.08$ ,  $SD=0.27$ ) scored from *contribute to* and *submit to*, 5.77% ( $\bar{X}=0.06$ ,  $SD=0.24$ ) scored from *compensate for*,

3.85% ( $\bar{X}$  = 0.04,  $SD$  = 0.19) scored from *dispose of* and *attribute to*, and 1.92% ( $\bar{X}$  = 0.02,  $SD$  = 0.14) scored from *reside in* and *intervene in*.

### 1.1.3 Type PM

Table 23 lists individual verb items' overall scores, which 52 first-year English majors obtained from providing the correct preposition and the correct or acceptable meaning in rank order.

**Table 23** Summary of first-year English majors' scores in type PM (preposition + meaning), ranked in order and classified by individual multi-word verbs items ( $N = 52$ )

Item	Rank	MWVs	Total PM scores earned	%	$\bar{X}$	$SD$
7	1	rely on	16	30.77	0.31	0.47
1	2	consist of	10	19.23	0.19	0.40
3	3	remove from	9	17.31	0.17	0.38
8	4	focus on	9	17.31	0.17	0.38
18	5	link to	7	13.46	0.13	0.34
30	6	release from	6	11.54	0.12	0.32
11	7	adapt to	4	7.69	0.08	0.27
20	8	recover from	4	7.69	0.08	0.27
10	9	submit to	2	3.85	0.04	0.19
14	10	expose to	2	3.85	0.04	0.19
5	11	concentrate on	1	1.92	0.02	0.14
6	12	participate in	1	1.92	0.02	0.14
13	13	coincide with	1	1.92	0.02	0.14
17	14	occur to	1	1.92	0.02	0.14
21	15	sum up	1	1.92	0.02	0.14
22	16	exclude from	1	1.92	0.02	0.14



Table 23 (cont.)

Item	Rank	MWVs	Total PM		$\bar{X}$	SD
			scores earned	%		
24	17	restore to	1	1.92	0.02	0.14
2	18	contribute to	0	0.00	0.00	0.00
4	19	derive from	0	0.00	0.00	0.00
9	20	attribute to	0	0.00	0.00	0.00
12	21	benefit from	0	0.00	0.00	0.00
15	22	transform into	0	0.00	0.00	0.00
16	23	dispose of	0	0.00	0.00	0.00
19	24	conform to	0	0.00	0.00	0.00
23	25	compensate for	0	0.00	0.00	0.00
25	26	reside in	0	0.00	0.00	0.00
26	27	quote as	0	0.00	0.00	0.00
27	28	intervene in	0	0.00	0.00	0.00
28	29	shift to	0	0.00	0.00	0.00
29	30	file for	0	0.00	0.00	0.00

Of the total 52 points, 16 points was the highest score obtained by the first-year English majors from providing the correct preposition as well as the correct or acceptable meaning for *rely on*. Meanwhile, 0 was the lowest score obtained by them from providing an incorrect preposition and/or an incorrect/inacceptable meaning for *contribute to*, *derive from*, *attribute to*, *benefit from*, *transform into*, *dispose of*, *conform to*, *compensate for*, *reside in*, *quote as*, *intervene in*, *shift to*, and *file for*. After *rely on*, these students scored 10 points from *consist of*, 9 from *remove from* and *focus on*, 7 from *link to*, 6 from *release from*, 4 from *adapt to* and *recover from*, 2 from *submit to* and *expose to*, and 1 from *concentrate on*, *participate in*, *coincide with*, *occur to*, *sum up*, *exclude from* and *restore to*.

The percentages showed that less than 50% of 52 students could score from providing both the correct preposition and the correct/acceptable meanings for many verb items. That is, 30.77% ( $\bar{X} = 0.31$ ,  $SD = 0.47$ ) scored from *rely on*, 19.23% ( $\bar{X} = 0.19$ ,  $SD = 0.40$ ) scored from *consist of*, 17.31% ( $\bar{X} = 0.17$ ,  $SD = 0.38$ ) scored from *remove from* and *focus on*, 13.46% ( $\bar{X} = 0.13$ ,  $SD = 0.34$ ) scored from *link to*, 11.54% ( $\bar{X} = 0.12$ ,  $SD = 0.32$ ) scored from *release from*, 7.69% ( $\bar{X} = 0.08$ ,  $SD = 0.27$ ) scored from *adapt to* and *recover from*, 3.85% ( $\bar{X} = 0.04$ ,  $SD = 0.19$ ) scored from *submit to* and *expose to*, 1.92% ( $\bar{X} = 0.02$ ,  $SD = 0.14$ ) scored from *concentrate on*, *participate in*, *coincide with*, *occur to*, *sum up*, *exclude from*, and *restore to*. Meanwhile, the verb items which 0% of students could score from were *contribute to*, *derive from*, *attribute to*, *benefit from*, *transform into*, *dispose of*, *conform to*, *compensate for*, *reside in*, *quote as*, *intervene in*, *shift to*, and *file for*.

### 1.2 To what extent do third-year students majoring in English score from the test of multi-word verbs?

Overall, 56 third-year English majors did not score more than 20 points in average for all three types of scores. That is, they scored 12.4 out of 30 in average ( $SD = 4.73$ ) from providing the correct or acceptable meanings for the multi-word verbs, 6.18 out of 30 in average ( $SD = 5.47$ ) from providing the correct prepositions for the given verbs, and 4.95 out of 30 in average ( $SD = 4.45$ ) from providing the correct preposition and meaning. Despite relatively low scores, the results indicated that the third-year English majors were more able to identify the meanings of the provided verbs with the target preposition than to identify the correct preposition. Whereas, there were the least chances in which they were able to receive both types of scores from one test item by providing the correct preposition and correct/acceptable meaning. Table 24 displays a summary of third-year English majors' average scores from the test of multi-word verbs classified by three types of scores: the correct preposition (P), correct/acceptable meaning (M), correct preposition and meaning (M) ( $N = 56$ ).



**Table 24** Summary of third-year English majors' average scores from the test of multi-word Verbs ( $N = 56$ )

	Type of scores	Total scores earned*	$\bar{X}$	$SD$
Test of multi-word verbs (30 items)	P	346	6.18	5.47
	M	696	12.43	4.73
	PM	276	4.93	4.39

\* The total scored earned were counted from the number of the correct responses from all test items answered by 56 students.

The scores for the individual verb items which this group of students obtained were counted and ranked to indicate the extent to which they were able to use the provided multi-word items in three dimensions: the ability to provide the correct preposition for the provided verb (Type P), the correct or acceptable meaning (Type M), and the correct preposition and meaning (Type PM).

### 1.2.1 Type P

Table 25 lists individual verb items' overall scores, which 56 third-year English majors obtained from providing the correct preposition, in rank order. The number of students who could score from one verb item represents the score for that item obtained by a group. Hence, the total score of one verb item equals 56, which is the number of students in this group.

**Table 25** Summary of third-year English majors' scores in type P (preposition), ranked in order and classified by individual multi-word verb items ( $N = 56$ )

Item	Rank	MWVs	Total scores earned	%	$\bar{X}$	$SD$
8	1	focus on	42	75.00	0.75	0.44
7	2	rely on	31	55.36	0.55	0.50
1	3	consist of	27	48.21	0.48	0.50
30	4	release from	23	41.07	0.41	0.50
3	5	remove from	22	39.29	0.39	0.49
18	6	link to	19	33.93	0.34	0.48
10	7	submit to	16	28.57	0.29	0.46
2	8	contribute to	15	26.79	0.27	0.45
21	9	sum up	15	26.79	0.27	0.45
6	10	participate in	13	23.21	0.23	0.43
5	11	concentrate on	12	21.43	0.21	0.41
11	12	adapt to	12	21.43	0.21	0.41
20	13	recover from	12	21.43	0.21	0.41
17	15	occur to	10	17.86	0.18	0.39
14	14	expose to	9	16.07	0.16	0.37
9	16	attribute to	8	14.29	0.14	0.35
19	17	conform to	8	14.29	0.14	0.35
22	18	exclude from	8	14.29	0.14	0.35
13	19	coincide with	7	12.50	0.13	0.33
24	20	restore to	6	10.71	0.11	0.31
12	21	benefit from	5	8.93	0.09	0.29
25	22	reside in	5	8.93	0.09	0.29
4	23	derive from	4	7.14	0.07	0.26
16	24	dispose of	4	7.14	0.07	0.26
23	25	compensate for	4	7.14	0.07	0.26



Table 25 (cont.)

Item	Rank	MWVs	Total scores earned	%	$\bar{X}$	$SD$
28	26	shift to	4	7.14	0.07	0.26
27	27	intervene in	3	5.36	0.05	0.23
15	28	transform into	1	1.79	0.02	0.13
29	29	file for	1	1.79	0.02	0.13
26	30	quote as	0	0.00	0.00	0.00

Of the total 56 points, 42 points was the highest score obtained by the third-year English majors from providing the correct preposition *on* for the verb *focus*, while 0 was the lowest score obtained by them from providing an incorrect preposition or nothing for the verb *quote*. After *focus on*, these students could score more than 20 points from the verb items including: 31 points from *rely on*, 27 from *consist of*, 23 from *release from*, and 22 from *remove from*. They scored between 10 and 20 points from the verb items including: 19 from *link to*, 16 from *submit to*, 15 from *contribute to* and *sum up*, 13 from *participate in*, 12 from *concentrate on*, *adapt to*, and *recover from*, and 10 from *occur to*. They scored lower than 10 points from the verb items including: 9 points from *expose to*, 8 from *attribute to*, *conform to*, and *exclude from*, 7 from *coincide with*, 6 from *restore to*, 5 from *benefit from*, *reside in*, and *shift to*, 4 from *derive from*, *dispose of*, and *compensate for*, 3 from *intervene in*, and 1 from *transform into* and *file for*.

The percentages showed that more than 40% of 56 students could score from providing the correct preposition for five verb items. That is, 75.00% ( $\bar{X} = 0.75$ ,  $SD = 0.44$ ) scored from *focus on*, 55.36% ( $\bar{X} = 0.55$ ,  $SD = 0.50$ ) scored from *rely on*, 48.21% ( $\bar{X} = 0.48$ ,  $SD = 0.50$ ) scored from *consist of*, and 41.07% ( $\bar{X} = 0.41$ ,  $SD = 0.50$ ) scored from *release from*.

After these five verb items, there were nine verb items which more than 20% of students could score from by providing the correct preposition. That is, 39.29% ( $\bar{X} = 0.39$ ,  $SD = 0.49$ ) scored from *remove from*, 33.93% ( $\bar{X} = 0.34$ ,

$SD = 0.48$ ) scored from *link to*, 28.57% ( $\bar{X} = 0.29$ ,  $SD = 0.46$ ) scored from *submit to*, 26.79% ( $\bar{X} = 0.27$ ,  $SD = 0.45$ ) scored from *contribute to* and *sum up*, 23.21% ( $\bar{X} = 0.23$ ,  $SD = 0.43$ ) scored from *participate in*, and 21.43% ( $\bar{X} = 0.21$ ,  $SD = 0.41$ ) scored from *concentrate on*, *adapt to*, and *recover from*.

Less than 20% of students could score from providing the correct preposition for the rest verb items. That is, 17.86% ( $\bar{X} = 0.18$ ,  $SD = 0.39$ ) scored from *occur to*, 16.07% ( $\bar{X} = 0.16$ ,  $SD = 0.37$ ) scored from *expose to*, 14.29% ( $\bar{X} = 0.14$ ,  $SD = 0.35$ ) scored from *attribute to*, *conform to*, and *exclude from*, 12.50% ( $\bar{X} = 0.13$ ,  $SD = 0.33$ ) scored from *coincide with* and *restore to*, 10.71% ( $\bar{x} = 0.11$ ,  $SD = 0.31$ ) scored from *restore to*, 8.93% ( $\bar{X} = 0.09$ ,  $SD = 0.29$ ) scored from *benefit from*, *reside in*, and *shift to*, 7.14% ( $\bar{X} = 0.07$ ,  $SD = 0.26$ ) scored from *derive from*, *dispose of*, and *compensate for*, 5.36% ( $\bar{X} = 0.05$ ,  $SD = 0.23$ ) scored from *intervene in*, 1.79% ( $\bar{X} = 0.02$ ,  $SD = 0.13$ ) scored from *transform into* and *file for*, and 0% ( $\bar{X} = 0$ ,  $SD = 0$ ) scored from *quote as*.

### 1.2.2 Type M

Table 26 lists individual verb items' overall scores, which 56 third-year English majors obtained from providing the correct or acceptable meaning, in rank order.

**Table 26** Summary of third-year English majors' scores in type M (meaning), ranked in order and classified by individual multi-word verb items ( $N = 56$ )

Item	Rank	MWVs	Total scores earned	%	$\bar{X}$	$SD$
8	1	focus on	50	89.29	0.89	0.31
15	2	transform into	49	87.50	0.88	0.33
18	3	link to	49	87.50	0.88	0.33



Table 26 (cont.)

Item	Rank	MWVs	Total scores earned	%	$\bar{X}$	<i>SD</i>
3	4	remove from	47	83.93	0.84	0.37
30	5	release from	43	76.79	0.77	0.43
6	6	participate in	42	75.00	0.75	0.44
21	7	sum up	42	75.00	0.75	0.44
17	8	occur to	41	73.21	0.73	0.45
1	9	consist of	39	69.64	0.70	0.46
11	10	adapt to	34	60.71	0.61	0.49
5	11	concentrate on	32	57.14	0.57	0.50
7	12	rely on	31	55.36	0.55	0.50
13	13	coincide with	27	48.21	0.48	0.50
24	14	restore to	27	48.21	0.48	0.50
14	15	expose to	20	35.71	0.36	0.48
10	16	submit to	18	32.14	0.32	0.47
20	17	recover from	18	32.14	0.32	0.47
16	18	dispose of	13	23.21	0.23	0.43
12	19	benefit from	12	21.43	0.21	0.41
22	20	exclude from	11	19.64	0.20	0.40
23	21	compensate for	10	17.86	0.18	0.39
28	22	shift to	9	16.07	0.16	0.37
26	23	quote as	7	12.50	0.13	0.33
2	24	contribute to	6	10.71	0.11	0.31
4	25	derive from	5	8.93	0.09	0.29
19	26	conform to	4	7.14	0.07	0.26
25	27	reside in	4	7.14	0.07	0.26

Table 26 (cont.)

Item	Rank	MWVs	Total scores earned	%	$\bar{X}$	$SD$
9	28	attribute to	3	5.36	0.05	0.23
27	29	intervene in	3	5.36	0.05	0.23
29	30	file for	0	0.00	0.00	0.00

Of the total 56 points, 50 points was the highest score obtained by the third-year English majors from providing the correct or acceptable meaning for *focus on*, while 0 was the lowest score obtained by them from providing an incorrect or unacceptable meaning or nothing for *file for*. After *focus on*, these students scored more than 20 points from the verb items including: 49 from *transform into* and *link to*, 47 from *remove from*, 43 from *release from*, 42 from *participate in* and *sum up*, 41 from *occur to*, 39 from *consist of*, 34 from *adapt to*, 32 from *concentrate on*, 31 from *rely on*, 27 from *coincide with* and *restore to*, and 20 from *expose to*.

After these verb items, these students scored less than 20 points from the verb items including: 18 from *submit to* and *recover from*, 13 from *dispose of*, 12 from *benefit from*, 11 from *exclude from*, 10 from *compensate for*, 9 from *shift to*, 7 from *quote as*, 6 from *contribute to*, 5 from *derive from*, 4 from *conform to* and *reside in*, and 3 from *attribute to* and *intervene in*.

The percentages showed that more than 50% of 56 students could score from providing the correct or acceptable meanings for twelve verb items. That is, 89.29% ( $\bar{X}=0.89$ ,  $SD=0.31$ ) scored from *focus on*, 87.50% ( $\bar{X}=0.88$ ,  $SD=0.33$ ) scored from *transform into* and *link to*, 83.93% ( $\bar{X}=0.84$ ,  $SD=0.37$ ) scored from *remove from*, 76.79% ( $\bar{X}=0.77$ ,  $SD=0.43$ ) scored from *release from*, 75.00% ( $\bar{X}=0.75$ ,  $SD=0.44$ ) scored from *participate in* and *sum up*, 73.21% ( $\bar{X}=0.73$ ,  $SD=0.45$ ) scored from *occur to*, 69.64% ( $\bar{X}=0.70$ ,  $SD=0.46$ ) scored from *consist of*, 60.71% ( $\bar{X}=0.61$ ,  $SD=0.49$ ) scored from *adapt to*, 57.14% ( $\bar{X}=0.57$ ,  $SD=0.50$ ) scored from *concentrate on*, and 55.36% ( $\bar{X}=0.55$ ,  $SD=0.50$ ) scored from *rely on*.



From 20% to 50% of students could score from providing the correct or acceptable meanings for the following verb items. That is, 48.21% ( $\bar{X}$  = 0.48,  $SD$  = 0.50) scored from *coincide with* and *restore to*, 35.71% ( $\bar{X}$  = 0.36,  $SD$  = 0.48) scored from *expose to*, 32.14% ( $\bar{X}$  = 0.32,  $SD$  = 0.47) scored from *submit to* and *recover from*, 23.21% ( $\bar{X}$  = 0.23,  $SD$  = 0.43) scored from *dispose of*, and 21.43% ( $\bar{X}$  = 0.21,  $SD$  = 0.41) scored from *benefit from*.

Less than 20% of students could score from providing the correct or acceptable meanings for the following verb items. That is, 19.64% ( $\bar{X}$  = 0.20,  $SD$  = 0.40) scored from *exclude from*, 17.86% ( $\bar{X}$  = 0.18,  $SD$  = 0.39) scored from *compensate for*, 16.07% ( $\bar{X}$  = 0.16,  $SD$  = 0.37) scored from *shift to*, 12.50% ( $\bar{X}$  = 0.13,  $SD$  = 0.33) scored from *quote as*, 10.71% ( $\bar{X}$  = 0.11,  $SD$  = 0.31) scored from *contribute to*, 8.93% ( $\bar{X}$  = 0.09,  $SD$  = 0.29) scored from *derive from*, 7.14% ( $\bar{X}$  = 0.07,  $SD$  = 0.26) scored from *conform to* and *reside in*, 5.36% ( $\bar{X}$  = 0.05,  $SD$  = 0.23) scored from *attribute to* and *intervene in*, and 0% ( $\bar{X}$  = 0,  $SD$  = 0) scored from *file for*.

### 1.2.3 Type PM

Table 27 lists individual verb items' overall scores, which 56 third-year English majors obtained from providing the correct preposition and the correct or acceptable meaning in rank order.

**Table 27 Summary of third-year English majors' scores in type PM (preposition + meaning), ranked in order and classified by individual multi-word verb items ( $N = 56$ )**

Item	Rank	MWVs	Total scores earned	%	$\bar{X}$	$SD$
8	1	focus on	40	71.43	0.71	0.46
7	2	rely on	28	50.00	0.50	0.50
1	3	consist of	27	48.21	0.48	0.50

Table 27 (cont.)

Item	Rank	MWVs	Total scores earned	%	$\bar{X}$	$SD$
3	4	remove from	22	39.29	0.39	0.49
30	5	release from	22	39.29	0.39	0.49
18	6	link to	18	32.14	0.32	0.47
21	7	sum up	15	26.79	0.27	0.45
6	8	participate in	13	23.21	0.23	0.43
20	9	recover from	12	21.43	0.21	0.41
5	10	concentrate on	11	19.64	0.20	0.40
11	11	adapt to	10	17.86	0.18	0.39
10	12	submit to	9	16.07	0.16	0.37
13	13	coincide with	7	12.50	0.13	0.33
17	14	occur to	7	12.50	0.13	0.33
2	15	contribute to	5	8.93	0.09	0.29
22	16	exclude from	5	8.93	0.09	0.29
12	17	benefit from	4	7.14	0.07	0.26
16	18	dispose of	4	7.14	0.07	0.26
24	19	restore to	4	7.14	0.07	0.26
14	20	expose to	3	5.36	0.05	0.23
4	21	derive from	2	3.57	0.04	0.19
19	23	conform to	2	3.57	0.04	0.19
23	24	compensate for	2	3.57	0.04	0.19
28	25	shift to	2	3.57	0.04	0.19
9	26	attribute to	1	1.79	0.02	0.13
15	22	transform into	1	1.79	0.02	0.13
25	27	reside in	0	0.00	0.00	0.00



Table 27 (cont.)

Item	Rank	MWVs	Total scores earned	%	$\bar{X}$	$SD$
26	28	quote as	0	0.00	0.00	0.00
27	29	intervene in	0	0.00	0.00	0.00
29	30	file for	0	0.00	0.00	0.00

Of the total 56 points, 40 points was the highest score obtained by the third-year English majors from providing the correct preposition as well as the correct or acceptable meaning for *focus on*. Meanwhile, 0 was the lowest score obtained by them from providing an incorrect preposition and/or an incorrect/inacceptable meaning for *reside in*, *quote as*, *intervene in*, and *file for*. After *focus on*, these students scored more than 10 points or equal from the following verb items. These were: 28 points from *rely on*, 27 from *consist of*, 22 from *remove from* and *release from*, 18 from *link to*, 15 from *sum up*, 13 from *participate in*, 12 from *recover from*, 11 from *concentrate on*, and 10 from *adapt to*. Meanwhile, they scored less than 10 points from the verb items including: 9 from *submit to*, 7 from *coincide with* and *occur to*, 5 from *contribute to* and *exclude from*, 4 from *benefit from*, *dispose of*, and *restore to*, 3 from *expose to*, 2 from *derive from*, *conform to*, *compensate for*, and *shift to*, and 1 from *attribute to* and *transform into*.

The percentages showed that more than 50% of students or equal could score from providing both the correct preposition and the correct/acceptable meanings for the two verb items, *focus on* (71.43%,  $\bar{X} = 0.71$ ,  $SD = 0.46$ ) and *rely on* (50.00%,  $\bar{X} = 0.50$ ,  $SD = 0.50$ ). After these two verb items, there were eight verb items which more than 20% of students could score from. That is, 48.21% ( $\bar{X} = 0.48$ ,  $SD = 0.50$ ) of students scored from *consist of*, 39.29% ( $\bar{X} = 0.39$ ,  $SD = 0.49$ ) scored from *remove from* and *release from*, 32.14% ( $\bar{X} = 0.32$ ,  $SD = 0.47$ ) scored from *link to*, 26.79% ( $\bar{X} = 0.27$ ,  $SD = 0.45$ ) scored from *sum up*, 23.21% ( $\bar{X} = 0.23$ ,  $SD = 0.43$ ) scored from *participate in*, and 21.43% ( $\bar{X} = 0.21$ ,  $SD = 0.41$ ) scored from *recover from*.

Less than 20% of the students could score from providing both the correct preposition and the correct/acceptable meanings for the following verb items. These were: 19.64% ( $\bar{X}$  = 0.20,  $SD$  = 0.40) scored from *concentrate on*, 17.86% ( $\bar{X}$  = 0.18,  $SD$  = 0.39) scored from *adapt to*, 16.07% ( $\bar{X}$  = 0.16,  $SD$  = 0.37) scored from *submit to*, 12.50% ( $\bar{X}$  = 0.13,  $SD$  = 0.33) scored from *coincide with* and *occur to*, 8.93% ( $\bar{x}$  = 0.09,  $SD$  = 0.29) scored from *contribute to* and *exclude from*, 7.14% ( $\bar{X}$  = 0.07,  $SD$  = 0.26) scored from *benefit from*, *dispose of*, and *restore to*, 5.36% ( $\bar{X}$  = 0.05,  $SD$  = 0.23) scored from *expose to*, 3.57% ( $\bar{X}$  = 0.04,  $SD$  = 0.19) scored from *derive from*, *conform to*, *compensate for*, and *shift to*, 1.79% ( $\bar{X}$  = 0.02,  $SD$  = 0.13) scored from *attribute to* and *transform into*, and 0% ( $\bar{X}$  = 0,  $SD$  = 0) scored from *reside in*, *quote as*, *intervene in*, and *file for*.

### 1.3 What are the differences between the scores of the first-year students and those of the third-year students, majoring in English?

#### 1.3.1 The differences in an overall ability to use multi-word verbs

Overall, the statistical analysis from the independent-samples t-test revealed that there was a significant difference in three types of scores obtained by first-year English majors and third-year English majors. As displayed in Table 28, the third-year English majors received significantly higher scores in all three categories.

**Table 28** Statistical differences of first-year vs. third-year students' scores in three categories

Type	Type of scores	Group	<i>n</i>	$\bar{X}$	<i>SD</i>	<i>t</i>	Sig.
P	Correct preposition	1 <sup>st</sup> yr.	52	2.29	2.99	-4.628	0.000*
		3 <sup>rd</sup> yr.	56	6.18	5.47		
M	Correct meaning	1 <sup>st</sup> yr.	52	7.38	3.71	-6.132	0.000*
		3 <sup>rd</sup> yr.	56	12.43	4.73		
PM	Correct meaning and preposition	1 <sup>st</sup> yr.	52	1.46	2.08	-5.303	0.000*
		3 <sup>rd</sup> yr.	56	4.93	4.39		

\*statistically significant at  $p < 0.01$



These include:

1) The third-year English majors ( $\bar{X} = 6.18$ ,  $SD = 5.47$ ) reported significantly higher type-P scores than the first-year English majors ( $\bar{X} = 2.29$ ,  $SD = 2.99$ ),  $t(86.331) = -4.628$ ,  $p = 0.000$ ).

2) The third-year English majors ( $\bar{X} = 12.43$ ,  $SD = 4.73$ ) reported significantly higher type-M scores than the first-year English majors ( $\bar{X} = 7.38$ ,  $SD = 3.71$ ),  $t(106) = -6.132$ ,  $p = 0.000$ ).

3) The third-year English majors ( $\bar{X} = 4.93$ ,  $SD = 4.39$ ) reported significantly higher type-PM scores than the first-year English majors ( $\bar{X} = 1.46$ ,  $SD = 2.08$ ),  $t(79.812) = -5.303$ ,  $p = 0.000$ ).

### 1.3.2 The differences in an ability to use individual multi-word verbs: Type P (preposition)

Type-P scores obtained by these two groups of students were compared to determine the differences between their ability to provide the correct preposition for individual verb items. As seen in Table 29, the results revealed that the third-year English majors received significantly higher type-P scores than the first-year English majors did in the following multi-word verbs.

**Table 29 Comparison between the average scores of first-year vs. third-year students: Type P (preposition)**

Item No.	MWVs	Group	<i>n</i>	$\bar{X}$	<i>SD</i>	<i>t</i>	Sig.
1.	consist of	1 <sup>st</sup> yr.	52	0.23	0.43	-2.807	0.006*
		3 <sup>rd</sup> yr.	56	0.48	0.50		
2.	contribute to	1 <sup>st</sup> yr.	52	0.06	0.24	-3.088	0.003*
		3 <sup>rd</sup> yr.	56	0.27	0.45		
3.	remove from	1 <sup>st</sup> yr.	52	0.17	0.38	-2.600	0.011**
		3 <sup>rd</sup> yr.	56	0.39	0.49		
4.	derive from	1 <sup>st</sup> yr.	52	0.00	0.00	-2.057	0.044**
		3 <sup>rd</sup> yr.	56	0.07	0.26		

Table 29 (cont.)

Item No.	MWVs	Group	<i>n</i>	$\bar{X}$	<i>SD</i>	<i>t</i>	Sig.
5.	concentrate on	1 <sup>st</sup> yr.	52	0.04	0.19	-2.857	0.005*
		3 <sup>rd</sup> yr.	56	0.21	0.41		
6.	participate in	1 <sup>st</sup> yr.	52	0.12	0.32	-1.613	0.110
		3 <sup>rd</sup> yr.	56	0.23	0.43		
7.	rely on	1 <sup>st</sup> yr.	52	0.38	0.49	-1.766	0.080
		3 <sup>rd</sup> yr.	56	0.55	0.50		
8.	focus on	1 <sup>st</sup> yr.	52	0.31	0.47	-5.091	0.000*
		3 <sup>rd</sup> yr.	56	0.75	0.43		
9.	attribute to	1 <sup>st</sup> yr.	52	0.06	0.24	-1.484	0.141
		3 <sup>rd</sup> yr.	56	0.14	0.35		
10.	submit to	1 <sup>st</sup> yr.	52	0.10	0.30	-2.576	0.012**
		3 <sup>rd</sup> yr.	56	0.29	0.46		
11.	adapt to	1 <sup>st</sup> yr.	52	0.10	0.30	-1.711	0.090
		3 <sup>rd</sup> yr.	56	0.21	0.41		
12.	benefit from	1 <sup>st</sup> yr.	52	0.00	0.00	-2.322	0.024**
		3 <sup>rd</sup> yr.	56	0.09	0.29		
13.	coincide with	1 <sup>st</sup> yr.	52	0.02	0.14	-2.178	0.033**
		3 <sup>rd</sup> yr.	56	0.13	0.33		
14.	expose to	1 <sup>st</sup> yr.	52	0.13	0.35	-0.378	0.706
		3 <sup>rd</sup> yr.	56	0.16	0.37		
15.	transform into	1 <sup>st</sup> yr.	52	0.00	0.00	-0.963	0.338
		3 <sup>rd</sup> yr.	56	0.02	0.13		
16.	dispose of	1 <sup>st</sup> yr.	52	0.00	0.00	-2.057	0.044**
		3 <sup>rd</sup> yr.	56	0.07	0.26		
17.	occur to	1 <sup>st</sup> yr.	52	0.02	0.14	-2.891	0.005*
		3 <sup>rd</sup> yr.	56	0.18	0.39		
18.	link to	1 <sup>st</sup> yr.	52	0.17	0.38	-2.004	0.048**
		3 <sup>rd</sup> yr.	56	0.34	0.48		



Table 29 (cont.)

Item No.	MWVs	Group	<i>n</i>	$\bar{X}$	<i>SD</i>	<i>t</i>	Sig.
19.	conform to	1 <sup>st</sup> yr.	52	0.04	0.19	-1.922	0.058
		3 <sup>rd</sup> yr.	56	0.14	0.35		
20.	recover from	1 <sup>st</sup> yr.	52	0.10	0.30	-1.711	0.090
		3 <sup>rd</sup> yr.	56	0.21	0.41		
21.	sum up	1 <sup>st</sup> yr.	52	0.02	0.14	-3.963	0.000*
		3 <sup>rd</sup> yr.	56	0.27	0.45		
22.	exclude from	1 <sup>st</sup> yr.	52	0.04	0.19	-1.922	0.058
		3 <sup>rd</sup> yr.	56	0.14	0.35		
23.	compensate for	1 <sup>st</sup> yr.	52	0.02	0.14	-1.315	0.192
		3 <sup>rd</sup> yr.	56	0.07	0.26		
24.	restore to	1 <sup>st</sup> yr.	52	0.04	0.19	-1.383	0.170
		3 <sup>rd</sup> yr.	56	0.11	0.31		
25.	reside in	1 <sup>st</sup> yr.	52	0.00	0.00	-2.322	0.024**
		3 <sup>rd</sup> yr.	56	0.09	0.29		
26.	quote as	1 <sup>st</sup> yr.	52	0.00	0.00	-	-
		3 <sup>rd</sup> yr.	56	0.00	0.00		
27.	intervene in	1 <sup>st</sup> yr.	52	0.00	0.00	-1.764	0.083
		3 <sup>rd</sup> yr.	56	0.05	0.23		
28.	shift to	1 <sup>st</sup> yr.	52	0.00	0.00	-2.057	0.044**
		3 <sup>rd</sup> yr.	56	0.07	0.26		
29.	file for	1 <sup>st</sup> yr.	52	0.02	0.14	0.052	0.958
		3 <sup>rd</sup> yr.	56	0.02	0.13		
30.	release from	1 <sup>st</sup> yr.	52	0.12	0.32	-3.691	0.000*
		3 <sup>rd</sup> yr.	56	0.41	0.50		
Total		1 <sup>st</sup> yr.	52	2.29	2.99	-4.628	0.000*
		3 <sup>rd</sup> yr.	56	6.18	5.47		

\* Statistically significant at  $p < 0.01$  \*\* Statistically significant at  $p < 0.05$

The differences between the scores for type P (preposition) obtained by the first-year English majors and the third-year English majors for the following seven multi-word verbs were statistically significant at  $p < 0.01$ : *consist of*, *contribute to*, *concentrate on*, *focus on*, *occur to*, *sum up*, and *release form*.

The differences between the scores for type P (preposition) obtained by the first-year English majors and the third-year English majors for the following nine multi-word verbs were statistically significant at  $p < 0.05$ : *derive from*, *benefit from*, *coincide with*, *dispose of*, *link to*, *remove from*, *reside in*, *shift to*, and *submit to*.

Meanwhile, there was no significant difference in type-P scores from the following thirteen multi-word verbs: *participate in*, *rely on*, *attribute to*, *adapt to*, *expose to*, *transform into*, *conform to*, *recover from*, *exclude from*, *compensate for*, *restore to*, *intervene in*, and *file for*.

It should be noted that the case of which the t-test results could not be obtained including the verb item, *quote as*, was due to the 0 point gained by both groups of students. Due to the similarity of these results, it could be also interpreted that the difference between these two groups performance to give the meaning for *quote as* was not significant.

### **1.3.3 The differences in an ability to use individual multi-word verbs: Type M (meaning)**

Type-M scores obtained by these two groups of students were compared to determine the differences between their ability to provide the correct or acceptable meaning for individual verb items. As seen in Table 30, the results revealed that the third-year English majors reported significantly higher Type-M scores than the first-year English majors in the following multi-word verbs.



**Table 30 Comparison between the average scores of first-year vs. third-year students: Type M (meaning)**

Item No.	MWVs	Group	<i>n</i>	$\bar{X}$	<i>SD</i>	<i>t</i>	Sig.
1.	consist of	1 <sup>st</sup> yr.	52	0.38	0.49	-3.392	0.001*
		3 <sup>rd</sup> yr.	56	0.70	0.46		
2.	contribute to	1 <sup>st</sup> yr.	52	0.08	0.27	-0.537	0.592
		3 <sup>rd</sup> yr.	56	0.11	0.31		
3.	remove from	1 <sup>st</sup> yr.	52	0.71	0.46	-1.87	0.116
		3 <sup>rd</sup> yr.	56	0.84	0.37		
4.	derive from	1 <sup>st</sup> yr.	52	0.00	0.00	-2.322	0.024**
		3 <sup>rd</sup> yr.	56	0.09	0.29		
5.	concentrate on	1 <sup>st</sup> yr.	52	0.31	0.47	-2.839	0.005*
		3 <sup>rd</sup> yr.	56	0.57	0.50		
6.	participate in	1 <sup>st</sup> yr.	52	0.27	0.45	-5.645	0.000*
		3 <sup>rd</sup> yr.	56	0.75	0.44		
7.	rely on	1 <sup>st</sup> yr.	52	0.35	0.48	-2.191	0.031**
		3 <sup>rd</sup> yr.	56	0.55	0.50		
8.	focus on	1 <sup>st</sup> yr.	52	0.50	0.50	-4.821	0.000*
		3 <sup>rd</sup> yr.	56	0.89	0.31		
9.	attribute to	1 <sup>st</sup> yr.	52	0.04	0.19	-0.370	0.712
		3 <sup>rd</sup> yr.	56	0.05	0.23		
10.	submit to	1 <sup>st</sup> yr.	52	0.08	0.27	-3.340	0.001*
		3 <sup>rd</sup> yr.	56	0.32	0.47		
11.	adapt to	1 <sup>st</sup> yr.	52	0.44	0.50	-1.722	0.088
		3 <sup>rd</sup> yr.	56	0.61	0.49		
12.	benefit from	1 <sup>st</sup> yr.	52	0.12	0.32	-1.390	0.168
		3 <sup>rd</sup> yr.	56	0.21	0.41		
13.	coincide with	1 <sup>st</sup> yr.	52	0.29	0.46	-2.093	0.039**
		3 <sup>rd</sup> yr.	56	0.48	0.50		
14.	expose to	1 <sup>st</sup> yr.	52	0.19	0.40	-1.940	0.055
		3 <sup>rd</sup> yr.	56	0.36	0.48		

Table 30 (cont.)

Item No.	MWVs	Group	<i>n</i>	$\bar{X}$	<i>SD</i>	<i>t</i>	Sig.
15.	transform into	1 <sup>st</sup> yr.	52	0.63	0.49	-2.974	0.004*
		3 <sup>rd</sup> yr.	56	0.88	0.33		
16.	dispose of	1 <sup>st</sup> yr.	52	0.04	0.19	-3.075	0.003*
		3 <sup>rd</sup> yr.	56	0.23	0.43		
17.	occur to	1 <sup>st</sup> yr.	52	0.69	0.47	-0.453	0.651
		3 <sup>rd</sup> yr.	56	0.73	0.45		
18.	link to	1 <sup>st</sup> yr.	52	0.81	0.40	-0.955	0.342
		3 <sup>rd</sup> yr.	56	0.88	0.33		
19.	conform to	1 <sup>st</sup> yr.	52	0.00	0.00	-2.057	0.044**
		3 <sup>rd</sup> yr.	56	0.07	0.26		
20.	recover from	1 <sup>st</sup> yr.	52	0.19	0.40	-1.542	0.126
		3 <sup>rd</sup> yr.	56	0.32	0.47		
21.	sum up	1 <sup>st</sup> yr.	52	0.29	0.46	-5.362	0.000*
		3 <sup>rd</sup> yr.	56	0.75	0.44		
22.	exclude from	1 <sup>st</sup> yr.	52	0.10	0.30	-1.483	0.141
		3 <sup>rd</sup> yr.	56	0.20	0.40		
23.	compensate for	1 <sup>st</sup> yr.	52	0.06	0.24	-1.978	0.051
		3 <sup>rd</sup> yr.	56	0.18	0.39		
24.	restore to	1 <sup>st</sup> yr.	52	0.23	0.43	-2.807	0.006*
		3 <sup>rd</sup> yr.	56	0.48	0.50		
25.	reside in	1 <sup>st</sup> yr.	52	0.02	0.14	-1.315	0.192
		3 <sup>rd</sup> yr.	56	0.07	0.26		
26.	quote as	1 <sup>st</sup> yr.	52	0.15	0.36	0.429	0.668
		3 <sup>rd</sup> yr.	56	0.13	0.33		
27.	intervene in	1 <sup>st</sup> yr.	52	0.02	0.14	-0.939	0.350
		3 <sup>rd</sup> yr.	56	0.05	0.23		
28.	shift to	1 <sup>st</sup> yr.	52	0.00	0.00	-3.245	0.002*
		3 <sup>rd</sup> yr.	56	0.16	0.37		
29.	file for	1 <sup>st</sup> yr.	52	0.00	0.00	-	-
		3 <sup>rd</sup> yr.	56	0.00	0.00		



Table 30 (cont.)

Item No.	MWVs	Group	<i>n</i>	$\bar{X}$	<i>SD</i>	<i>t</i>	Sig.
30.	release from	1 <sup>st</sup> yr.	52	0.40	0.50	-4.080	0.000*
		3 <sup>rd</sup> yr.	56	0.77	0.43		
Total		1 <sup>st</sup> yr.	52	7.38	3.71	-6.132	0.000*
		3 <sup>rd</sup> yr.	56	12.43	4.73		

\* Statistically significant at  $p < 0.01$  \*\* Statistically significant at  $p < 0.05$

The differences between the scores for type M (meaning) obtained by the first-year English majors and the third-year English majors for the following eleven multi-word verbs were statistically significant at  $p < 0.01$ : *consist of*, *concentrate on*, *participate in*, *focus on*, *submit to*, *transform into*, *dispose of*, *sum up*, *restore to*, *shift to*, and *release from*.

The differences between the scores for type M (meaning) obtained by the first-year English majors and the third-year English majors for the following four multi-word verbs were statistically significant at  $p < 0.05$ : *derive from*, *rely on*, *coincide with*, and *conform to*.

Meanwhile, there was no significant difference in type-M scores from the following fourteen multi-word verbs: *contribute to*, *remove from*, *attribute to*, *adapt to*, *benefit from*, *expose to*, *occur to*, *link to*, *recover from*, *exclude from*, *compensate for*, *reside in*, *quote as*, and *intervene in*.

It should be noted that the case of which the t-test results could not be obtained including the verb item, *file for*, was due to the 0 point gained by both groups of students. Due to the similarity of these results, it could be also interpreted that the difference between these two groups performance to give the meaning for *file for* was not significant.

### 1.3.4 The differences in an ability to use individual multi-word verbs: Type PM (preposition + meaning)

Type-PM scores obtained by these two groups of students were compared to determine the differences between their ability to provide the correct preposition as well as the correct or acceptable meaning for individual verb items. As seen in Table 31, the results revealed that the third-year English majors reported significantly higher Type-PM scores than the first-year English majors in the following multi-word verbs.

**Table 31 Comparison between the average scores of first-year vs. third-year students: Type PM (preposition + meaning)**

Item No.	MWVs	Group	<i>n</i>	$\bar{X}$	<i>SD</i>	<i>t</i>	Sig.
1.	consist of	1 <sup>st</sup> yr.	52	0.19	0.40	-3.328	0.001*
		3 <sup>rd</sup> yr.	56	0.48	0.50		
2.	contribute to	1 <sup>st</sup> yr.	52	0.00	0.00	-2.322	0.024**
		3 <sup>rd</sup> yr.	56	0.09	0.29		
3.	remove from	1 <sup>st</sup> yr.	52	0.17	0.38	-2.600	0.011**
		3 <sup>rd</sup> yr.	56	0.39	0.49		
4.	derive from	1 <sup>st</sup> yr.	52	0.00	0.00	-1.427	0.159
		3 <sup>rd</sup> yr.	56	0.04	0.19		
5.	concentrate on	1 <sup>st</sup> yr.	52	0.02	0.14	-3.113	0.003*
		3 <sup>rd</sup> yr.	56	0.20	0.40		
6.	participate in	1 <sup>st</sup> yr.	52	0.02	0.14	-3.543	0.001*
		3 <sup>rd</sup> yr.	56	0.23	0.43		
7.	rely on	1 <sup>st</sup> yr.	52	0.31	0.47	-2.059	0.042**
		3 <sup>rd</sup> yr.	56	0.50	0.50		
8.	focus on	1 <sup>st</sup> yr.	52	0.17	0.38	-6.704	0.000*
		3 <sup>rd</sup> yr.	56	0.71	0.46		



Table 31 (cont.)

Item No.	MWVs	Group	<i>n</i>	$\bar{X}$	<i>SD</i>	<i>t</i>	Sig.
9.	attribute to	1 <sup>st</sup> yr.	52	0.00	0.00	-0.963	0.338
		3 <sup>rd</sup> yr.	56	0.02	0.13		
10.	submit to	1 <sup>st</sup> yr.	52	0.04	0.19	-2.169	0.033**
		3 <sup>rd</sup> yr.	56	0.16	0.37		
11.	adapt to	1 <sup>st</sup> yr.	52	0.08	0.27	-1.595	0.114
		3 <sup>rd</sup> yr.	56	0.18	0.39		
12.	benefit from	1 <sup>st</sup> yr.	52	0.00	0.00	-2.057	0.044**
		3 <sup>rd</sup> yr.	56	0.07	0.26		
13.	coincide with	1 <sup>st</sup> yr.	52	0.02	0.14	-2.178	0.033**
		3 <sup>rd</sup> yr.	56	0.13	0.33		
14.	expose to	1 <sup>st</sup> yr.	52	0.04	0.19	-0.370	0.712
		3 <sup>rd</sup> yr.	56	0.05	0.23		
15.	transform into	1 <sup>st</sup> yr.	52	0.00	0.00	-0.963	0.338
		3 <sup>rd</sup> yr.	56	0.02	0.13		
16.	dispose of	1 <sup>st</sup> yr.	52	0.00	0.00	-2.057	0.044**
		3 <sup>rd</sup> yr.	56	0.07	0.26		
17.	occur to	1 <sup>st</sup> yr.	52	0.02	0.14	-2.178	0.033**
		3 <sup>rd</sup> yr.	56	0.13	0.33		
18.	link to	1 <sup>st</sup> yr.	52	0.13	0.34	-2.363	0.020**
		3 <sup>rd</sup> yr.	56	0.32	0.47		
19.	conform to	1 <sup>st</sup> yr.	52	0.00	0.00	-1.427	0.159
		3 <sup>rd</sup> yr.	56	0.04	0.19		
20.	recover from	1 <sup>st</sup> yr.	52	0.08	0.27	-2.058	0.042**
		3 <sup>rd</sup> yr.	56	0.21	0.41		
21.	sum up	1 <sup>st</sup> yr.	52	0.02	0.14	-3.963	0.000*
		3 <sup>rd</sup> yr.	56	0.27	0.45		

Table 31 (cont.)

Item No.	MWVs	Group	<i>n</i>	$\bar{X}$	<i>SD</i>	<i>t</i>	Sig.
22.	exclude from	1 <sup>st</sup> yr.	52	0.02	0.14	-1.630	0.107
		3 <sup>rd</sup> yr.	56	0.09	0.29		
23.	compensate for	1 <sup>st</sup> yr.	52	0.00	0.00	-1.427	0.159
		3 <sup>rd</sup> yr.	56	0.04	0.19		
24.	restore to	1 <sup>st</sup> yr.	52	0.02	0.14	-1.315	0.192
		3 <sup>rd</sup> yr.	56	0.07	0.26		
25.	reside in	1 <sup>st</sup> yr.	52	0.00	0.00	-	-
		3 <sup>rd</sup> yr.	56	0.00	0.00		
26.	quote as	1 <sup>st</sup> yr.	52	0.00	0.00	-	-
		3 <sup>rd</sup> yr.	56	0.00	0.00		
27.	intervene in	1 <sup>st</sup> yr.	52	0.00	0.00	-	-
		3 <sup>rd</sup> yr.	56	0.00	0.00		
28.	shift to	1 <sup>st</sup> yr.	52	0.00	0.00	-1.427	0.159
		3 <sup>rd</sup> yr.	56	0.04	0.19		
29.	file for	1 <sup>st</sup> yr.	52	0.00	0.00	-	-
		3 <sup>rd</sup> yr.	56	0.00	0.00		
30.	release from	1 <sup>st</sup> yr.	52	0.12	0.32	-3.485	0.001*
		3 <sup>rd</sup> yr.	56	0.39	0.49		
Total		1 <sup>st</sup> yr.	52	1.46	2.08	-5.303	0.000*
		3 <sup>rd</sup> yr.	56	4.93	4.39		

\* Statistically significant at  $p < 0.01$  \*\* Statistically significant at  $p < 0.05$

The differences between the scores for type PM (preposition + meaning) obtained by the first-year English majors and the third-year English majors for the following six multi-word verbs were statistically significant at  $p < 0.01$ : *consist of*, *concentrate on*, *participate in*, *focus on*, *sum up*, and *release from*.



The differences between the scores for type PM (preposition + meaning) obtained by the first-year English majors and the third-year English majors for the following ten multi-word verbs were statistically significant at  $p < 0.05$ : *contribute to*, *remove from*, *rely on*, *submit to*, *benefit from*, *coincide with*, *dispose of*, *occur to*, *link to*, and *recover from*.

Meanwhile, there was no statistically significant difference in type-M scores from the following ten multi-word verbs: *derive from*, *attribute to*, *adapt to*, *expose to*, *transform into*, *conform to*, *exclude from*, *compensate for*, *restore to*, and *shift to*.

It should be noted that the cases of which the t-test results could not be obtained including *reside in*, *quote as*, *intervene in*, and *file for* were due to the 0 point for these verb items gained by both groups of students. Due to the similarities of these results, it could be also interpreted that the differences between these two groups performance in the selection of prepositions and meanings for *reside in*, *quote as*, *intervene in*, and *file* were not significant.

### **Research findings for Research Question 2**

2. How do these learners use English multi-word verbs in their written sentences?

2.1 To what extent do they use the given verbs with the target prepositions in their written sentences?

2.2 If the English majors use the given verbs with the target prepositions, to what extent do they score from their written sentences?

**2.1 To what extent do they use the given verbs with the target prepositions in their written sentences?**

As displayed in Table 32, of the expected number of written sentences from a test of 30 items, the participating English majors tended to provide no responses, followed by using non-target preposition or none, and the target preposition after the provided verbs, respectively. Of the expected number of 1560 sentences written for 30 verb items by 52 students, the first-year English majors were found to provide no responses at 61.67%, followed by using non-target preposition or none at 29.42%, and using the target preposition after the provided verbs at 8.91%, respectively. Meanwhile,

of the expected number of 1680 sentences written for 30 verb items by 56 students, the third-year English majors were found to provide no responses at 44.94%, followed by using non-target preposition or none at 38.45%, and using the target preposition after the provided verbs at 16.61%, respectively. The percentages can be inferred that in students with higher years of study, the proportion of test items with no responses decreased, but the number of sentences in which the target prepositions were used became greater.

**Table 32** Frequencies of the use of the provided verbs with the target prepositions, with a non-target preposition or none, and with no written responses compared by students' university levels

Item	MWVs	group	n	Verb with target preposition		Verb with non-target preposition		No written responses	
				f	%	f	%	f	%
1	consist of	1 <sup>st</sup> -yr	52	11	21.15	15	28.85	26	50.00
		3 <sup>rd</sup> -yr	56	25	44.64	16	28.57	15	26.79
2	contribute to	1 <sup>st</sup> -yr	52	3	5.77	10	19.23	39	75.00
		3 <sup>rd</sup> -yr	56	21	37.50	24	42.86	11	19.64
3	remove from	1 <sup>st</sup> -yr	52	14	26.92	35	67.31	3	5.77
		3 <sup>rd</sup> -yr	56	15	26.79	41	73.21	0	0.00
4	derive from	1 <sup>st</sup> -yr	52	1	1.92	0	0.00	51	98.08
		3 <sup>rd</sup> -yr	56	5	8.93	6	10.71	45	80.36
5	concentrate on	1 <sup>st</sup> -yr	52	4	7.69	12	23.08	36	69.23
		3 <sup>rd</sup> -yr	56	9	16.07	29	51.79	18	32.14
6	participate in	1 <sup>st</sup> -yr	52	7	13.46	10	19.23	35	67.31
		3 <sup>rd</sup> -yr	56	20	35.71	25	44.64	11	19.64
7	rely on	1 <sup>st</sup> -yr	52	22	42.31	4	7.69	26	50.00
		3 <sup>rd</sup> -yr	56	25	44.64	7	12.50	24	42.86
8	focus on	1 <sup>st</sup> -yr	52	26	50.00	22	42.31	4	7.69
		3 <sup>rd</sup> -yr	56	48	85.71	8	14.29	0	0.00



Table 32 (cont.)

Item	MWVs	group	<i>n</i>	Verb with target preposition		Verb with non-target preposition		No written responses	
				<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
9	attribute to	1 <sup>st</sup> -yr	52	0	0.00	3	5.77	49	94.23
		3 <sup>rd</sup> -yr	56	3	5.36	5	8.93	48	85.71
10	submit to	1 <sup>st</sup> -yr	52	4	7.69	28	53.85	20	38.46
		3 <sup>rd</sup> -yr	56	6	10.71	40	71.43	10	17.86
11	adapt to	1 <sup>st</sup> -yr	52	4	7.69	37	71.15	11	21.15
		3 <sup>rd</sup> -yr	56	12	21.43	40	71.43	4	7.14
12	benefit from	1 <sup>st</sup> -yr	52	4	7.69	35	67.31	13	25.00
		3 <sup>rd</sup> -yr	56	6	10.71	37	66.07	13	23.21
13	coincide with	1 <sup>st</sup> -yr	52	0	0.00	0	0.00	52	100.00
		3 <sup>rd</sup> -yr	56	1	1.79	4	7.14	51	91.07
14	expose to	1 <sup>st</sup> -yr	52	1	1.92	12	23.08	39	75.00
		3 <sup>rd</sup> -yr	56	3	5.36	17	30.36	36	64.29
15	transform into	1 <sup>st</sup> -yr	52	1	1.92	29	55.77	22	42.31
		3 <sup>rd</sup> -yr	56	4	7.14	38	67.86	14	25.00
16	dispose of	1 <sup>st</sup> -yr	52	1	1.92	0	0.00	51	98.08
		3 <sup>rd</sup> -yr	56	4	7.14	12	21.43	40	71.43
17	occur to	1 <sup>st</sup> -yr	52	1	1.92	40	76.92	11	21.15
		3 <sup>rd</sup> -yr	56	3	5.36	41	73.21	12	21.43
18	link to	1 <sup>st</sup> -yr	52	17	32.69	26	50.00	9	17.31
		3 <sup>rd</sup> -yr	56	23	41.07	29	51.79	4	7.14
19	conform to	1 <sup>st</sup> -yr	52	2	3.85	5	9.62	45	86.54
		3 <sup>rd</sup> -yr	56	1	1.79	5	8.93	50	89.29
20	recover from	1 <sup>st</sup> -yr	52	4	7.69	27	51.92	21	40.38
		3 <sup>rd</sup> -yr	56	14	25.00	28	50.00	14	25.00
21	sum up	1 <sup>st</sup> -yr	52	1	1.92	7	13.46	44	84.62
		3 <sup>rd</sup> -yr	56	12	21.43	23	41.07	21	37.50

Table 32 (cont.)

Item	MWVs	group	<i>n</i>	Verb with target preposition		Verb with non-target preposition		No written responses	
				<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
22	exclude from	1 <sup>st</sup> -yr	52	2	3.85	5	9.62	45	86.54
		3 <sup>rd</sup> -yr	56	0	0.00	12	21.43	44	78.57
23	compensate for	1 <sup>st</sup> -yr	52	0	0.00	0	0.00	52	100.00
		3 <sup>rd</sup> -yr	56	1	1.79	5	8.93	50	89.29
24	restore to	1 <sup>st</sup> -yr	52	0	0.00	26	50.00	26	50.00
		3 <sup>rd</sup> -yr	56	4	7.14	39	69.64	13	23.21
25	reside in	1 <sup>st</sup> -yr	52	2	3.85	0	0.00	50	96.15
		3 <sup>rd</sup> -yr	56	2	3.57	7	12.50	47	83.93
26	quote as	1 <sup>st</sup> -yr	52	0	0.00	12	23.08	40	76.92
		3 <sup>rd</sup> -yr	56	0	0.00	22	39.29	34	60.71
27	intervene in	1 <sup>st</sup> -yr	52	0	0.00	2	3.85	50	96.15
		3 <sup>rd</sup> -yr	56	0	0.00	7	12.50	49	87.50
28	shift to	1 <sup>st</sup> -yr	52	3	5.77	7	13.46	42	80.77
		3 <sup>rd</sup> -yr	56	11	19.64	20	35.71	25	44.64
29	file for	1 <sup>st</sup> -yr	52	0	0.00	20	38.46	32	61.54
		3 <sup>rd</sup> -yr	56	0	0.00	16	28.57	40	71.43
30	release from	1 <sup>st</sup> -yr	52	4	7.69	30	57.69	18	34.62
		3 <sup>rd</sup> -yr	56	1	1.79	43	76.79	12	21.43
Total		1 <sup>st</sup> -yr	1560	139	8.91	459	29.42	962	61.67
		3 <sup>rd</sup> -yr	1680	279	16.61	646	38.45	755	44.94

Based on the numerical evidence, the third-year English majors ( $f = 279$ , 16.61%) tended to use the provided verbs with the target prepositions more frequently than first-year English majors ( $f = 139$ , 8.91%). The Chi-square test was applied to test the differences in three types of responses of two groups of students. The results indicated that there were statistically significant differences in the use of thirteen verbs in the sentence building test by first-year and third-year English majors as shown



in Table 33. These were: *consist of* ( $\chi^2 = 8.291$ ,  $p = 0.016$ ), *contribute to* ( $\chi^2 = 34.844$ ,  $p = 0.000$ ), *derive from* ( $\chi^2 = 8.906$ ,  $p = 0.012$ ), *concentrate on* ( $\chi^2 = 14.844$ ,  $p = 0.001$ ), *participate in* ( $\chi^2 = 25.096$ ,  $p = 0.000$ ), *focus on* ( $\chi^2 = 16.949$ ,  $p = 0.000$ ), *adapt to* ( $\chi^2 = 7.245$ ,  $p = 0.027$ ), *dispose of* ( $\chi^2 = 15.002$ ,  $p = 0.001$ ), *recover from* ( $\chi^2 = 6.835$ ,  $p = 0.033$ ), *sum up* ( $\chi^2 = 25.867$ ,  $p = 0.000$ ), *restore to* ( $\chi^2 = 10.800$ ,  $p = 0.005$ ), *reside in* ( $\chi^2 = 6.954$ ,  $p = 0.031$ ), and *shift to* ( $\chi^2 = 15.017$ ,  $p = 0.001$ ).

**Table 33 Differences in the responses to the sentence building test by first-year and third-year English majors**

Item	MWVs	Chi-Square values	P value
1	consist of	8.291	0.016*
2	contribute to	34.844	0.000*
3	remove from	3.365	0.186
4	derive from	8.906	0.012*
5	concentrate on	14.844	0.001*
6	participate in	25.096	0.000*
7	rely on	0.943	0.624
8	focus on	16.949	0.000*
9	attribute to	3.367	0.186
10	submit to	5.711	0.058
11	adapt to	7.245	0.027*
12	benefit from	0.308	0.857
13	coincide with	4.868	0.088
14	expose to	1.836	0.399
15	transform into	4.645	0.098
16	dispose of	15.002	0.001*
17	occur to	0.909	0.635
18	link to	2.842	0.241
19	conform to	0.449	0.799
20	recover from	6.835	0.033*

Table 33 (cont.)

Item	MWVs	Chi-Square values	P value
21	sum up	25.867	0.000*
22	exclude from	4.752	0.093
23	compensate for	5.899	0.052
24	restore to	10.800	0.005*
25	reside in	6.954	0.031*
26	quote as	3.284	0.070
27	intervene in	2.643	0.104
28	shift to	15.017	0.001*
29	file for	1.187	0.276
30	release from	5.174	0.075

\*statistically significant at  $p < 0.05$

## 2.2 If the English majors use the given verbs with the target prepositions, to what extent do they score from their written sentences?

The written sentences in which the given verbs were used with the target prepositions were scored by two native speakers of English, and the average score for each sentence was calculated for further analyses. The sum of average scores for all sentences written for each verb item indicated an overall ability to use that multi-word verb in written sentences of a group of students. As the total score of a written sentence equaled two, the total scores for individual verb items were from the number of sentences written using the provided verbs with the target prepositions, multiplied by two.

Tables 34 and 35 displays the extent to which the first-year English majors and the third-year English majors scored from their written sentences in which the provided verbs were used with the target prepositions, ranked in order. Hence, the sum of the scores for individual verb items normally depends on the number of sentences in which the provided verbs were used with the target prepositions.



**Table 34** The overall scores of all sentences with the verbs and target prepositions used, written by first-year English majors ( $n = 52$ )

Rank	MWVs	<i>f</i> of sentences with the target preposition	Total scores ( $f \times 2$ )	Total scores earned	% of total scores earned /total scores
1	focus on	26	52	40.00	76.92
2	rely on	22	44	24.00	54.55
3	link to	17	34	20.00	58.82
4	remove from	14	28	19.50	69.64
5	consist of	11	22	9.00	40.91
6	concentrate on	4	8	8.00	100.00
7	participate in	7	14	7.50	53.57
8	submit to	4	8	4.50	56.25
9	adapt to	4	8	4.00	50.00
10	recover from	4	8	4.00	50.00
11	release from	4	8	4.00	50.00
12	shift to	3	6	3.50	58.33
13	benefit from	4	8	2.00	25.00
14	reside in	2	4	2.00	50.00
15	sum up	1	2	2.00	100.00
16	derive from	1	2	1.50	75.00
17	contribute to	3	6	1.00	16.67
18	exclude from	2	4	1.00	25.00
19	transform into	1	2	1.00	50.00
20	dispose of	1	2	1.00	50.00
21	expose to	1	2	0.50	35.00
22	conform to	2	4	0.00	0
23	occur to	1	2	0.00	0

Table 34 (cont.)

Rank	MWVs	<i>f</i> of sentences with the target preposition	Total scores ( <i>f</i> x 2)	Total scores earned	% of total scores earned /total scores
24	attribute to	0	0	0.00	0
25	coincide with	0	0	0.00	0
26	compensate for	0	0	0.00	0
27	restore to	0	0	0.00	0
28	quote as	0	0	0.00	0
29	intervene in	0	0	0.00	0
30	file for	0	0	0.00	0
	Total	139	278	160	57.55

As seen in Table 34, generally, the total scores the first-year English majors earned largely depended on the number of sentences in which the provided verbs were used with the target prepositions. Ranged by the total raw scores earned, the first-year English majors scored from sentences written for *focus on* (40.00, 76.92%), followed by *rely on* (24.00, 54.55%), *link to* (20.00, 58.82%), *remove from* (19.50, 69.64%), *consist of* (9.00, 40.91%), *concentrate on* (8.00, 100%), *participate in* (7.50, 53.57%), *submit to* (4.50, 56.25%), *adapt to* (4.00, 50%), *recover from* (4.00, 50%), *release from* (4.00, 50%), *shift to* (3.50, 58.33%), *benefit from* (2.00, 25%), *reside in* (2.00, 50%), *sum up* (2.00, 100%), *derive from* (1.50, 75%), *contribute to* (1.00, 16.67%), *exclude from* (1.00, 25%), *transform into* (1.00, 50%), *dispose of* (1.00, 50%), and *expose to* (0.50, 35%), respectively. While they could not score from sentences written for *conform to* and *occur to*, they did not write any sentences for *attribute to*, *coincide with*, *compensate for*, *restore to*, *quote as*, and *intervene in*.



**Table 35** The overall scores of all sentences with the verbs and target prepositions used, written by third-year English majors ( $n = 56$ )

Rank	MWVs	<i>f</i> of students	Total score ( $f \times 2$ )	Total score earned	% of total score earned/total score
		using the target preposition			
1	focus on	48	96	86.00	89.58
2	participate in	20	40	30.50	76.25
3	rely on	25	50	30.00	60.00
4	consist of	25	50	29.00	58.00
5	link to	23	46	22.00	47.83
6	recover from	14	28	20.00	71.43
7	remove from	15	30	18.75	62.50
8	sum up	12	24	16.00	66.67
9	adapt to	12	24	14.00	58.33
10	concentrate on	9	18	14.00	77.78
11	contribute to	21	42	13.50	32.14
12	submit to	6	12	9.00	75.00
13	shift to	11	22	7.00	31.82
14	transform into	4	8	6.00	75.00
15	derive from	5	10	5.00	50.00
16	dispose of	4	8	4.50	56.25
17	benefit from	6	12	4.00	33.33
18	expose to	3	6	3.50	58.33
19	reside in	2	4	3.50	87.50
20	restore to	4	8	3.00	37.50
21	conform to	1	2	2.00	100.00
22	compensate for	1	2	2.00	100.00
23	release from	1	2	1.00	50.00

Table 35 (cont.)

Rank	MWVs	f of students using the target preposition	Total score (f x 2)	Total score earned	% of total score earned/total score
24	attribute to	3	6	0	0
25	occur to	3	6	0	0
26	coincide with	1	2	0	0
27	exclude from	0	0	0	0
28	quote as	0	0	0	0
29	intervene in	0	0	0	0
30	file for	0	0	0	0
	Total	279	558	344.25	61.69

Table 35 illustrates the scores which the third-year English majors obtained from their written sentences ranged by the total raw scores earned. In general, the total scores obtained by the third-year English majors depended largely on the number of sentences in which the provided verbs were used with the target prepositions. Ranged by the total raw scores earned, this group of students scored from *focus on* (86.00, 89.58%), followed by *participate in* (30.50, 76.25%), *rely on* (30.00, 60.00%), *consist of* (29.00, 58.00%), *link to* (22.00, 47.83%), *recover from* (20.00, 71.43%), *remove from* (18.75, 62.50%), *sum up*, (16.00, 66.67%), *adapt to* (14.00, 58.33%), *concentrate on* (14.00, 77.78%), *contribute to* (13.50, 32.14%), *submit to* (9.00, 75.00%), *shift to* (7.00, 31.82%), *restore to* (6.00, 75.00%), *transform into* (6.00, 75.00%), *derive from* (5.00, 50%), *dispose of* (4.50, 56.25%), *benefit from* (4.00, 33.33%), *expose to* (3.50, 58.33%), *reside in* (3.50, 87.50%), *conform to* (2.00, 100.00%), *compensate for* (2.00, 100.00%), and *release from* (2.00, 50.00%).

On the other hand, while they could not score from sentences written for *attribute to*, *occur to*, and *coincide with*, they did not write any sentences for *exclude from*, *quote as*, *intervene in*, and *file for*.



### Research findings for Research Question 3

3. What are the sources of errors in their use of English multi-word verbs?

3.1 What are students' variations of prepositions used with the target verbs?

3.2 Are there any variations of verb + preposition collocations influenced by the interlingual transfer?

3.3 Are there any variations of verb + preposition collocations influenced by the intralingual transfer?

**3.1 What are students' variations of prepositions used with the target verbs?**

The answers from the test of multi-word verbs in the sentence completion task which requested the respondents to use the provided verbs with any other words they feel necessary were tabulated as seen in Tables 36 and 37. The variations of responses which were recorded included: use of the provided verb without a preposition in Table 36 and use of the provided verb with a variety of prepositions which were not the target ones in Table 37.

**Table 36 Use of the provided verbs without a preposition**

Rank	Target MWV	1 <sup>st</sup> yr	3 <sup>rd</sup> yr	Item No.	Target MWV	1 <sup>st</sup> yr	3 <sup>rd</sup> yr
		<i>f</i>	<i>f</i>			<i>f</i>	<i>f</i>
1	recover	37	29	16	compensate	28	28
2	benefit	36	26	17	quoted	28	28
3	contribute	34	35	18	consist	28	17
4	transform	34	22	19	derived	27	28
5	participate	33	27	20	exclude	27	23
6	concentrate	33	23	21	submit	27	20
7	occur	33	20	22	sum	27	20
8	restored	32	30	23	focus	27	10
9	remove	32	20	24	shift	26	37
10	adapt	31	29	25	coincide	26	24
11	released	31	23	26	filed	26	23
12	attribute	31	22	27	conform	24	26

Table 36 (cont.)

Rank	Target MWV	1 <sup>st</sup> yr <i>f</i>	3 <sup>rd</sup> yr <i>f</i>	Item No.	Target MWV	1 <sup>st</sup> yr <i>f</i>	3 <sup>rd</sup> yr <i>f</i>
13	exposed	31	21	28	intervene	24	21
14	link	30	23	29	reside	20	25
15	dispose	29	28	30	rely	18	12

Both the first-year and the third-year English majors were found to use the provided verbs without a preposition far more frequently than using them with a preposition which is not a target one. Generally, the frequencies of using the provided verbs without a preposition were higher in first-year students than in third-year students in most verb items. These were: *recover* (37:29), *benefit* (36:26), *transform* (34:22), *participate* (33:27), *concentrate* (33:23), *occur* (33:20), *restore* (32:30), *remove* (32:20), *adapt* (31:29), *release* (31:23), *attribute* (31:22), *expose* (31:21), *link* (30:23), *dispose* (29:28), *consist* (28:17), *exclude* (27:23), *submit* (27:20), *sum up* (27:20), *focus* (27:10), *coincide* (26:24), *file* (26:23), *intervene* (24:21), and *rely* (18:12). For the other verb items, the frequencies of using the provided verbs without a preposition in the first-year English majors were less than those of the third-year English majors or equaled. These included: *contribute* (34:35), *derive* (27:28), *shift* (26:37), *conform* (24:26), *reside* (20:25), *compensate* (28:28), and *quote* (28:28).

Table 37 Use of the provided verbs with a variety of prepositions which were not the target ones

rank	non-target preposition	provided verbs	1st yr	3rd yr	Total
1	to	transform	11	23	34
		benefit	3	10	13
		reside	6	2	8
		exclude	4	3	7



Table 37 (cont.)

rank	non-target	provided verbs	1st yr	3rd yr	Total
		coincide	3	4	7
		concentrate	3	4	7
		intervene	3	4	7
		derive	3	3	6
		remove	3	2	5
		sum	3	2	5
		file	2	3	5
		quote	2	3	5
		recover	2	3	5
		dispose	1	3	4
		participate	1	3	4
		release	1	2	3
		consist	1	1	2
		rely	0	1	1
		Total	52	76	128
2	with	link	6	12	18
		occur	4	12	16
		participate	1	5	6
		adapt	2	3	5
		benefit	1	4	5
		expose	1	4	5
		file	1	3	4
		concentrate	0	4	4
		sum	2	0	2
		conform	1	1	2
		derive	1	1	2
		restore	1	1	2
		consist	0	2	2
		dispose	0	1	1

Table 37 (cont.)

rank	non-target	provided verbs	1st yr	3rd yr	Total
		exclude	0	1	1
		intervene	0	1	1
		quote	0	1	1
		submit	0	1	1
		Total	21	57	78
3	in	rely	0	11	11
		contribute	6	1	7
		occur	4	2	6
		restore	4	2	6
		adapt	4	0	4
		coincide	3	1	4
		compensate	2	2	4
		submit	2	2	4
		sum	2	1	3
		concentrate	1	2	3
		conform	1	2	3
		remove	1	2	3
		benefit	1	1	2
		dispose	1	1	2
		focus	1	1	2
		quote	0	2	2
		file	1	0	1
		link	1	0	1
		release	1	0	1
		shift	1	0	1
		derive	0	1	1
		expose	0	1	1
		Total	37	35	72



Table 37 (cont.)

rank	non-target	provided verbs	1st yr	3rd yr	Total
4	on	occur	5	6	11
		attribute	1	3	4
		exclude	1	3	4
		file	2	1	3
		quote	1	2	3
		benefit	2	0	2
		consist	2	0	2
		derive	2	0	2
		expose	2	0	2
		shift	2	0	2
		compensate	1	1	2
		submit	1	1	2
		participate	0	2	2
		remove	0	2	2
		adapt	1	0	1
		release	1	0	1
		transform	1	0	1
		contribute	0	1	1
		recover	0	1	1
		reside	0	1	1
		Total	25	24	49
5	from	attribute	0	7	7
		restore	1	3	4
		expose	0	4	4
		quote	2	1	3
		submit	1	2	3
		shift	1	1	2
		file	0	2	2

Table 37 (cont.)

rank	non-target	provided verbs	1st yr	3rd yr	Total
5	from	adapt	0	1	1
		conform	0	1	1
		sum	0	1	1
		Total	5	23	28
6	of	exclude	1	1	2
		reside	1	1	2
		adapt	0	2	2
		benefit	0	2	2
		intervene	0	2	2
		coincide	1	0	1
		focus	1	0	1
		transform	1	0	1
		compensate	0	1	1
		conform	0	1	1
		file	0	1	1
		participate	0	1	1
		quote	0	1	1
		release	0	1	1
		restore	0	1	1
		sum	0	1	1
		Total	5	16	21
7	for	benefit	4	1	5
		restore	0	4	4
		adapt	1	2	3
		reside	1	1	2
		exclude	0	2	2
		participate	1	0	1
		derive	0	1	1
		Total	7	11	18



Table 37 (cont.)

rank	non-target preposition	provided verbs	1st yr	3rd yr	Total
8	by	quote	2	2	4
		submit	1	3	4
		expose	0	3	3
		remove	1	1	2
		link	1	0	1
		occur	1	0	1
		restore	0	1	1
		Total	6	10	16
9	into	coincide	1	2	3
		contribute	0	2	2
		intervene	0	1	1
		occur	0	1	1
		shift	0	1	1
		Total	1	7	8
10	about	sum	0	2	2
		concentrate	1	0	1
		consist	1	0	1
		conform	0	1	1
		quote	0	1	1
		submit	0	1	1
		Total	2	5	7
11	out	remove	1	2	3
		file	0	1	1
		recover	0	1	1
		release	0	1	1
		shift	0	1	1
		Total	1	6	7

Table 37 (cont.)

rank	non-target preposition	provided verbs	1st yr	3rd yr	Total
12	at	benefit	1	0	1
		intervene	1	0	1
		recover	1	0	1
		reside	1	0	1
		restore	1	0	1
		submit	1	0	1
		Total	6	0	6
13	between	adapt	1	0	1
		link	0	1	1
		Total	1	1	2
14	off	consist	0	1	1
		exclude	0	1	1
		Total	0	2	2

Fourteen non-target prepositions were used after the provided verbs by the two groups of participants as shown in Table 37. As ranked by the frequencies of occurrences, these prepositions included: *to* ( $f = 128$ ), *with* ( $f = 78$ ), *in* ( $f = 72$ ), *on* ( $f = 49$ ), *from* ( $f = 28$ ), *of* ( $f = 21$ ), *for* ( $f = 18$ ), *by* ( $f = 16$ ), *into* ( $f = 8$ ), *about* ( $f = 7$ ), *out* ( $f = 7$ ), *at* ( $f = 6$ ), *between* ( $f = 2$ ), and *off* ( $f = 2$ ).

The results demonstrated that the third-year English majors tended to use different non-target prepositions with the provided verbs greater than the first-year English majors. These prepositions included: *to* (76:52), *with* (51:27), *from* (23:5), *of* (16:5), *for* (11:7), *by* (10:6), *into* (7:1), *about* (5:2), *out* (6:1), and *off* (2:0). On the other way around, the first-year English majors' frequencies were greater in the use of *in* (37:35), *on* (25:24), *at* (6:0), and equaled in the use of *between* (1:1).

In addition, as seen in Table 37, ranged by frequency of use, individual prepositions were applied to the lists of verbs by the two groups of participants as follows:



**To:** *To* was more frequently used with various given verbs by the third-year English majors ( $f = 76$ ) than by the first-year English majors ( $f = 52$ ). While *to* was used far more frequently with the verb *transform* (23:11) and *benefit* (10:3) by the third-year English majors than by the first-year English majors, it was more frequently used with the verb *reside* (2:6) by the first-year students. For other verbs including *exclude*, *coincide*, *concentrate*, *intervene*, *derive*, *remove*, *sum*, *file*, *quote*, *recover*, *dispose*, *participate*, *release*, *consist*, and *rely*, their occurrences with *to* in two groups of students were not very different as the gap was not larger than two.

**With:** *With* was more frequently used with various given verbs by the third-year English majors ( $f = 57$ ) than by the first-year English majors ( $f = 21$ ). It was used more frequently with the verb *link* (12:6), *occur* (12:4), *participate* (5:1), *benefit* (4:1), *expose* (4:1), and *concentrate* (4:0) by the third-year English majors than by the first-year English majors. For other verbs including *adapt*, *file*, *sum*, *conform*, *derive*, *restore*, *consist*, *dispose*, *exclude*, *intervene*, *quote*, and *submit*, their occurrences with *with* in two groups of students were not very different as the gap was not larger than two.

**In:** *In* was a frequently used preposition applied to various given verbs by both groups of participants (35:37). While *in* was used far more frequently with the verb *rely* (11:0) by the third-year English majors than by the first-year English majors, it was more frequently used with the verb *contribute* (1:6) and *adapt* (0:4) by the first-year students. For other verbs including *occur*, *restore*, *coincide*, *compensate*, *submit*, *sum*, *concentrate*, *conform*, *remove*, *benefit*, *dispose*, *focus*, *quote*, *file*, *link*, *release*, *shift*, *derive*, and *expose*, their occurrences with *in* in two groups of students were not very different as the gap was not larger than two.

**On:** *On* was a frequently used preposition applied to various given verbs by both groups of participants (24:25). It was most frequently used with the verb *occur* (6:5) by both the third-year English majors and the first-year English majors. Generally, for the verbs including *occur*, *attribute*, *exclude*, *file*, *quote*, *benefit*, *consist*, *derive*, *expose*, *shift*, *compensate*, *submit*, *participate*, *remove*, *adapt*, *release*, *transform*, *contribute*, *recover*, and *reside*, their occurrences with *on* in two groups of students were not very different as the gap was not larger than two.

**From:** *From* was more frequently used with various given verbs by the third-year English majors ( $f = 23$ ) than by the first-year English majors ( $f = 5$ ). It was used with the verb *attribute* (7:0) and *expose* (4:0) only by the third-year English majors. For other verbs including *restore*, *quote*, *submit*, *shift*, *file*, *adapt*, *conform* and *sum*, their occurrences with *from* in two groups of students were not very different as the gap was not larger than two.

**Of:** *Of* was more frequently used with various given verbs by the third-year English majors ( $f = 16$ ) than by the first-year English majors ( $f = 5$ ). For the verbs including *exclude*, *reside*, *adapt*, *benefit*, *intervene*, *coincide*, *focus*, *transform*, *compensate*, *conform*, *file*, *participate*, *quote*, *release*, *restore*, and *sum*, their occurrences with *of* in two groups of students were not very different as the gap was not larger than two.

**For:** *For* was more frequently used with various given verbs by the third-year English majors ( $f = 11$ ) than by the first-year English majors ( $f = 7$ ). While it was used more frequently with the verb *restore* (4:0) by the third-year English majors than by the first-year English majors, it was more frequently used with the verb *benefit* (1:4) by the first-year students. For other verbs including *adapt*, *reside*, *exclude*, *participate*, and *derive*, their occurrences with *for* in two groups of students were not very different as the gap was not larger than two.

**By:** *By* was more frequently used with various given verbs by the third-year English majors ( $f = 10$ ) than by the first-year English majors ( $f = 6$ ). For the verbs including *quote*, *submit*, *expose*, *remove*, *link*, *occur*, and *restore*, their occurrences with *by* in two groups of students were not very different as the gap was not larger than two.

**Into:** *Into* was more frequently used with various given verbs by the third-year English majors ( $f = 7$ ) than by the first-year English majors ( $f = 1$ ). For the verbs including *coincide*, *contribute*, *intervene*, *occur*, and *shift*, their occurrences with *into* in two groups of students were not very different as the gap was not larger than two.

**About:** *About* was more frequently used with various given verbs by the third-year English majors ( $f = 5$ ) than by the first-year English majors ( $f = 2$ ). For the verbs including *sum*, *concentrate*, *consist*, *conform*, *quote*, and *submit*, their occurrences with *about* in two groups of students were not very different as the gap was not larger than two.



**Out:** *Out* was more frequently used with various given verbs by the third-year English majors ( $f = 6$ ) than by the first-year English majors ( $f = 1$ ). For the verbs including *remove*, *file*, *recover*, *release*, and *shift*, their occurrences with *out* in two groups of students were not very different as the gap was not larger than two.

**At:** *At* was only used by the first-year English majors ( $f = 6$ ) with the verbs including *benefit*, *intervene*, *recover*, *reside*, *restore*, and *submit*.

**Between:** *Between* was used by one first-year student with the verb *adapt* and by one third-year student with the verb *link*.

**Off:** *Off* was used by two third-year students with the verb *consist* and *exclude*.

The variations of responses for the individual verbs used by two groups of students were reported in Tables 38-67 sequenced by the order of test items.

**Table 38 Variations of responses for the verb *consist***

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
1	consist (of)	x	28	17	55
		with	0	2	2
		on	2	0	2
		to	1	1	2
		about	1	0	1
		off	0	1	1

### ***Consist (of)***

Both groups of students used *consist* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 28$ ) tended to use *consist* without a preposition more frequently than the third-year English majors ( $f = 17$ ). Meanwhile, five prepositions including *with*, *on*, *to*, *about*, and *off* were found to be used by these students differently. As Table 38 displayed, *with* was used by two third-year students, *on* was used by two first-year students, *to* was used by one first-

year student and one third-year student, *about* was used by one first-year student, and *off* was used by one third-year student.

**Table 39 Variations of responses for the verb *contribute***

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
2	contribute (to)	x	34	35	69
		in	6	1	7
		into	0	2	2
		on	0	1	1

***Contribute (to)***

Both groups of students used *contribute* without a preposition way more frequently than with a non-target preposition. The third-year English majors ( $f = 35$ ) tended to use *contribute* without a preposition more frequently than the first-year English majors ( $f = 34$ ). Meanwhile, three prepositions including *in*, *into*, and *on* were found to be used by these students differently. As Table 39 displayed, *in* was used by six first-year students and one third-year student, *into* was used by two third-year students, and *on* was used by one third-year student.

**Table 40 Variations of responses for the verb *remove***

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
3	remove (from)	x	32	20	52
		to	3	2	5
		out	1	2	3
		in	1	2	3
		by	1	1	2
		on	0	2	2



*Remove (from)*

Both groups of students used *remove* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 32$ ) tended to use *remove* without a preposition more frequently than the third-year English majors ( $f = 20$ ). Meanwhile, five prepositions including *to*, *out*, *in*, *by*, and *on* were found to be used by these students differently. As Table 40 displayed, *to* was used by three first-year students and two third-year students, *out* and *in* were used by one first-year student and two third-year students, *by* was used by one first-year student and one third-year student, and *on* was used by two third-year students.

**Table 41 Variations of responses for the verb *derive***

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
4	derive (from)	x	27	28	55
		to	3	3	6
		with	1	1	2
		on	2	0	2
		for	0	1	1
		in	0	1	1

*Derive (from)*

Both groups of students used *derive* without a preposition way more frequently than with a non-target preposition. The third-year English majors ( $f = 28$ ) tended to use *derive* without a preposition more frequently than the first-year English majors ( $f = 27$ ). Meanwhile, five prepositions including *to*, *with*, *on*, *for*, and *in* were found to be used by these students differently. As Table 41 displayed, *to* was used by three first-year students and three third-year students, *with* was used by one first-year student and one third-year student, *on* was used by two first-year students, and *for* and *in* were used by one third-year student.

**Table 42 Variations of responses for the verb *concentrate***

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
5	concentrate (on)	x	33	23	56
		to	3	4	7
		with	0	4	4
		in	1	2	3
		about	1	0	1

***Concentrate (on)***

Both groups of students used *concentrate* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 33$ ) tended to use *concentrate* without a preposition more frequently than the third-year English majors ( $f = 23$ ). Meanwhile, four prepositions including *to*, *with*, *in*, and *about* were found to be used by these students differently. As Table 42 displayed, *to* was used by three first-year students and four third-year students, *with* was used by four third-year students and, *in* was used by one first-year student and two third-year students, and *about* was used by one first-year student.

**Table 43 Variations of responses for the verb *participate***

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
6	participate (in)	x	33	27	60
		with	1	5	6
		to	1	3	4
		on	0	2	2
		for	1	0	1
		of	0	1	1



### *Participate (in)*

Both groups of students used *participate* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 33$ ) tended to use *participate* without a preposition more frequently than the third-year English majors ( $f = 27$ ). Meanwhile, five prepositions including *with*, *to*, *on*, *for*, and *of* were found to be used by these students differently. As Table 43 displayed, *with* was used by one first-year student and five third-year students, *to* was used by one first-year student and three third-year students, *on* was used by two third-year students, *for* was used by one first-year student, and *of* was used by one third-year student.

**Table 44 Variations of responses for the verb *rely***

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
7	rely (on)	x	18	12	30
		in	0	11	11
		to	0	1	1

### *Rely (on)*

Both groups of students used *rely* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 18$ ) tended to use *rely* without a preposition more frequently than the third-year English majors ( $f = 12$ ). Meanwhile, two prepositions including *in* and *to* were found to be used by eleven third-year students and one third-year student, respectively.

**Table 45 Variations of responses for the verb *focus***

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
8	focus (on)	x	27	10	37
		in	1	1	2
		of	1	0	1

*Focus (on)*

Both groups of students used *focus* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 27$ ) tended to use *focus* without a preposition more frequently than the third-year English majors ( $f = 10$ ). Meanwhile, two prepositions including *in* and *of* were found to be used by one student from each level and one first-year student, respectively.

Table 46 Variations of responses for the verb *attribute*

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
9	attribute (to)	x	31	22	53
		from	0	7	7
		on	1	3	4

*Attribute (to)*

Both groups of students used *attribute* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 31$ ) tended to use *attribute* without a preposition more frequently than the third-year English majors ( $f = 22$ ). Meanwhile, two prepositions including *from* and *on* were found to be used by seven third-year students and one first-year and three third-year students, respectively.

Table 47 Variations of responses for the verb *submit*

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
10	submit (to)	x	27	20	47
		in	2	2	4
		by	1	3	4



Table 47 (cont.)

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
		from	1	2	3
		on	1	1	2
		at	1	0	1
		with	0	1	1
		about	0	1	1

***Submit (to)***

Both groups of students used *submit* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 27$ ) tended to use *submit* without a preposition more frequently than the third-year English majors ( $f = 20$ ). Meanwhile, seven prepositions including *in*, *by*, *from*, *on*, *at*, *with*, and *about* were found to be used by these students differently. As Table 47 displayed, *in* was used by two first-year students and two third-year students, *by* was used by one first-year student and three third-year students, *from* was used by one first-year student and two third-year students, *on* was used by one first-year student and one third-year student, *at* was used by one first-year student, and *with* and *about* were used by one third-year student.

Table 48 Variations of responses for the verb *adapt*

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
11	adapt (to)	x	31	29	60
		with	2	3	5
		in	4	0	4
		for	1	2	3
		of	0	2	2

Table 48 (cont.)

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
		on	1	0	1
		between	1	0	1
		from	0	1	1

*Adapt (to)*

Both groups of students used *adapt* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 31$ ) tended to use *adapt* without a preposition more frequently than the third-year English majors ( $f = 29$ ). Meanwhile, seven prepositions including *with*, *in*, *for*, *of*, *on*, *between*, and *from* were found to be used by these students differently. As Table 48 displayed, *with* was used by two first-year students and three third-year students, *in* was used by four first-year students, *for* was used by one first-year student and two third-year students, *of* was used by two third-year students, *on* and *between* were used by one first-year student, and *from* was used by one third-year student.

Table 49 Variations of responses for the verb *benefit*

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
12	benefit (from)	x	36	26	62
		to	3	10	13
		for	4	1	5
		with	1	4	5
		in	1	1	2
		of	0	2	2
		on	2	0	2
		at	1	0	1



### *Benefit (from)*

Both groups of students used *benefit* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 36$ ) tended to use *benefit* without a preposition more frequently than the third-year English majors ( $f = 26$ ). Meanwhile, seven prepositions including *to*, *for*, *with*, *in*, *of*, *on*, and *at* were found to be used by these students differently. As Table 49 displayed, *to* was used by three first-year students and ten third-year students, *for* was used by four first-year students and one third-year student, *with* was used by one first-year student and four third-year students, *in* was used by one first-year student and one third-year student, *of* was used by two third-year students, *on* was used by two first-year students, and *at* was used by one first-year student.

**Table 50** Variations of responses for the verb *coincide*

tem No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
13	coincide (with)	x	26	24	50
		to	3	4	7
		in	3	1	4
		into	1	2	3
		of	1	0	1

### *Coincide (with)*

Both groups of students used *coincide* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 26$ ) tended to use *coincide* without a preposition more frequently than the third-year English majors ( $f = 24$ ). Meanwhile, four prepositions including *to*, *in*, *into*, and *of* were found to be used or by these students differently. As Table 50 displayed, *to* was used by three first-year students and four third-year students, *in* was used by three first-year students and one third-year student, *into* was used by one first-year student and two third-year students, and *of* was used by one first-year student.

Table 51 Variations of responses for the verb *expose*

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
14	expose (to)	x	31	21	52
		with	1	4	5
		from	0	4	4
		by	0	3	3
		on	2	0	2
		in	0	1	1

*Expose (to)*

Both groups of students used *expose* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 31$ ) tended to use *expose* without a preposition more frequently than the third-year English majors ( $f = 21$ ). Meanwhile, five prepositions including *with*, *from*, *by*, *on*, and *in* were found to be used by these students differently. As Table 51 displayed, *with* was used by one first-year student and four third-year students, *from* was used by four third-year students, *by* was used by three third-year students, *on* was used by two first-year students, and *in* was used by one third-year student.

Table 52 Variations of responses for the verb *transform*

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
15	transform (into)	x	34	22	56
		to	11	23	34
		of	1	0	1
		on	1	0	1



### *Transform (into)*

Both groups of students used *transform* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 34$ ) tended to use *transform* without a preposition more frequently than third-year English majors ( $f = 22$ ). Meanwhile, three prepositions including *to*, *of*, and *on* were found to be used by these students differently. As Table 52 displayed, *to* was used by 11 first-year students and 23 third-year students, and *of* and *on* were used by one first-year student.

**Table 53 Variations of responses for the verb *dispose***

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
16	dispose (of)	x	29	28	57
		to	1	3	4
		in	1	1	2
		with	0	1	1

### *Dispose (of)*

Both groups of students used *dispose* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 29$ ) tended to use *dispose* without a preposition more frequently than the third-year English majors ( $f = 28$ ). Meanwhile, three prepositions including *to*, *in*, and *with* were found to be used by these students differently. As Table 53 displayed, *to* was used by one first-year student and three third-year students, *in* was used by one first-year student and one third-year student, and *with* was used by one third-year student.

**Table 54 Variations of responses for the verb *occur***

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
17	<i>occur</i> (to)	x	33	20	53
		with	4	12	16
		on	5	6	11
		in	4	2	6
		by	1	0	1
		into	0	1	1

***Occur (to)***

Both groups of students used *occur* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 33$ ) tended to use *occur* without a preposition more frequently than the third-year English majors ( $f = 20$ ). Meanwhile, five prepositions including *with*, *on*, *in*, *by*, and *into* were found to be used by these students differently. As Table 54 displayed, *with* was used by four first-year students and twelve third-year students, *on* was used by five first-year students and six third-year students, *in* was used by four first-year students and two third-year students, *by* was used by one first-year student, and *into* was used by one third-year student.

**Table 55 Variations of responses for the verb *link***

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
18	<i>link</i> (to)	x	30	23	53
		with	6	12	18
		in	1	0	1
		by	1	0	1
		between	0	1	1



*Link (to)*

Both groups of students used *link* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 30$ ) tended to use *link* without a preposition more frequently than the third-year English majors ( $f = 23$ ). Meanwhile, four prepositions including *with*, *in*, *by*, and *between* were found to be used by these students differently. As Table 55 displayed, *with* was used by six first-year students and twelve third-year students, *in* and *by* were used by one first-year student, and *between* was used by one third-year student.

**Table 56 Variations of responses for the verb *conform***

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
19	<i>conform (to)</i>	x	24	26	50
		in	1	2	3
		with	1	1	2
		of	0	1	1
		about	0	1	1
		from	0	1	1

*Conform (to)*

Both groups of students used *conform* without a preposition way more frequently than with a non-target preposition. The third-year English majors ( $f = 26$ ) tended to use *conform* without a preposition more frequently than the first-year English majors ( $f = 24$ ). Meanwhile, five prepositions including *in*, *with*, *of*, *about*, and *from* were found to be used by these students differently. As Table 56 displayed, *in* was used by one first-year student and two third-year students, *with* was used by one first-year student and one third-year student, and *of*, *about*, and *from* were used by one third-year student.

Table 57 Variations of responses for the verb *recover*

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
20	recover (from)	x	37	29	66
		to	2	3	5
		at	1	0	1
		out	0	1	1
		on	0	1	1

*Recover (from)*

Both groups of students used *recover* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 37$ ) tended to use *recover* without a preposition more frequently than the third-year English majors ( $f = 29$ ). Meanwhile, four prepositions including *to*, *at*, *out*, and *on* were found to be used by these students differently. As Table 57 displayed, *to* was used by two first-year students and three third-year students, *at* was used by one first-year student, and *out* and *on* were used by one third-year student.

Table 58 Variations of responses for the verb *sum*

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
21	sum (up)	x	27	20	47
		to	3	2	5
		in	2	1	3
		with	2	0	2
		about	0	2	2
		of	0	1	1
		from	0	1	1

***Sum (up)***

Both groups of students used *sum* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 27$ ) tended to use *sum* without a preposition more frequently than the third-year English majors ( $f = 20$ ). Meanwhile, six prepositions including *to*, *in*, *with*, *about*, *of*, and *from* were found to be used by these students differently. As Table 58 displayed, *to* was used by three first-year students and two third-year students, *in* was used by two first-year students and one third-year student, *with* was used by two first-year students, *about* was used by two third-year students, and *of* and *from* were used by one third-year student.

**Table 59 Variations of responses for the verb *exclude***

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
22	exclude (from)	x	27	23	50
		to	4	3	7
		on	1	3	4
		of	1	1	2
		for	0	2	2
		with	0	1	1
		off	0	1	1

***Exclude (from)***

Both groups of students used *exclude* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 27$ ) tended to use *exclude* without a preposition more frequently than the third-year English majors ( $f = 23$ ). Meanwhile, six prepositions including *to*, *on*, *of*, *for*, *with*, and *off* were found to be used or not used by these students differently. As Table 59 displayed, *to* was used by four first-year students and three third-year students, *on* was used by one first-year student and three third-year students, *of* was used by one first-year student and one third year student, *for* was used by two third-year students, and *with* and *off* were used by one third-year student.



**Table 60 Variations of responses for the verb *compensate***

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
23	<i>compensate</i> (for)	x	28	28	56
		in	2	2	4
		on	1	1	2
		of	0	1	1

***Compensate (for)***

Both groups of students used *compensate* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 28$ ) used *compensate* without a preposition as frequently as the third-year English majors ( $f = 28$ ). Meanwhile, three prepositions including *in*, *on*, and *of* were found to be used by these students differently. As Table 60 displayed, *in* was used by two first-year students and two third-year students, *on* was used by one first-year student and one third-year student, and *of* was used by one third-year student.

**Table 61 Variations of responses for the verb *restore***

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
24	<i>restore</i> (to)	x	32	30	62
		in	4	2	6
		from	1	3	4
		for	0	4	4
		with	1	1	2
		at	1	0	1
		by	0	1	1
		of	0	1	1

*Restore (to)*

Both groups of students used *restore* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 32$ ) tended to use *restore* without a preposition more frequently than the third-year English majors ( $f = 30$ ). Meanwhile, seven prepositions including *in*, *from*, *for*, *with*, *at*, *by*, and *of* were found to be used by these students differently. As Table 61 displayed, *in* was used by four first-year students and two third-year students, *from* was used by one first-year student and three third-year students, *for* was used by four third-year students, *with* was used by one first-year student and one third-year student, *at* was used by one first-year student, and *by* and *of* were used by one third-year student.

**Table 62 Variations of responses for the verb *reside***

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
25	reside (in)	x	20	25	45
		to	6	2	8
		of	1	1	2
		for	1	1	2
		at	1	0	1
		on	0	1	1

*Reside (in)*

Both groups of students used *reside* without a preposition way more frequently than with a non-target preposition. The third-year English majors ( $f = 25$ ) tended to use *reside* without a preposition more frequently than the first-year English majors ( $f = 20$ ). Meanwhile, five prepositions including *to*, *of*, *for*, *at*, and *on* were found to be used by these students differently. As Table 62 displayed, *to* was used by six first-year students and two third-year students, *of* and *for* were used by one first-year student and one third-year student, *at* was used by one first year student, and *on* was used by one third-year student.

Table 63 Variations of responses for the verb *quote*

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
26	quote (as)	x	28	28	56
		to	2	3	5
		by	2	2	4
		from	2	1	3
		on	1	2	3
		in	0	2	2
		with	0	1	1
		about	0	1	1
		of	0	1	1

*Quote (as)*

Both groups of students used *quote* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 28$ ) used *quote* without a preposition as frequently as the third-year English majors ( $f = 28$ ). Meanwhile, eight prepositions including *to*, *by*, *from*, *on*, *in*, *with*, *about*, and *of* were found to be used by these students differently. As Table 63 displayed, *to* was used by two first-year students and three third-year students, *by* was used by two first-year students and two third-year students, *from* was used by two first-year students and one third-year student, *on* was used by one first-year student and two third-year students, *in* was used by two third-year students, and *with*, *about*, and *of* were used by one third-year student.



Table 64 Variations of responses for the verb *intervene*

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
27	intervene (in)	x	24	21	45
		to	3	4	7
		of	0	2	2
		at	1	0	1
		into	0	1	1
		with	0	1	1

***Intervene (in)***

Both groups of students used *intervene* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 24$ ) tended to use *intervene* without a preposition more frequently than the third-year English majors ( $f = 21$ ). Meanwhile, five prepositions including *to*, *of*, *at*, *into*, and *with* were found to be use by these students differently. As Table 64 displayed, *to* was used by three first-year students and four third-year students, *of* was used by two third-year students, *at* was used by one first-year student, and *into* and *with* were used by one third-year student.

Table 65 Variations of responses for the verb *shift*

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
28	shift (to)	x	26	37	63
		from	1	1	2
		on	2	0	2
		in	1	0	1
		into	0	1	1
		out	0	1	1

***Shift (to)***

Both groups of students used *shift* without a preposition way more frequently than with a non-target preposition. The third-year English majors ( $f = 37$ ) tended to use *shift* without a preposition more frequently than the first-year English majors ( $f = 26$ ). Meanwhile, five prepositions including *from*, *on*, *in*, *into*, and *out* were found to be used by these students differently. As Table 65 displayed, *from* was used by one first-year student and one third-year student, *on* was used by two first-year students, *in* was used by one first year student, and *into* and *out* were used by one third-year student.

**Table 66 Variations of responses for the verb *file***

Item No.	Target verbs	Variations	1 <sup>st</sup> yr	3 <sup>rd</sup> yr	Total
			<i>f</i> of use	<i>f</i> of use	
29	file (for)	x	26	23	49
		to	2	3	5
		with	1	3	4
		on	2	1	3
		from	0	2	2
		in	1	0	1
		out	0	1	1
		of	0	1	1

***File (for)***

Both groups of students used *file* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 26$ ) tended to use *file* without a preposition more frequently than the third-year English majors ( $f = 23$ ). Meanwhile, seven prepositions including *to*, *with*, *on*, *from*, *in*, *out*, and *of* were found to be used by these students differently. As Table 66 displayed, *to* was used by two first-year students and three third-year students, *with* was used by one first-year student and three third-year students, *on* was used by two first-year students and

one third-year student, *from* was used by two third-year students, *in* was used by one first-year student, and *out* and *of* were used by one third-year student.

Table 67 Variations of responses for the verb *release*

Item No.	Target verbs	Variations	1 <sup>st</sup> yr <i>f</i> of use	3 <sup>rd</sup> yr <i>f</i> of use	Total
30	release (from)	x	31	23	54
		to	1	2	3
		on	1	0	1
		in	1	0	1
		of	0	1	1

#### *Release (from)*

Both groups of students used *release* without a preposition way more frequently than with a non-target preposition. The first-year English majors ( $f = 31$ ) tended to use *release* without a preposition more frequently than the third-year English majors ( $f = 23$ ). Meanwhile, four prepositions including *to*, *on*, *in*, and *of* were found to be used by these students differently. As Table 67 displayed, *to* was used by one first-year student and two third-year students, *on* and *in* were used by one first-year student, and *of* was used by one third-year student.

For research questions 3.2 and 3.3, the sources of these variations were analyzed. As an error needs to consistently occur (Norrish, 1983 as cited in Khansir, 2012), a variation which appeared once was not further analyzed. The items to be analyzed further needed to appear greater than two times across different students. In other words, a variation of use must be produced by at least two students from two groups of students combined to be analyzed for the sources of errors.

### **3.2 Are there any variations of verb + preposition collocations influenced by the interlingual transfer?**

This research question attempted to explore one important source of L2 errors known as an *interlingual transfer* which resulted from a negative transfer, usually caused by L2 learners' word-for-word translations from their L1 to L2. To investigate



whether there is an interlingual transfer in students' variations of use, the analysis for this research question relied on students' translations of the verbs and prepositions in the test of multi-word verbs. Table 68 displays the analysis of incorrect use of prepositions caused by interlingual transfers, based on students' translations of the multi-word verbs of their choices (verb + non-target preposition) (column 5) compared by the Thai translations of those prepositions (column 4) based on *Google Translate*.

**Table 68 Use of non-target prepositions caused by interlingual transfer**

Verbs (+ target P*'s)	Non- target P's	<i>f</i> (1 <sup>st</sup> yr:3 <sup>rd</sup> yr)	GG** translations of other P's	Students' translations of Verbs (+ other P's)
link (to)	with	18 (6:12)***	กับ/ด้วย/โดย/ตาม/ ต่อ/ในส่วน/พร้อม ด้วย/เข้ากับ	เชื่อมโยงกับ/ติดกันกับ/เชื่อมต่อ กับ
occur (to)	with	16 (4:12)	กับ/ด้วย/โดย/ตาม/ ต่อ/ในส่วน/พร้อม ด้วย/เข้ากับ	เกิดขึ้นกับ
benefit (from)	to	13 (3:10)	ไปยัง/ต่อ/ยัง/สู่/แก่/ จนถึง/ไปสู่/แต่	ประโยชน์ต่อ/สำคัญต่อ
attribute (to)	from	7 (0:7)	จาก/ตั้งแต่/แต่/ นับตั้งแต่/ห่างจาก/ โดยอาศัย	เกิดจาก

Table 68 (cont.)

Verbs (+ target P*'s)	Non- target P's	<i>f</i> (1 <sup>st</sup> yr:3 <sup>rd</sup> yr)	GG** translations of other P's	Students' translations of Verbs (+ other P's)
coincide (with)	to	7 (3:4)	ไปยัง/ต่อ/ยัง/สู่/แก่/ จนถึง/ไปสู่/แต่	เข้าไปใน
participate (in)	with	6 (1:5)	กับ/ด้วย/โดย/ตาม/ ต่อ/ใน/ส่วน/พร้อม ด้วย/เข้ากับ	ให้ความสนใจกับ/มีส่วนร่วมกับ
expose (to)	with	5 (1:4)	กับ/ด้วย/โดย/ตาม/ ต่อ/ใน/ส่วน/พร้อม ด้วย/เข้ากับ	สัมผัสกับ/เจอกับ
remove (from)	to	5 (3:2)	ไปยัง/ต่อ/ยัง/สู่/แก่/ จนถึง/ไปสู่/แต่	นำออกไป/เอาออกไป
concentrate (on)	with	4 (0:4)	กับ/ด้วย/โดย/ตาม/ ต่อ/ใน/ส่วน/พร้อม ด้วย/เข้ากับ	ให้ความสนใจกับ
coincide (with)	into	3 (1:2)	เข้าไป/เข้าไปข้างใน/ เข้ามาเข้าใน/ กลายเป็น	นำเข้าไป

Table 68 (cont.)

Verbs (+ target P*'s)	Non- target P's	<i>f</i> (1 <sup>st</sup> yr:3 <sup>rd</sup> yr)	GG** translations of other P's	Students' translations of Verbs (+ other P's)
concentrate (on)	in	3 (1:2)	ใน/ภายใน/ข้างใน/อยู่ข้าง ใน/ในระหว่าง/ในสภาพ/ใน ภาวะ/เมื่อ/ใส่	ให้ความสนใจในเรื่อง
remove (from)	out	3 (1:2)	ออก/ข้างนอก/ออกไป/พ้น สมัย/ดับ/หมดสิ้น/ขาด/ตก	เขาออกไป
consist (of)	with	2 (0:2)	กับ/ด้วย/โดย/ตาม/ต่อ/ใน ส่วน/พร้อมด้วย/เข้ากับ	ประกอบไปด้วย/ ประกอบด้วย
quote (as)	in	2 (0:2)	ใน/ภายใน/ข้างใน/อยู่ข้าง ใน/ในระหว่าง/ในสภาพ/ใน ภาวะ/เมื่อ/ใส่	อ้างใน
sum (up)	about	2 (0:2)	เกี่ยวกับ/ใกล้ๆ/เกือบ/รอบ/ ราวๆ	สรุปเกี่ยวกับ

\*P refers to preposition.

\*\*GG refers to Google Translate.

\*\*\* were the frequencies of a variation made by the first-year students per the third-year students.

As displayed in Table 68, fifteen pairs of variations were caused by interlingual transfers or word-for-word translations. As ranked by the frequency of occurrences, these were: *link with* ( $f = 18$ , 6:12), *occur with* ( $f = 16$ , 4:12), *benefit to* ( $f = 13$ , 3:10), *attribute from* ( $f = 7$ , 0:7), *coincide to* ( $f = 7$ , 3:4), *participate with*



( $f = 6, 1:5$ ), *expose with* ( $f = 5, 1:4$ ), *remove to* ( $f = 5, 3:2$ ), *concentrate with* ( $f = 4, 0:4$ ), *coincide into* ( $f = 3, 1:2$ ), *concentrate in* ( $f = 3, 1:2$ ), *remove out* ( $f = 3, 1:2$ ), *consist with* ( $f = 2, 0:2$ ), *quote in* ( $f = 2, 0:2$ ), and *sum about* ( $f = 2, 0:2$ ).

Based on Thai to English transcriptions of the Royal Thai General System of Transcription (RTGS) along with the International Phonetic Alphabet (IPA) phonetic symbols, the transfers from the Thai language to the use of these English multi-word verbs can be depicted as follows.

#### ***Link with***

Students' translations of *link with*, which were เชื่อมโยงกับ (*chueam yong kap*), ติดกันกับ (*tit kan kap*), and เชื่อมต่อกับ (*chueam to kap*), contained one of translations of the preposition *with* in the Thai language – *kap* [kàp].

#### ***Occur with***

A students' translation of *occur with*, which was เกิดขึ้นกับ (*koet khuen kap*), contained one of translations of the preposition *with* in the Thai language – *kap* [kàp].

#### ***Benefit to***

Students' translations of *benefit to*, which were ประโยชน์ต่อ (*pra-yot to*) and สำคัญต่อ (*sam-khan to*), contained one of translations of the preposition *to* in the Thai language – *to* [tò:].

#### ***Attribute from***

A student' translation of *attribute from*, which was เกิดจาก (*koet chak*), contained one of translations of the preposition *from* in the Thai language – *chak* [tɛ̀:k].

#### ***Coincide to***

A student' translation of *coincide to*, which was เข้าไปใน (*khao pai nai*), contained one of translations of the preposition *to* in the Thai language – *pai* [paj].

#### ***Participate with***

Students' translations of *participate with*, which were ให้ความสนใจกับ (*hai khwam son-chai kap*) and มีส่วนร่วมกับ (*mi suan ruam kap*), contained one of translations of the preposition *with* in the Thai language – *kap* [kàp].

**Expose with**

Students' translations of *expose with*, which were สัมผัสกับ (*sam-phat kap*) and เจอกับ (*choe kap*), contained one of translations of the preposition *with* in the Thai language – *kap* [kàp].

**Remove to**

Students' translations of *remove to*, which were นำออกไป (*nam ok pai*) and เอาออกไป (*ao ok pai*), contained one of translations of the preposition *to* in the Thai language – *pai* [paj].

**Concentrate with**

A student's translation of *concentrate with*, which was ให้ความสนใจกับ (*hai khwam son-chai kap*), contained one of translations of the preposition *with* in the Thai language – *kap* [kàp].

**Coincide into**

A student's translation of *coincide into*, which was นำเข้าไป (*nam khao pai*), contained one of translations of the preposition *to* in the Thai language – *pai* [paj].

**Concentrate in**

A student's translation of *concentrate in*, which was ให้ความสนใจในเรื่อง (*hai khwam son-chai nai rueang*), contained one of translations of the preposition *in* in the Thai language – *nai* [naj].

**Remove out**

A student's translation of *remove out*, which were เอาออกไป (*ao ok pai*), contained one of translations of the preposition *out* in the Thai language – *ok* [ʔò:k].

**Consist with**

Students' translations of *consist with*, which were ประกอบไปด้วย (*pra-kop pai duai*) and ประกอบด้วย (*pra-kop duai*), contained one of translations of the preposition *with* in the Thai language – *duai* [dûaj].

**Quote in**

A student's translation of *quote in*, which was อ้างใน (*ang nai*), contained one of translations of the preposition *in* in the Thai language – *nai* [naj].

### *Sum about*

A student' translation of *sum about*, which was สรุปเกี่ยวกับ (*sa-rup kiao-kap*), contained one of translations of the preposition *about* in the Thai language – *kiao-kap* [kì:aw kàp].

In addition, the retrospective interview data congruently supported the test data that the interlingual transfer was a crucial source of errors. The interviewees from both groups expressed their thoughts to explain why they used the non-target prepositions of their choices. Some interviewees often mentioned the meanings of the non-target prepositions they used while explaining their answers. For example, Sonthi, a first-year student, and Pattra, a third year student, stated that they used *adapt*, *occur*, and *link* with the preposition *with* instead of *to* by referring a Thai meaning of it, *kap* [kàp]. Sonthi translated his answers, *adapt with* and *occur with* as ปรับตัวให้เข้ากับ (*prap tua hai khao kap*) and เกิดขึ้นกับ (*koet khuen kap*), while Pattra translated her answer, *link with* as เชื่อมโยงกับ (*chueam yong kap*). Instead of *to*, Pattra used *adapt* with the preposition *from*. She directly translated her answer, *adapt from* as ประยุกต์มาจาก (*pra yuk ma chak*), and *chak* [tɛ̀:k] is a Thai meaning of *from*. Additionally, in place of *from*, Sopa, a third-year student, used *remove* with the preposition *in*. She translated her answer, *remove in* as ขนย้ายไปอยู่ข้างใน (*khon yai pai ayu khang nai*), and *nai* [naj] is a Thai meaning of *in*.

### 3.3 Are there any variations of verb + preposition collocations influenced by the intralingual transfer?

In addition to interlingual transfers, the variations of students' responses were further analyzed for other sources of errors based on the classification of sources of collocational errors which Hong, et al. (2011) adapted from Richards (1974) and Tarone (1981).



**Table 69 Classification of sources of collocational errors**

Types of Strategies	Major categorizations of sources of errors	Sub-categorizations of sources of errors
Cognitive strategies	Interlingual Transfer	a) L1 transliteration/L1 literal translation b) Language switch
	Intralingual Transfer	a) False concept hypothesized b) Overgeneralization c) Ignorance of rule restrictions
Communicative strategies	Paraphrase	a) Approximation - Semantic affinity - Morphological and Phonological affinities

**Source:** Hong, et al.'s, 2011, adapted version from Richards, 1974; Tarone, 1981

The data to be analyzed for this research question were from the test of multi-word verbs in the sentence completion task (providing a preposition for a provided verb and its meaning). The responses the students provided for the verbs including the verbs alone without a preposition and the verbs with a non-target preposition were analyzed along with the translations they provided for their verb items to explore the sources of errors. The results showed that in addition to the interlingual transfer, the errors were also influenced by the intralingual transfer as well as paraphrases as two categories of sources of collocational errors were observed. These were ignorance of rule restrictions and approximations.

### 3.3.1 Ignorance of rule restrictions

According to Hong, et al. (2011, p. 41), ignorance of rule restrictions can be caused by “the inappropriate use of prepositions in which the learners attempt to use the same linguistic elements of a particular structure acquired previously

on other similar structures without considering their collocational and grammatical restrictions.” The evidence of ignorance of rule restrictions in this study consisted of the following cases: using the passive voice structure, using the noun + preposition structures, and using verb followed by an adverbial structure. The followings exemplify the occurrences of each case.

Using the passive voice structure refers to the use of the provided verb followed by the preposition *by* such as *exposed by*, *quoted by*, *removed by*, and *submitted by*. As the study tried to limit errors which were not caused by collocational knowledge, the verbs provided in parentheses were already in the correct grammatical forms. Similarly, the earlier verb items were provided in parentheses in the past participial form; thus, seeing this verb form, students without knowing the collocational restriction filled in the preposition *by* which is usually used as a part of the passive voice.

Using the noun + preposition structures was found in the verbs which can function as a noun including *benefit*. Instead of using *benefit from* which matched to the context given, some students used *benefit for* and *benefit of*, which were used in the noun + preposition structures.

Using a verb followed by an adverbial structure refers to the use of the provided verbs with a preposition which is usually used to form an adverbial phrases. Examples include: *adapt for* or *adapted for* and *occur in* and *occur on*. While *for* can follow *adapted* to form an adverb of purposes, and *in* and *on* can follow *occur* to form an adverb of time or place, they were not restricted to the context given and cannot be called multi-word verbs as the preposition and the following noun must function as “a prepositional object” (Biber, et al., 2002, p. 129).

### 3.3.2 Approximation

Based on Hong, et al.’s (2011, p. 41) framework, approximations or approximate translations are from L2 learners’ use of communicative strategies when they attempt to paraphrase or substitute words within the target language by using of language items which “share similar phonological and morphological features with the correct items or have semantic affinity with the target items.” Three types of approximations were found in this study: approximate translations of verbs without collocational interferences, and approximate translations of verbs with collocational interferences, and approximate translations of prepositions. Approximate translations of



verbs without collocational interferences were also depicted under the title *lack of lexical knowledge*. Students approximated the translations of the target verbs using the other verbs with morphological and phonological affinity, but an interference which caused a collocational error did not occur. Meanwhile, approximate translations of verbs with collocational interferences were different from the former type in that it caused an incorrect selection of a preposition. For instance, instead of using *removed* with the preposition *from*, they used the verb with the prepositions *in* and *on*, which were frequent preposition collocations of the word *move*.

Approximate translations of prepositions were found in the use of *in*, *to*, and *into*, which have some semantic affinity as they can refer to a movement in the same direction. For example, a number of students used *to* instead of *into* with the verb *transform*, and some students used *in* and *into* instead of *to* with the verb *contribute*.

In addition to the interlingual and the intralingual transfer, there were other crucial sources of errors in the selection of prepositions for the provided verbs. Even though these two sources were not mentioned in the framework, they were important reasons for the use of various strategies in the framework.

### 3.3.3 Lack of lexical knowledge

The lack of lexical knowledge was the most important source of errors in the use of the target multi-word verbs. The evidence was shown through two types of students' responses. These were: 1) the no-responded test items and 2) the responses of which students' translations of the provided verbs were incorrect. The study assumed that if students barely knew the meanings of the provided verbs, they would not know the correct prepositions used with those verbs. And if the meanings were guessed, the prepositions they filled in could be randomly selected. The results indicated three types of guessed translations which could result in incorrect responses in the preposition-filling task. These were: 1) random and unrelated translations, 2) approximate translations, and 3) no translations.

Random translations were usually found along with students' responses in the preposition-filling task that they provided only the verbs alone without preposition. The meaning was unrelated and random. For example, some students provided the meaning for their response *consist* as โน้มน้ำว [nó:m ná:w] or กล่อม [kló:m], which means *to persuade* in English. For the target multi-word verb *contribute to*, they



responded *contribute* without a preposition and translated it as กระตุ้น [kràʔ tûn] and ทุ่มเท [tʰûm tʰe:] which mean *to stimulate* and *to dedicate*, respectively. This evidence showed that they did not have a clue what the verbs were, so they just simply repeated what they were given which were verbs in parentheses for their responses and provided a random translation for the verbs.

Similarly, approximate translations were found in students' responses in the preposition-filling task that they provided only the verbs alone without preposition. Their translations for the verbs provided were approximated by translating the target verbs using the definitions of other verbs with a morphological affinity. For example, their translations to *contribute* were approximated as แบ่ง [bèŋ] and แจกจ่าย [tɕè:k tɕà:j], which mean *to distribute* in English. As *contribute* and *distribute* consist of the same morpheme *tribute*, an approximate translation occurred. This case is different from approximate translations in communication strategies as students' selections of prepositions were not interfered by approximations. That is, *contribute* and *distribute* have the same preposition collocation *to* in order to be used with an object; however, their responses were the same – the verb alone without a preposition. If there was an interference in the preposition used, their response to the preposition-filling task might be correct as they might borrow the preposition *to* from the word they approximated. Approximate translations of words with morphological and phonological affinity were also found in other given verbs as follows: *consist* = *resist*, *concentrate* = *control*, *dispose* = *disappear*, *conform* = *confirm*, *contribute* = *construct* or *conclude*, *expose* = *explode*, *recover* = *discover* or *cover*, *restore* = *store*, and *submit* = *admit*.

### 3.3.4 Lack of collocational knowledge

The important evidence of the lack of collocational knowledge was that even though students could provide the correct meanings for the provided verbs, their responses usually consisted of the verbs alone, without any prepositions. This could be inferred that they did not realize that the provided verbs were restricted in use as they need a preposition. This kind of responses was shown in students in both groups. Especially, the statistics showed that more than 20 items of a test of 30 items responded by 44.23% of first-year English majors and 30.36% of third-year English majors consisted of the provided verbs without a preposition.

In conclusion, these Thai English majors' incorrect use of the target multi-word verbs resulted from different sources. While the lack of lexical knowledge or the knowledge of the provided verbs caused difficulties in the use of these verbs, students were also found to lack collocational knowledge even though they knew the meanings of the verbs. The lack of collocational knowledge and collocational restrictions caused them to employ cognitive and communicative strategies to produce preposition collocations. The students' use of cognitive strategies including both interlingual and intralingual transfers was found. While they employed literal translations from the Thai language, their incorrect responses were also caused by ignorance of rule restrictions. Finally, their errors were also produced when approximate translations which are communicative strategies were employed.

#### **Research Findings for Research Question 4**

#### **4. What are the difficulties to use multi-word verbs perceived by the first-year students and the third-year students, majoring in English?**

One-on-one semi-structured interviews with six volunteers (three first-year English majors and three third-year English majors) were conducted to reveal the difficulties to use multi-word verbs as reported by the participants.

The interviews were conducted immediately after the test using the Thai language which is the first language of the interviewer and interviewees. The interviews with four students recorded by an audio-recorder; however, as two interviewees did not allow audio-recording, their interviews were noted instead. Table 70 summarizes the recording lengths with individual interviewees in their pseudonyms.

**Table 70 List of students' pseudonyms, levels, and recording lengths**

Students' Pseudonyms	University levels	GPA Levels	Recording Lengths(Sec)
Malee	1 <sup>st</sup> year	Low	07.18
Sonthi	1 <sup>st</sup> year	Moderate	10.29
Chana	1 <sup>st</sup> year	High	Hand-recorded



**Table 70 (cont.)**

Students' Pseudonyms	University levels	GPA Levels	Recording Lengths(Sec)
Dara	3 <sup>rd</sup> year	Low	Hand-recorded
Sopa	3 <sup>rd</sup> year	Moderate	09.55
Pattra	3 <sup>rd</sup> year	High	13.37

To elicit learners' difficulties, the following topics and sub-topics were plotted based on literature review for the semi-structured interview.

<b>Interview Topics and Sub-topics</b>	
1. Learners' conception of multi-word verbs	
1.1 Learners' conception of different types of multi-word verbs: phrasal verbs and prepositional verbs	
2. Learners' familiarity in multi-word verbs appearing in the test	
2.1 Examples of multi-word verbs known by the learners	
3. Learners' exposures to multi-word verbs	
3.1 Means of exposures	
3.2 The extent of exposures	
4. Learners' difficulties in using multi-word verbs	
4.1 Use of multi-word verbs in everyday life	
4.2 Use of multi-word verbs in formal instruction	
4.3 General difficulties in using multi-word verbs	
4.4 Conceptions of the difficulties of using multi-word verbs compared to single-word verbs	

**Figure 12 The semi-structured interview: Topics and sub-topics**



The interview was led by questions which attempted to elicit students' understandings and conception about multi-word verbs, followed by familiarity and exposures to multi-word verbs in order to check whether the students knew about the subject matter we were going to talk about. After that, they were asked to narrate their use of multi-word verbs in everyday life and in formal instruction, followed by what they saw as difficulties in using multi-word verbs and what they think about using multi-word verbs compared to single-word verbs.

The interview transcripts and notes were coded and recoded by the research author to foster the intracoder reliability of the results. Data analysis indicated five difficulties in using multi-word verbs as follows.

### **1. Lack of knowledge in multi-word verbs**

The interview results revealed that all students lacked knowledge and understandings about multi-word verbs. When asked about different terms related to multi-word verbs including *multi-word verbs*, *phrasal verbs*, and *prepositional verbs*, they seemed to lack declarative knowledge of these terms. They were not familiar with the term *multi-word verbs*, either in Thai or English. Although some interviewees stated that they were familiar with these terms, they were unable to tell the elements of these verbs. Instead, some interviewees guessed from direct translations of the terms which were incorrect. For example, Sopa and Pattra reported that they had heard the terms *multi-word verbs* and *phrasal verbs* before. However, when asked for further elaboration, they responded with an uncertainty. Sopa said, "Multi-word verbs consist of many verbs?" and "phrasal verbs are verbs which are phrases." Pattra depicted, "They are verbs which need an object." Meanwhile, most interviewees reported that they were familiar with the term *phrasal verbs* but unable to specify its characteristics. When talking about *prepositional verbs*, most students were not familiar with the term.

Despite lacking formal knowledge on specific terms related to multi-word verbs, there were some remarks which implied an understanding or experience with multi-word verbs. For example, although Sonthi honestly reported unfamiliarity with the earlier terms, he knew that the verbs he found in the test were "verbs with preposition." Moreover, when interviewees were given easier examples of multi-word verbs such as *stand up*, *sit down*, *listen to*, and etc., they accepted that they had learned and experienced them before but did not know what they were formally called.

Especially, some students talked about one of specifications of phrasal verbs when the interview went on. That was the deviations of meanings in phrasal verbs.

## **2. Failures to recognize multi-word verb items due to characteristics of multi-word verbs**

Most interviewees reported that they had difficulties in recognizing multi-word verb items due to two important reasons. These were variations of prepositions and deviations of meanings.

Three interviewees including Chana, Dara, and Sopa reported that their difficulties to recognize different items of multi-word verbs were largely due to the variations of prepositions per one verb. Due to this, Chana reported that she was not sure “which preposition is to be used,” and Dara was “confused.” Meanwhile, Sopa reported that verbs with a preposition were more difficult to remember than single-item verbs because one verb could be used with different prepositions.

Three interviewees including Malee, Sonthi, and Pattra reported that verbs which are used with a preposition were difficult due to the deviations of meanings which cannot be predicted by word-for-word translations from the Thai language to English. As Sonthi stated, “preposition cannot be guessed” as “the changing of prepositions causes the changing of meanings.” Pattra reported that translating from the Thai language to English can cause the missing of a preposition. As she exemplified,

*...I will think in Thai then translate into English. To suppose, for “chan chop kin” (means “I like eating”), I just use “I like” instantly instead of thinking about adding “to” or “in.”*

## **3. Failures to recognize multi-word verb items due to personal behaviors in vocabulary learning**

Personal behaviors in vocabulary learning also resulted in interviewees’ failures to recognize multi-word verb items. Some students lacked attention to informal exposures and lacked reviews after exposures to multi-word verbs. As Sonthi reported, he was exposed to this kind of verbs through soundtrack movies, but he did not pay full attention toward them by searching for their meanings in a



dictionary. Meanwhile, Pattra confessed that she would review or recite these verbs only before the tests.

#### **4. Lack of exposure to multi-word verb items**

Some interviewees reported that they were rarely exposed to multi-word verbs through formal classroom instruction. For example, Malee stated that her high school teachers did not expose her to verbs which are used with a preposition. Sonthi revealed that English classes in his high school focused more on tenses than on this kind of verbs. Meanwhile, some interviewees were also exposed to multi-word verbs through entertainment. For instance, Sonthi and Chana said that they found these verbs in movies, and Chana observed that they were easy words. Pattra and Dara thought that they usually saw them in the Internet. Pattra added that some internet banners, songs, and novels contained multi-word verbs. However, Malee noted that she found these verbs in class but not from other sources.

#### **5. Lack of use in real-life situations**

Even though some interviewee reported that they were exposed to multi-word verbs through formal classroom instruction, he or she lacked opportunities to use them in real life situations. Pattra reported that classroom instruction might expose her to many multi-word verbs, but she forgot them because she rarely spoke or used English.

#### **6. Lack of collocational awareness**

Lack of collocational awareness was indirectly reported by some interviewees when they talked about their vocabulary learning. Malee, for instance, expressed that she might “know the meanings and know very little about use, but not know which (preposition) is used.” When she was asked to add a preposition for some verbs, she added an incorrect preposition even though Thai translations of the verbs were given. Examples included *listen on* and *sit on* instead of *listen to* and *sit down*. Meanwhile, Pattra stated that vocabulary knowledge involved the knowledge of “part of speech, meaning and what else...using it with an appropriate level?” but did not mention about collocational knowledge.

In conclusion, the interview data revealed that there were six major difficulties to use English multi-word verbs which the interviewees directly and indirectly reported. Firstly, the interviewees lacked knowledge in multi-word verbs as



they could not elaborate what the characteristics and the categories of this kind of verbs. Secondly, interviewees failed to recognize multi-word verb items due to their special characteristics including variations of prepositions and deviations of meanings. Thirdly, they failed to recognize multi-word verb items due to their own learning behaviors including lacking attention to these verbs if exposed by chance and lacking regular reviews after exposures. Fourthly, they were rarely exposed to different multi-word verbs items, and fifthly, although they were exposed to them, there were not many chances to use them in real life situations. Finally, the existence of collocations was overlooked in their conception about vocabulary learning, whereas meanings and parts of speech were more focused.

As added above, the interview results are advantageous to English instruction in foreign language settings as they reported learners' several hidden problems about vocabulary learning and learning of multi-word verbs. However, it should be noted that the interview lengths may fluctuate across different students due to the lack of knowledge in multi-word verbs and their different levels of English proficiency. Shyness can also result in the length of a response for a question. As Sopa admitted, she was a shy person, so she talked less. Additionally, the interview reports which were hand-recorded were much shorter than the audio-recorded due to the record was skipped when the interviewer spent time building rapport through off-topic talking.

## CHAPTER V

### CONCLUSIONS

#### Summary

The current study aimed at exploring the use of multi-word verbs in Thai university students of English in various dimensions. Four research questions helped guide the study as follows.

1. To what extent are English majors in two undergraduate levels (first-year and third-year students) able to use English multi-word verbs?

1.1 To what extent do first-year students majoring in English score from the test of multi-word verbs?

1.2 To what extent do third-year students majoring in English score from the test of multi-word verbs?

1.3 What are the differences between the scores of the first-year students and those of the third-year students majoring in English?

2. How do these learners use English multi-word verbs in their written sentences?

2.1 To what extent do they use the given verbs with the target prepositions in their written sentences?

2.2 If the English majors use the given verbs with the target prepositions, to what extent do they score from their written sentences?

3. What are the sources of errors in their use of English multi-word verbs?

3.1 What are students' variations of prepositions used with the target verbs?

3.2 Are there any variations of verb + preposition collocations influenced by the interlingual transfer?

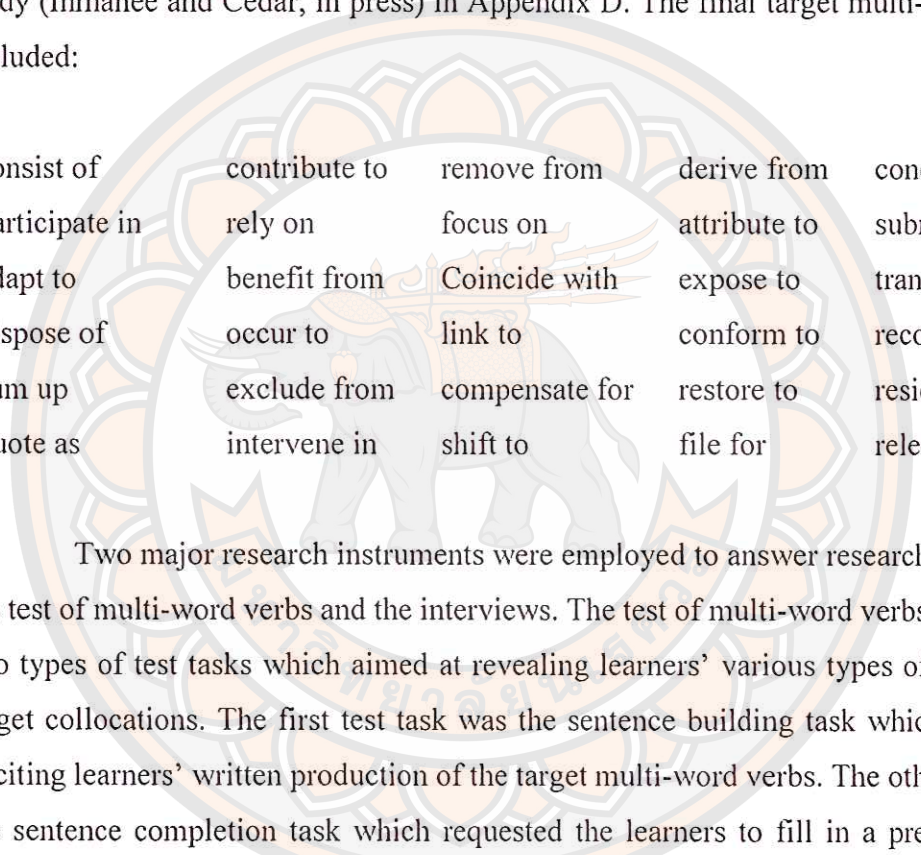
3.3 Are there any variations of verb + preposition collocations influenced by the intralingual transfer?

4. What are the difficulties to use multi-word verbs perceived by the first-year students and the third-year students, majoring in English?



To answer the research questions, 108 English majors in two Bachelor's degree levels who were studying at Naresuan University during the second semester of the year 2014 (from January 2015 to May 2015) were asked to participate in the present study. They were 52 first-year students and 56 were third-year students.

The target multi-word verbs were obtained from Coxhead's (2000) Academic Word List. Three selection procedures were dictionary consultation, concordancing and corpus analysis, and T-score calculation as elaborated and discussed in the preliminary study (Inmanee and Cedar, in press) in Appendix D. The final target multi-word verbs included:



consist of	contribute to	remove from	derive from	concentrate on
participate in	rely on	focus on	attribute to	submit to
adapt to	benefit from	Coincide with	expose to	transform into
dispose of	occur to	link to	conform to	recover from
sum up	exclude from	compensate for	restore to	reside in
quote as	intervene in	shift to	file for	release from

Two major research instruments were employed to answer research questions: the test of multi-word verbs and the interviews. The test of multi-word verbs comprised two types of test tasks which aimed at revealing learners' various types of use of the target collocations. The first test task was the sentence building task which aimed to eliciting learners' written production of the target multi-word verbs. The other task was the sentence completion task which requested the learners to fill in a preposition or particle appropriate to the given context. Within this test task, the learners were also asked to translate the verb and the preposition they filled in in order to measure their semantic knowledge. After the test, three participants from each group were asked to volunteer in one-on-one interviews to reveal the sources of errors and their perceived difficulties in using multi-word verbs. Before the semi-structured interview, a retrospective interview was used to investigate the reasons behind their test responses to help reveal the sources of errors in addition to the error analysis which was conducted with the data from the sentence completion test.



The results are concluded and discussed in terms of findings regarding the four research questions of this study.

## Discussion

### According to research question 1:

1. To what extent are English majors in two undergraduate levels (first-year and third-year students) able to use English multi-word verbs?

1.1 To what extent do first-year students majoring in English score from the test of multi-word verbs?

1.2 To what extent do third-year students majoring in English score from the test of multi-word verbs?

1.3 What are the differences between the scores of the first-year students and those of the third-year students, majoring in English?

The results for the research question 1 were obtained from the test of multi-word verbs. Three types of scores were set to measure the students' ability to provide the correct preposition (Type P), to provide the correct or acceptable meaning (Type M), and to provide both the correct preposition and the correct or acceptable meaning (Type PM).

The results indicated that both groups of the students received relatively low scores in all three types of scores. That is, 52 first-year English majors scored less than one-thirds of the total score in average, while 56 third-year English majors scored more than 10 points out of 30 from only one category (Type M). Both groups of the students followed the same trend as they were more able to identify the meanings of the multi-word verbs than to provide the correct preposition for the given verbs. Whereas, there were the least chances which they were able to receive scores in both types from a multi-word verb, i.e. providing both the correct preposition and the correct/acceptable meaning.

Overall, the statistical analysis from an independent-samples t-test revealed that there was a significant difference in three types of scores obtained by the first-year English majors and the third-year English majors. That is, the third-year English majors received significantly higher scores from the test of multi-word verbs in type P, M, and PM when compared to the first-year English majors' scores.

For type P, the third-year English majors received significantly higher scores than the first-year English majors for these 16 multi-word verbs: *contribute to, focus on, release from, sum up, consist of, remove from, concentrate on, submit to, occur to, benefit from, reside in, coincide with, derive from, dispose of, shift to, and link to.*

For type M, the third-year English majors received significantly higher scores than the first-year English majors for these 16 multi-word verbs: *consist of, participate in, focus on, submit to, transform into, dispose of, sum up, shift to, release from, concentrate on, restore to, derive from, rely on, coincide with, conform to, and compensate for.*

For type PM, the third-year English majors received significantly higher scores than first-year English majors for these 16 multi-word verbs: *consist of, concentrate on, participate in, focus on, sum up, release from, remove from, contribute to, link to, submit to, coincide with, occur to, rely on, benefit from, dispose of, and recover from.*

Similarly, third-year English majors received significantly higher scores for all types than first-year English majors in these eight multi-word verbs: *focus on, release from, sum up, consist of, concentrate on, submit to, coincide with, and dispose of.*

The results can be concluded that all participating English majors even in a higher year of study had limited knowledge of the target English multi-word verbs. However, the third-year English majors significantly had higher knowledge and ability to use the multi-word verbs than the first-year English majors had.

The present study's results bolstered the findings of Gisaki (1996)'s and Ebrahimi-Bazzazz, et al.'s (2014) studies which compared the differences of verb-noun collocational proficiency by years in undergraduate study. That is, maturation including ages and proficiency levels significantly affected collocational development (Gisaki, 1996). Especially, learners' with two-year interval generally had significant difference in their scores for collocational proficiency (Ebrahimi-Bazzazz, et al., 2014). In this study, the third-year English majors significantly had better scores for providing prepositions for the given verbs, and their semantic knowledge of the verb items were significantly better. Despite the significant differences in three types of scores which measured learners' ability to use multi-word verbs, the scores of the third-year English majors were still far from satisfactory since their scores for all three types did not even



reach a half of the total scores. This finding was consistent to Nesselhauf's (2003) and Khittikote's (2011) in that L2 advanced learners were not proficient collocational users. As Nesselhauf (2003) reported, advanced German speaking learners of English produced errors in verb + noun collocations at all levels of collocational restrictions. Khittikote (2011) revealed that Thai learners of English at advanced level still had problems in recognizing collocations despite regular exposure to English.

**According to research question 2:**

2. How do these learners use English multi-word verbs in their written sentences?

2.1 To what extent do they use the given verbs with the target prepositions in their written sentences?

2.2 If the English majors use the given verbs with the target prepositions, to what extent do they score from their written sentences?

This research question aimed at determining the Thai students' use of the target English multi-word verbs in written sentences. The data analysis of students' responses from the sentence building task indicated that, of the expected number of sentences written by each group of students, the participating English majors tended to provide no responses, followed by using non-target preposition or none, and using the target preposition after the provided verbs. The first-year English majors provided no responses more than half of the expected number of sentences (61.67%), while the third-year students had no responses less than half of the expected number of sentences (44.94%). The third-year students used non-target prepositions or no preposition (38.45%) more than the first-year students did (29.42%). Also, the third-year students were more likely to use the given verbs with the target prepositions as they wrote almost twice as many sentences with the target prepositions as the first-year students did (16.61%: 8.91%). This can be inferred that the third-year students had better knowledge of the structures of the verb + preposition collocations or multi-word verbs than the first-year English majors.

In addition, the percentages can be inferred that students with higher university levels used the verbs with the target prepositions more frequently. Of thirty multi-word verbs, only two cases of which the first-year English majors' frequencies of using the target multi-word verbs in written sentences outnumbered those of third-year



English majors were *conform to* ( $f = 2 : 1$ ) and *exclude from* ( $f = 2 : 0$ ). The other three cases of which both groups' frequencies of using the target multi-word verbs in written sentences equaled 0 were *quote as*, *intervene in*, and *file for*. Meanwhile, the students with the lower university levels avoided writing sentences from the given verbs more frequently. The results implied that in addition to an increased knowledge of academic vocabulary, learners' awareness of preposition collocations also increased by years in higher education as the third-year English majors began to know that the given verbs needed to be followed by a preposition despite using incorrect prepositions.

The Chi-square test was applied to test the differences in three types of responses of two groups of students to individual verb items. The results indicated that there were statistically significant differences in the use of thirteen verbs in the sentence building test. These were: *consist of*, *contribute to*, *derive from*, *concentrate on*, *participate in*, *focus on*, *adapt to*, *dispose of*, *recover from*, *sum up*, *restore to*, *reside in*, and *shift to*. As supported by the numerical data, the third-year English majors were more likely to use these verbs with the target prepositions in written sentences than the first-year English majors at a significant different level. This result conformed to the earlier inference that the third-year students had better use of the target multi-word verbs than the first-year students.

However, for the other seventeen verbs, their responses to the sentence building test were somewhat similar based on the statistical evidence although the raw frequencies showed that the third-year English majors had slightly more frequent use of the given verbs with the target prepositions than the first-year English majors. In other words, they had frequent use of the given verbs with the target prepositions in a similar proportion. As the data showed, the students in both groups similarly had a frequent use of *remove*, *rely*, and *link* with the target prepositions *from*, *on*, and *to*, respectively. However, they similarly had infrequent use of *attribute*, *submit*, *benefit*, *coincide*, *expose*, *transform*, *occur*, *conform*, *exclude*, *compensate*, *quote*, *intervene*, *file*, and *release* with target prepositions.

The results that both groups of participants rarely used the given verbs with the target prepositions indicated two important limitations of the learners including the lacks of vocabulary knowledge and collocational knowledge. It can be inferred that, as the participants did not know or were not familiar with the provided verbs, they were

more likely to provide no responses or just use the given verbs without providing any prepositions. These types of responses can be called *avoidance* which was also mentioned in many previous studies (Farghl and Obiedat, 1995; Huang, 2001; Koya, 2003; Naba'h and Al-Shara'h, 2011; Boonyasquan, 2006). According to Koya (2003), avoidance was found in lower-proficient learners when they avoided using the provided verbs by giving up responding to the test whenever they did not know some of the target collocations. Avoidance also occurred in Thai learners in Boonyasquan's (2006) study. Due to insufficient knowledge of collocations, her Thai participants tended to avoid translating some collocations.

To determine the extent to which the students scored from using the target multi-word verbs, the sentences of which the target prepositions were used with the given verbs were scored by two native speakers of English. The average score for each sentence was calculated, and the sum of average scores for all sentences written for each verb item indicated an overall ability to use that multi-word verb in written sentences of each group of students. However, it should be noted that the calculation did not include the items with no responses and the responses with non-target prepositions.

Overall, the first-year and the third-year students' responses with the target multi-word verbs consisted of 139 sentences and 279 sentences, respectively. With the total score of two points per sentence, the total scores of 139 and 279 sentences were 278 and 558 points, respectively. Of the total scores, the first-year and the third-year students scored 57.55% and 61.69%, respectively. Their average scores per sentence of the first-year and the third-year English majors were 1.15 and 1.23 out of the total score 2. The results indicated that when the target multi-word verbs were used in sentences, the third-year English majors generally scored more than the first-year English majors. The results also indicated that these two groups of students had a moderate ability to use the target multi-word verbs in written sentences. If their sentences contained a given verb with a target preposition, their sentences were generally appropriate in terms of meanings but still contained some grammatical issues.

However, it should be noted that a statistical difference was not calculated due the concern that the scores may not reflect the real ability to use the multi-word verbs in written sentences as the scores earned largely depended on the number of sentences written by two groups. That is, the number of sentences written by each group



which was the source of average scores was too much different as the number of sentences written by the third-year English majors (239 sentences) almost doubled that of the first-year English majors (139 sentences).

When compared by percentages, the sentences written for *concentrate on* and *sum up* by the first-year students and the sentences written for *conform to* and *compensate for* by the third-year students were scored the best as they scored 100% out of the sentences written. However, it should be noted that the percentage was calculated by the number sentences each group of students wrote by using the target preposition with a given verb. As the number of their written sentences for these four verbs was ranged from one to four sentences written by one to four students, the percentages did not inform the overall group performance in using each multi-word verb. Hence, instead of percentages, the raw scores were chosen to report the overall group performances of the multi-word verbs.

Generally, the number of sentences which were written with a target multi-word verb reflected the raw score for that verb item. For example, the verbs with the highest frequencies of use in written sentences including *focus on* and *rely on* scored the best in both groups of students. In the first-year and the third-year students, *focus on* ( $f = 26$ :  $f = 48$ ) was scored 40 (76.92%) and 86 (86.58%), respectively, and *rely on* ( $f = 22$ :  $f = 24$ ) was scored 24 (54.55%) and 30 (76.25%), respectively.

On the other hand, there were some cases which did not follow the earlier trend. In the first-year students, the trend became fluctuating with the verbs of which the frequency of use was lower than four. In the third-year students, *participate in* and *contribute to* were used by 20 students and 21 students, respectively; however, their score for *participate in* (30.5, 76.25%) was way better than the score from *contribute to* (13.5, 32.14%). The trend can be depicted that for the multi-word verbs such as *participate in* and *contribute to*, the students might have similar chances to pair the combinations correctly; however, their ability to use them with a grammatical accuracy and a meaning appropriateness might not be the same. In this case, the third-year students were more likely to use *participate in* accurately and appropriately than using *contribute to* in their written sentences.



**According to research question 3:**

3. What are the sources of errors in their use of English multi-word verbs?

3.1 What are students' variations of prepositions used with the target verbs?

3.2 Are there any variations of verb + preposition collocations influenced by the interlingual transfer?

3.3 Are there any variations of verb + preposition collocations influenced by the intralingual transfer?

The data from the sentence completion test were analyzed to reveal the participants' variations of use of the given verbs as well as the sources of errors of using the verbs. The results showed that both first-year and third-year English majors were more likely to use the provided verbs without a preposition far more frequently than using them with other prepositions. The answers for individual verb items largely consisted of this type of variations. Generally, the frequencies of using the provided verbs without a preposition were higher in the first-year students than in the third-year students in most cases except for the verbs *contribute to*, *derive from*, *shift to*, *conform to*, *reside in*, *compensate for*, and *quote as*. That the third-year English majors generally used a more variety of non-target prepositions than the first-year English majors implied that the students with more years of study began to recognize that the verbs needed to be followed by a preposition even though the preposition of their choice was incorrect. On the other hand, the students with less years of study did not even know that the provided verbs had a special use or required a preposition.

Various non-target prepositions were used across different verb items and across two groups of students. Ranked by frequencies of appearances, *to* ( $f = 128$ ) was used as the most non-target preposition, followed by *with* ( $f = 78$ ), *in* ( $f = 72$ ), *on* ( $f = 49$ ), *from* ( $f = 28$ ), *of* ( $f = 21$ ), *for* ( $f = 18$ ), *by* ( $f = 16$ ), *into* ( $f = 8$ ), *about* ( $f = 7$ ), *out* ( $f = 7$ ), *at* ( $f = 6$ ), *between* ( $f = 2$ ), and *off* ( $f = 2$ ).

The most frequent non-target prepositions were varied when determined by individual verb items. The preposition *to* was used as the most frequent non-target preposition with the verbs *transform* ( $f = 34$ ), *benefit* ( $f = 13$ ), *reside* ( $f = 8$ ), *coincide* ( $f = 7$ ), *concentrate* ( $f = 7$ ), *exclude* ( $f = 7$ ), *intervene* ( $f = 7$ ), *derive* ( $f = 6$ ), *file* ( $f = 5$ ), *quote* ( $f = 5$ ), *recover* ( $f = 5$ ), *remove* ( $f = 5$ ), *sum* ( $f = 5$ ), *dispose* ( $f = 4$ ), and *release* ( $f = 3$ ). The preposition *with* was used as the most frequent non-target preposition with

the verbs *link* ( $f = 18$ ), *occur* ( $f = 16$ ), *participate* ( $f = 6$ ), *adapt* ( $f = 5$ ), *expose* ( $f = 5$ ), and *consist* ( $f = 2$ ). The preposition *in* was used as the most frequent non-target preposition with the verbs *rely* ( $f = 11$ ), *contribute* ( $f = 7$ ), *restore* ( $f = 6$ ), *compensate* ( $f = 4$ ), *submit* ( $f = 4$ ), *conform* ( $f = 3$ ), and *focus* ( $f = 2$ ).

As these variations were inappropriate to the contexts of the sentences provided in the sentence completion test, they were considered errors which were further analyzed for the sources of errors. Based on the participants' translations of the verb items in the same test, fourteen erroneous patterns of the provided verbs were found to be influenced by interlingual transfer. These were *link with*, *occur with*, *benefit to*, *attribute from*, *coincide to*, *participate with*, *expose with*, *remove to*, *concentrate with*, *coincide into*, *concentrate in*, *remove out*, *consist with*, *quote in*, and *sum about*.

It is interesting to note that the non-target preposition *with* was the most popular choice among two groups of participants. The use of this preposition was largely influenced by the participants' L1 as in the Thai language *with* is equivalent to a Thai preposition *กับ* (*kap*), which is one of the most frequent preposition in the Thai language. This finding was bolstered by the retrospective interview's data. In elaborating the reasons of using *with* in some verbs, some students translated the meanings of those verbs, and *กับ* was combined in their translations.

The results in this part bolstered the reports of pioneer collocational studies (Boonyasquan, 2006; Detdamrongpreecha, 2015; Fan, 2009; Farghl and Obiedat, 1995; Hama, 2010; Huang, 2001; Liu, 1999; Mongkolchai, 2000; Naba'h and Al-Shara'h, 2011; Neselhauf, 2003; Phoochareosil, 2011; Phoochareosil, 2013; Yamashita and Jiang, 2010; Yumanee and Phoochareonsil, 2013) as they also emphasized the influence of the interlingual transfer on deviations of collocations. In consistent to Gisaki's (1996) report, collocations with a preposition were more likely to cause the interlingual transfer in the participants of the present study. In particular, the Thai students' selections of prepositions in this study were comparable to those of the first-year Thai students in Phoochareonsil's (2013) study as their choices of prepositions were largely selected based on word-for-word translations from the Thai language to English.



In addition to L1 transfers or interlingual transfers, other important sources of errors including intralingual transfers and others were found. Firstly, the participants largely lacked lexical knowledge and collocational knowledge. There was solid evidence showing that the participants lacked vocabulary knowledge including no-responded test items and the responses of which their translations of the given verbs were incorrect. A number of their translations were guessed since their translations consisted of random and unrelated translations, approximate translations, and no translations. Even if they provided correct translations of the provided verbs, they lacked collocational knowledge as they often used the given verbs without a preposition or with a non-target preposition. As the data of the retrospective interview reported, the reasons why the students did not fill in a preposition or left several blanks empty were because they did not know the verbs, or if they knew, they were unsure if the verbs needed a preposition or not.

The lack of lexical knowledge and collocational knowledge affected L2 learners' use of different strategies to compensate their language limitations including interlingual transfers and intralingual transfers. As supported by several studies, L2 learners knew only a limited range of collocations (Fan, 2009; Laufer and Waldman, 2010). This problem is similar to the Thailand's context as Thai learners even in advanced levels had problems in recognizing collocations and were not proficient users of collocations (Khittikote, 2011). Consistently, the present study's participants more frequently used the provided verbs without a preposition even if they are multi-word verbs.

Based on Hong, et al.'s (2011) classification of intralingual transfers, the data analysis revealed the evidence indicating that the participants' ignorance of rule restrictions and approximate translations caused collocational errors in the use of the provided verbs.

Ignorance of rule restrictions is initiated by "the inappropriate use of prepositions in which the learners attempt to use the same linguistic elements of a particular structure acquired previously without considering their collocational and grammatical restrictions" (Hong, et al., 2011, p.41). Ignorance of rule restrictions was also one of the most important sources of errors in the studies by Li (2005) and Hong, et al. (2011). Especially, as Hong, et al. (2011) observed, almost all errors of



prepositions were significantly affected by this source of errors. Their Malaysian school-student participants tended to overlook collocational restrictions and use the same linguistic element, usually the preposition, of a particular structure they had acquired earlier. For the present study, the evidence of ignorance of rule restrictions consisted of the following cases: using the passive-voice structures, using a noun + preposition structure, and using a verb followed by an adverbial phrasal structure.

The results in this part also advocated the reports of the studies by Bhumadhana (2010; Hong, et al., 2011; Li, 2005; Kuo, 2009; Wangsirisombat, 2011) that an approximate translation was one of the most important sources of errors in English collocations. Approximations are caused by the use of language items which “share similar phonological and morphological features with the correct items or have semantic affinity with the target items” (Hong, et al., 2011, p. 41). For the present study, the incorrect use of preposition with given verbs was caused by semantic affinity of some prepositions including *in*, *to*, and *into*. As these prepositions can refer to a movement in the same directions, some students replaced one with the other frequently. For example, a number of students used *to* in place of *into* with the verb *transform*, and some of them used *to* in place of *in* with the verb *participate*. The participants’ approximate translations of some verbs also caused incorrect selections of prepositions. For instance, instead of using *removed* with the preposition *from*, some learners used the verb with the prepositions *in* and *on* as a result of approximate translations of *remove* by the word *move*.

Meanwhile, use of synonyms, which were mentioned by several studies (Fan, 2009; Farghl and Obiedat, 1995; Hama, 2010; Kuo, 2009; Li, 2005; Liu, 1999; Miyakoshi, 2009; Mongkolchai, 2000; Phoochareonsil, 2011; Wangsirisombat, 2011; Yumannee and Phoochareonsil, 2013), was not apparent in the present study. The difference can be attributed to the participants’ lack of lexical knowledge. As they did not know the meanings of some given words at all, they did not know those words’ synonyms. What they did was trying to approximate the meanings of the given verbs based on other words which consisted of shared phonological and morphological features. Based on the participants’ translations of the multi-word verbs, approximate translations of words with morphological and phonological affinity were found in the given verbs as follows: *consist* = *resist*, *concentrate* = *control*, *dispose* = *disappear*,

*conform = confirm, contribute = construct or conclude, expose = explode, recover = discover or cover, restore = store, and submit = admit.*

**According to research question 4:**

4. What are the difficulties perceived by the first-year students and the third-year students, majoring in English?

The semi-structured interviews reported six common important difficulties affecting the participants' use of English multi-word verbs. These were:

1. Lack of knowledge in multi-word verbs
2. Failures to recognize multi-word verb items due to the characteristics of multi-word verbs
3. Failures to recognize multi-word verb items due to personal behaviors in vocabulary learning
4. Lack of exposure to multi-word verb items
5. Lack of use of multi-word verbs in real-life situations
6. Lack of collocational awareness

Failures to recognize multi-word verb items due to the characteristics of multi-word verbs, lacks of exposure to multi-word verb items, and lack of collocational awareness were consistent to the reports of prior studies on difficulties in learning and using L2 collocations.

The report that most interviewees had difficulties in recognizing multi-word verbs than one-word verbs lends support to Phongphio and Schmitt's (2006) study and Siyanova and Schmitt's (2007) study. Phongphio and Schmitt (2006) revealed that their Thai participants in undergraduate levels from different fields of studies did not recognize the meanings of half of the 33 multi-word verbs even if these verbs were less difficult than the target multi-word verbs of the present study. Meanwhile, Siyanova and Schmitt (2007) found that advanced non-native English speakers were more likely to use one-word verbs than multi-word verbs.

Some interviewees reported that one-word verbs were easier than multi-word verbs because one verb could be made different multi-word verbs when paired with different prepositions, and some combinations could not be directly translated from their L1. Based on the results, two reasons can be inferred as important causes of difficulties in learning and using of English multi-word verbs in the participating



English majors. These were the variations of prepositions and the deviations of meanings. While the variations of prepositions were not widely reported as an important cause of difficulties in the pioneer studies, deviations of meanings were largely mentioned in many studies, using two different terms including the lack of transparency and/or the lack of congruence. According to Koya (2003; Siyanova and Schimitt, 2007; Yamashita and Jiang, 2010; Henriksen, 2013), some collocations and multi-word verbs were more difficult to L2 learners due to the lack of semantic transparency and the incongruence with L1 collocations in the same items. In terms of the lack of transparency, the meanings of the whole of some collocations or multi-word verbs do not reflect the meanings of their parts, while incongruence refers to the differences between the collocations in the target language and learners' L1 collocations in the same items. EFL learners including the participants in this study largely relied on word-for-word translations when dealing with collocations and multi-word verbs (Boonyasquan, 2006; Detdamrongpreecha, 2015; Fan, 2009; Farghl and Obiedat, 1995; Hama, 2010; Huang, 2001; Liu, 1999; Mongkolchai, 2000; Naba'h and Al-Shara'h, 2011; Neselhauf, 2003; Phoochareosil, 2011; Phoochareosil, 2013; Yamashita and Jiang, 2010; Yumanee and Phoochareosil, 2013). When some collocations or multi-word verbs lacked transparency or congruence, learning and using these verb items could initiate difficulties even in the third-year English majors of the present study. For example, the English majors in both groups tended to use the multi-word verbs which consisted of the preposition *to* incorrectly by using the preposition *with* in place of *to* due to word-for-word translations.

In addition, the lack of exposure and the lack of use in real-life situations were also important sources of difficulties. Some students reported that formal English classes in their high-school levels focused on tenses more than focusing on exposing them to different multi-word verbs. Even though they found this kind of verbs in movies and the Internet, they were easy combinations. An interviewee reported that although she was exposed to multi-word verbs through formal classroom instruction, she lacked opportunities to use them in real life situations, and this reason made her forget the earlier exposed multi-word verbs. The findings were consistent to the reports by Siyanova and Schimitt (2007) and Henriksen (2013) that insufficient exposure to L2 collocations and the target language could particularly interfere L2 learners' learning



and acquisition of L2 collocations. On the other way around, with long-term exposure, L2 learners had more frequent use of multi-word verbs. As Siyanova and Schmitt (2007) found, L2 learners with more than 12-month exposure to natural L2 environment had significantly lower preference to one-word verbs.

Similar to the discoveries by Huang (2001) and Naba'h (2012), the lack of collocational awareness was another crucial source of difficulties in using multi-word verbs. Some interviewee indicated that they knew the meaning, but did not know which preposition should be used with the provided verbs. When asked to provide a preposition after a simple verb, a student provided an incorrect preposition such as *listen on* instead of *listen to*. Especially, some students did not include collocational knowledge as important features of vocabulary knowledge but mentioned about parts of speech and meanings.

While the earlier difficulties were consistent to research literature, the lack of declarative knowledge of multi-word verbs and learners' personal behaviors in vocabulary learning have never been exposed by pioneer studies. This could be attributed to two reasons. As one reason, pioneer researchers might start their research projects with an assumption that their learners had some background knowledge about collocations and multi-word verbs. Another reason is that their data collection rarely involved interviewing which usually reveals the participants' subjective views towards an issue.

In this study, the lack of declarative knowledge of multi-word verbs was reported by all interviewees. When asked about different terms related to multi-word verbs such as *multi-word verbs*, *phrasal verbs*, or *prepositional verbs*, they were unfamiliar with all of them and unable to tell what they were. What they did was guessing from the translations of the terms and asked the interviewer if what they guessed was correct. When providing a short elaboration about the characteristics of these verbs, the interviewees took time to recall some examples of the verbs by themselves. Moreover, when interviewees were given easier examples of multi-word verbs such as *stand up*, *sit down*, *listen to*, and etc., they accepted that they had learned and experienced them before, but did not know what they were formally called.

As an unexpected finding from the interview, some students stated that their personal behaviors in vocabulary learning also caused difficulties in using multi-word verbs. Some students lacked attention to informal exposures and lacked reviews after exposures to multi-word verbs. Moreover, one student reported that she would review or recite vocabulary only before the test.

### **Recommendations, Limitations, and Implications of the Study**

Although the present study has provided different dimensions dealing with use of multi-word verbs by the two groups of English majors, the study had some limitations.

Firstly, although the study gathered the data from more than 100 students from two undergraduate levels, the results are still limited to be generalized that the students majoring differently and studying in different universities in Thailand will have the same problems in using English multi-word verbs as the students in the present study did. Hence, there is still a room for further studies to investigate the same issues in various groups of Thai students and other EFL learners in other countries.

Secondly, as the target multi-word verbs were selected from Coxhead's (2000) Academic Word List, which is a list of frequent one-word academic vocabulary, the multi-word verbs which are frequent when using in pairs may be absent from this study. Further studies could fill this gap of the present study by employing a collocation list such as Durrant's (2009) academic collocation list of which many verbs are not found in Coxhead's list. For example, the multi-word verbs including *differ from*, *allow to*, and *lead to* appear in Durrant's (2009) list but were absent from Coxhead's as they consist of the verb which are not academic words, but being used with the prepositions, they frequently appear in academic texts.

Thirdly, avoiding hinting that the given verbs had a special use or require a following preposition, the sentence building test could not control the students to use the given verbs with the target prepositions. Therefore, there were sentences of which the verbs were used correctly without the target preposition as some verbs were also intransitives, and some verbs had more than one correct structure. Due to this limitation, these types of responses were excluded from the scores to inform the students' ability to use the given verbs with the target preposition. Further studies which aiming at



measuring learners' production of multi-word verbs may need to provide the learners choices of prepositions. However, it should be noted that the sentences resulted from this adaptation were the result of hinting the special use of the verbs, e.g. that verbs require a preposition in use.

In spite of certain limitations, the present study's findings provided all-around discoveries on the use of multi-word verbs by Thai undergraduate students in different years of study. The discoveries involved both quantitative and qualitative evidence which revealed three dimensions of Thai undergraduate students' use of multi-word verbs. These were: the ability to select a correct preposition for the provided verbs and use these combinations in their written sentences, the variations and the sources of errors in using multi-word verbs focusing on the incorrect use of preposition collocations, and the learners' perceived difficulties of using multi-word verbs.

The comparison of the quantitative data indicated that learners in different undergraduate levels of study had a significant different performance in their use of multi-word verbs. In all dimensions of use, the third-year English majors performed significantly better than the first-year English majors in providing the correct preposition for the provided verbs, providing the correct or appropriate meanings for the combinations, and using the target combinations more in their written sentences. However, it should be noted that despite two years of exposure, the third-year students did not perform exceptionally well in using the target multi-word verbs. Instead, they struggled to receive more than 50% of the total scores from different types of test.

Although these quantitative results by themselves are not distinctive to the pioneer findings, there are very special details in the discoveries which could be priceless to educational stakeholders. These were the different levels of difficulties of different English academic multi-word verbs by two groups of students. Tables 72 to 74 were from the syntheses of quantitative results demonstrated in the Tables 29 to 31 which were tabulated to answer the research question 1.3. The classifications based on the levels of difficulties of the target multi-word verbs were the crucial products of the syntheses. The three tables consist of three classifications of the academic multi-word verbs based on the levels of difficulties in using multi-word verbs in three dimensions. These include providing the correct prepositions (type P), giving the correct/appropriate

meanings (type M), and providing the correct prepositions and giving the correct/appropriate meanings (type PM).

**Table 71 Levels of difficulty of multi-word verbs based on different criteria**

Levels	Levels of Difficulty	Criteria
1	Simple	There were no significant differences in the scores obtained by two groups of students. The average score for one verb item obtained by the third-year students was higher than 0.50.
2	Moderately simple	The third-year students outperformed the first-year students at a significant level of $p < 0.05$ . The average score for one verb item obtained by the third-year students was higher than 0.50.
3	Moderate	The third-year students outperformed the first-year students at a significant level of $p < 0.05$ . The average score for one verb item obtained by the third-year students was less than 0.50.
4	Moderately difficult	There were no significant differences in the scores obtained by two groups of students. The average score for one verb item obtained by the third-year students was less than 0.50.
5	Difficult	Both groups of students scored zero.

As demonstrated in Table 71, the difficulty of multi-word verbs was classified into five levels based on five criteria. The key measure behind the criteria was the extent to which the students in two groups can score from the test of multi-word verbs. If their average scores of a multi-word verb were equally high without a statistical significance, that verb was equally *simple* for both groups. On the other way around, if their average scores of a multi-word verb were equally low without a statistical significance, that verb was *moderately difficult* for both groups. If both groups of students scored zero from a multi-word verb, that verb is *difficult*. However, if the third-year students significantly



outperformed the first-year students and the average score for one verb item obtained by the third-year students was higher than 0.50, that multi-word verb is *moderately simple*. Meanwhile, if the average score for one verb item obtained by the third-year students was lower than 0.50, the level of difficulty of that multi-word verb is *moderate*.

**Table 72** Classification of English academic multi-word verbs based on levels of difficulties measured by the scores from type P (preposition)

Levels of difficulty	Multi-word verbs	Criteria
1 Simple	<i>rely on</i>	There were no significant differences in the scores obtained by two groups of students. The average score for one verb item obtained by the third-year students was higher than 0.50.
2 Moderately simple	<i>focus on</i>	The third-year students outperformed the first-year students at a significant level of $p < 0.05$ . The average score for one verb item obtained by the third-year students was higher than 0.50.
3 Moderate	$\bar{x} > 0.20$ in average: <i>consist of, link to, release from, and remove from</i> $\bar{x} < 0.20$ in average: <i>benefit from, concentrate on, coincide with, contribute to, derive from, dispose of, occur to, reside in, shift to, submit to, and sum up</i>	<p>The third-year students outperformed the first-year students at a significant level of <math>p &lt; 0.05</math>.</p> <p>The average score for one verb item obtained by the third-year students was less than 0.50.</p>

Table 72 (cont.)

Levels of difficulty	Multi-word verbs	Criteria
4 Moderately difficult	$\bar{x} < 0.20$ in average: <i>adapt to</i> , <i>attribute to</i> , <i>compensate for</i> , <i>conform to</i> , <i>exclude from</i> , <i>expose to</i> , <i>file for</i> , <i>intervene in</i> , <i>participate in</i> , <i>recover from</i> , <i>restore to</i> , and <i>transform into</i>	There were no significant differences in the scores obtained by two groups of students. The average score for one verb item obtained by the third-year students was less than 0.50.
5 Difficult	<i>quote as</i>	Both groups of students scored zero.

Table 73 Classification of English academic multi-word verbs based on levels of difficulties measured by the scores from type M (meaning)

Levels of difficulty	Multi-word verbs	Criteria
1 Simple	<i>adapt to</i> , <i>link to</i> , <i>occur to</i> , and <i>remove from</i>	There were no significant differences in the scores obtained by two groups of students. The average score for one verb item obtained by the third-year students was higher than 0.50.
2 Moderately simple	<i>concentrate on</i> , <i>consist of</i> , <i>focus on</i> , <i>participate in</i> , <i>release from</i> , <i>rely on</i> , <i>sum up</i> , and <i>transform into</i>	The third-year students outperformed the first-year students at a significant level of $p < 0.05$ . The average score for one verb item obtained by the third-year students was higher than 0.50.



Table 73 (cont.)

Levels of difficulty	Multi-word verbs	Criteria
3 Moderate	$\bar{X} > 0.20$ in average: <i>coincide with, restore to,</i> <i>and submit to</i>  $\bar{X} < 0.20$ in average: <i>conform to, derive from,</i> <i>dispose of, and shift to</i>	The third-year students outperformed the first-year students at a significant level of $p < 0.05$ .  The average score for one verb item obtained by the third-year students was less than 0.50.
4 Moderately difficult	$\bar{X} > 0.20$ in average: <i>expose to</i> and <i>recover from</i>  $\bar{X} < 0.20$ in average: <i>attribute to, benefit from,</i> <i>compensate for, contribute to,</i> <i>exclude from, intervene in, quote as, and reside in</i> <i>file for</i>	There were no significant differences in the scores obtained by two groups of students.  The average score for one verb item obtained by the third-year students was less than 0.50.
5 Difficult	<i>file for</i>	Both groups of students scored zero.

Table 74 Classification of English academic multi-word verbs based on levels of difficulties measured by the scores from type PM (preposition + meaning)

Levels of difficulty	Multi-word verbs	Criteria
1 Simple	-	There were no significant differences in the scores obtained by two groups of students. The average score for one verb item obtained by the third-year students was higher than 0.50.

Table 74 (cont.)

Levels of difficulty		Multi-word verbs	Criteria
2	Moderately simple	<i>focus on</i> and <i>rely on</i>	The third-year students outperformed the first-year students at a significant level of $p < 0.05$ . The average score for one verb item obtained by the third-year students was higher than 0.50.
3	Moderate	$\bar{X} > 0.20$ in average: <i>consist of</i> , <i>link to</i> , <i>recover from</i> , <i>release from</i> , and <i>sum up</i> $\bar{X} < 0.20$ in average: <i>benefit from</i> , <i>coincide with</i> , <i>concentrate on</i> , <i>contribute to</i> , <i>dispose of</i> , <i>occur to</i> , <i>participate in</i> , <i>remove from</i> , and <i>submit to</i>	The third-year students outperformed the first-year students at a significant level of $p < 0.05$ . The average score for one verb item obtained by the third-year students was less than 0.50.
4	Moderately difficult	$\bar{X} < 0.20$ in average: <i>adapt to</i> , <i>attribute to</i> , <i>conform to</i> , <i>compensate for</i> , <i>derive from</i> , <i>exclude from</i> , <i>expose to</i> , <i>restore to</i> , <i>shift to</i> , and <i>transform into</i>	There were no significant differences in the scores obtained by two groups of students. The average score for one verb item obtained by the third-year students was less than 0.50.
5	Difficult	<i>file for</i> , <i>intervene in</i> , <i>quote as</i> , and <i>reside in</i>	Both groups of students scored zero.



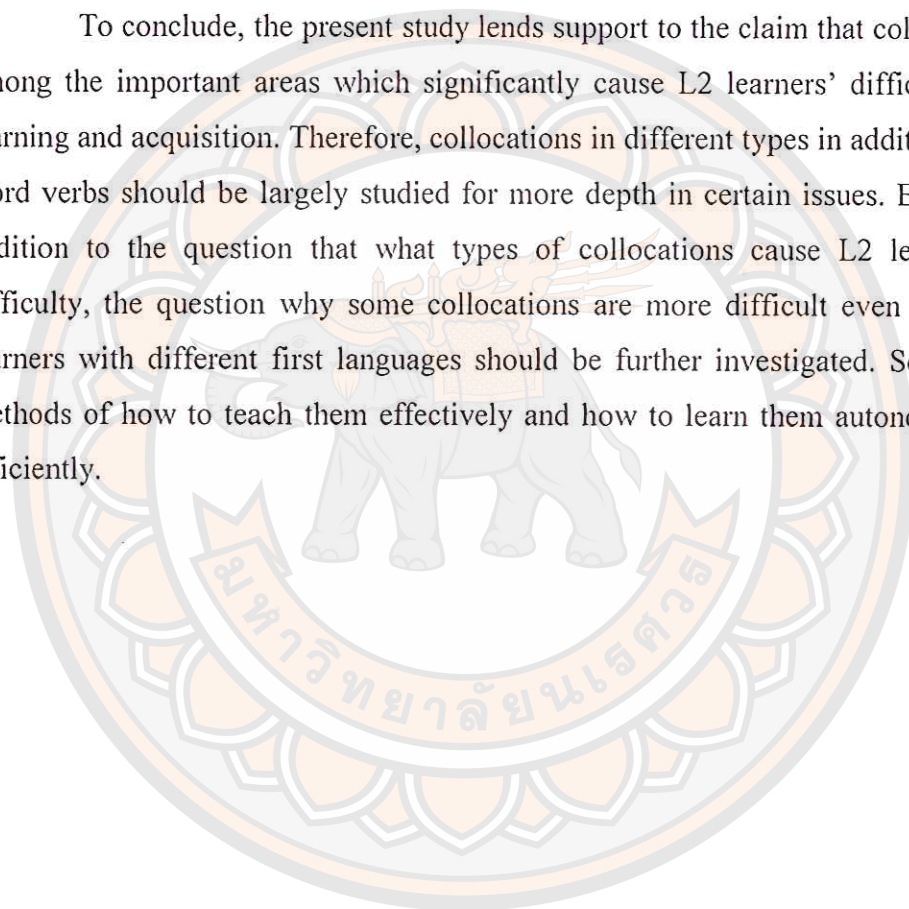
These classifications of English academic multi-word verbs based on different levels of difficulties are particularly advantageous for L2 researchers and practitioners. For L2 researchers, it could be the resources for further analyses on why some combinations of verbs and prepositions were more difficult to learn and acquire in spite of considerable time of exposure. Especially, based on the three tables, further research studies should be conducted to explore the reasons why the multi-word verbs which are *moderately difficult* and *difficult* are similarly difficult for the students in different years of study. In addition, if neither levels of proficiency nor the length of exposure did not initiate the different results, what are important factors, either from an internal source (e.g. the verbs' characteristics) or from an external source (e.g. classroom instruction, L2 teachers' perceptions toward the importance of multi-word verbs) which may affect the learners' difficulties to learn and acquire these multi-word verbs. Especially, the comparison across different sets of multi-word verbs used by various groups of L2 learners should be conducted to investigate common underlying reasons which explain why some multi-word verbs are more difficult even in advanced learners than other multi-word verbs.

For L2 and EFL practitioners, especially Thai teachers of English, the classifications of the English multi-word verbs could help them plan effective English lessons on multi-word verbs and provided them a source of awareness in teaching multi-word verbs in undergraduate levels. As the levels of difficulties of academic multi-word verbs are different, English teachers should expose their students to the verbs based on their levels of difficulty, from simple to complicate ones, and focus on the verbs which are difficult to both groups of students.

The qualitative data reported important sources of incorrect selections of prepositions for the provided verbs and the perceived difficulties in using multi-word verbs of the participants. The results for these issues are particularly advantageous for L2 and EFL teachers as they can be the resources of what should be focused on in formal instructions. As certain strategies can cause collocational errors, it is particularly important to raise their learners' awareness of using collocations in classroom instructions. Based on the results from error analysis, the strategies which should be widely talked with Thai learners were word-for-word translations, ignorance of rule restrictions, and approximate translations. To reduce errors from using these strategies,

English teachers may expose their learners to restrict collocations and exemplified how the use of such strategies can cause errors. Not only that, as the students had a limited exposure to multi-word verbs, English teachers should focus on explicit teaching of various multi-word verbs which are frequently used based on their course content. In addition to explicit teaching, the repeated practices of the exposed multi-word verbs throughout a course are essential to transform the input into intake and foster the acquisition of multi-word verbs.

To conclude, the present study lends support to the claim that collocations are among the important areas which significantly cause L2 learners' difficulties in L2 learning and acquisition. Therefore, collocations in different types in addition to multi-word verbs should be largely studied for more depth in certain issues. Especially, in addition to the question that what types of collocations cause L2 learners more difficulty, the question why some collocations are more difficult even in advanced learners with different first languages should be further investigated. So should the methods of how to teach them effectively and how to learn them autonomously and efficiently.







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## APPENDIX A RESEARCH INSTRUMENTS

1

Student's name \_\_\_\_\_ ID. \_\_\_\_\_ Level. \_\_\_\_\_

คำชี้แจง: แบบทดสอบนี้มีวัตถุประสงค์เพื่อทดสอบการใช้คำกริยาภาษาอังกฤษในนักศึกษามหาวิทยาลัยในสาขาวิชาภาษาอังกฤษ โดยแบบทดสอบประกอบไปด้วย 2 ส่วน ได้แก่ แบบทดสอบการเขียนประโยค และ แบบทดสอบเติมคำ โดยใช้คำกริยาภาษาอังกฤษที่ให้มาให้เลือกเติมที่เหมาะสมที่สุด และใช้เวลาประมาณ 2 ชั่วโมง ในการทำข้อสอบ

### Part I: Sentence Building Test

Directions: Write a complete sentence using the given verb.

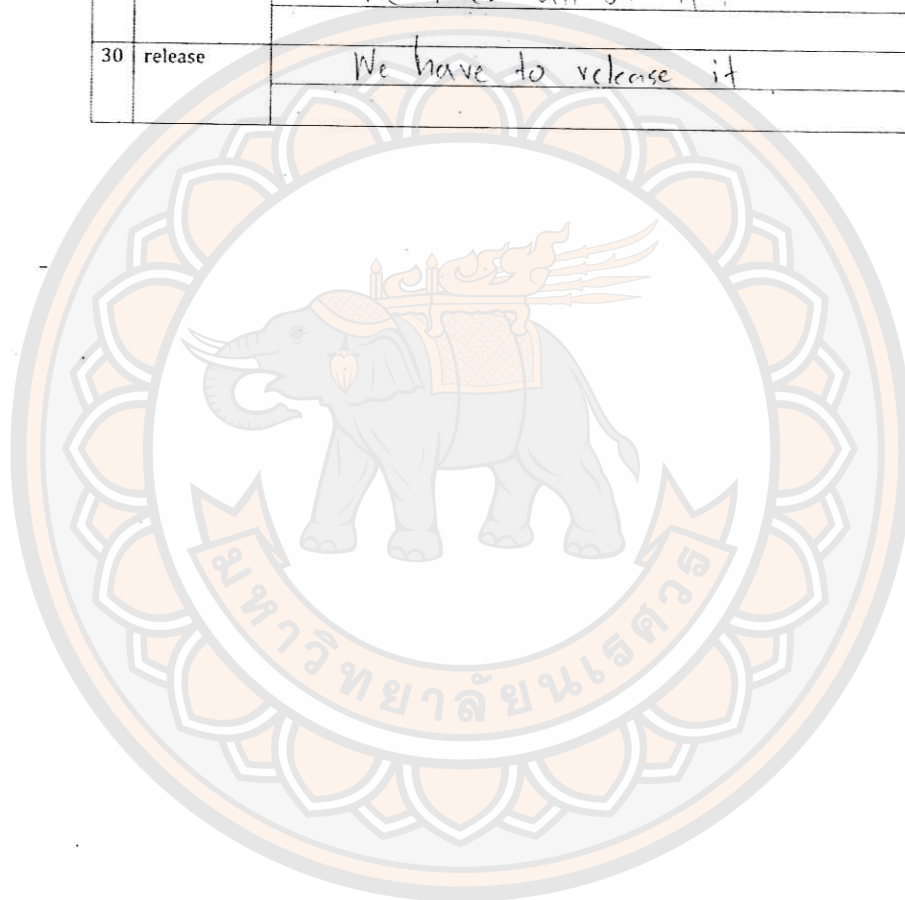
คำสั่ง: จงเขียนประโยคที่สมบูรณ์ 1 ประโยคจากคำกริยาที่ให้มาในแต่ละข้อ

	Verb	Sentence
1	consist	I will consist the work.
2	contribute	We contribute it by ourself.
3	remove	It was removed.
4	derive	I derive the man next to you.
5	concentrate	It was concentrated.
6	participate	You can participate it.
7	rely	I rely it for a long time.
8	focus	I'm focusing on this thing. ✓
9	attribute	It was attributed by this way.
10	submit	Can you submit it?

	Verb	Sentence
11	adapt	I can adapt this subject.
12	benefit	It was benefited by this man.
13	coincide	It was coincided.
14	expose	We should expose them.
15	transform	We can transform this thing.
16	dispose	It was disposed.
17	occur	- It occurs in this city.
18	link	We can link this information together.
19	conform	We have just conformed it.
20	recover	It was recovered.
21	sum	He sums this thing.
22	exclude	It was excluded.
23	compensate	She compensates the work.
24	restore	It was restore
25	reside	It was resided.



	Verb	Sentence
26	quote	We quote it .
27	intervene	He was intervened .
28	shift	I shift the ball .
29	file	He files all of it .
30	release	We have to release it .



Student's name \_\_\_\_\_ ID. \_\_\_\_\_ Level. \_\_\_\_\_

### Part II: Sentence Completion Test

**Directions:** The given verbs in brackets are grammatically correct, but something in sentences is missing. Use the given verb and any other word(s) you feel are necessary to complete the sentence in the first blank. Then, define or give the meaning of the word(s) you filled in the Thai language in the second blank.

คำชี้แจง: คำกริยาในวงเล็บถูกต้องตามหลักไวยากรณ์แล้วแต่ยังไม่ถูกต้องที่ลุลจให้คำกริยาที่ใช้ไว้ในวงเล็บและคำอื่นๆ ที่จำเป็นมาเติมลงในช่องว่างด้านหน้าเพื่อทำให้ประโยคถูกต้องที่สุด และแปลความหมายของคำกริยาที่เติมลงไปนั้นลงในช่องว่างถัดมาเป็นภาษาไทย

- ① Use: Most of one-parent families consist with (consist) a mother trying to cope without a father.  
 Meaning: หมายถึง ประกอบด้วย
2. Use: Students should contribute to (contribute) group discussions in order to improve their speaking skills in English.  
 Meaning: หมายถึง มีส่วนร่วม
3. Use: These books are for reference only and are not to be removed from (removed) the library.  
 Meaning: หมายถึง ได้ออกจาก
4. Use: His working system is \_\_\_\_\_ (derived) certain modern management theories.  
 Meaning: หมายถึง \_\_\_\_\_
- ⑤ Use: Planners concentrate with (concentrate) the structure of industries and markets and the longer-term profits.  
 Meaning: หมายถึง ให้ความสำคัญ
6. Use: In their second year, the children become able to walk, leave the hut, and begin to participate in (participate) the life outside.  
 Meaning: หมายถึง มีส่วนร่วม



7. Use: The beauty of renewable energy is that it doesn't rely on (rely) one source only, such as wind or solar, but on a whole range of different sources.  
Meaning: หมายถึง ขึ้นอยู่กับ
8. Use: The survey will focus on (focus) social development and will be taken largely from the woman's opinions.  
Meaning: หมายถึง ให้ความสนใจ
9. Use: Some diseases can be attributed to (attributed) stress.  
Meaning: หมายถึง เพราะ
10. Use: A case file is usually submitted to (submitted) the court after a careful police investigation.  
Meaning: หมายถึง ส่ง
11. Use: Animals migrating to a dry area have to adapt with (adapt) high temperatures and shortage of water.  
Meaning: หมายถึง ปรับตัว
12. Use: Western medicine would benefit for (benefit) Eastern ideas such as yoga.  
Meaning: หมายถึง ช่วยให้
13. Use: The doctor explained to her how hard it sometimes was for the sperm to coincide with (coincide) the eggs.  
Meaning: หมายถึง พบ
14. Use: The body can manufacture its own vitamin D if it is exposed (exposed) sunlight.  
Meaning: หมายถึง สัมผัส

15. Use: We are surprised that an overweight lady can transform to (transform) a slimmer, more vivacious, and prettier one.

Meaning: หมายถึง เปลี่ยนแปลง

16. Use: London has a major problem in finding room to \_\_\_\_\_ (dispose) all its rubbish.

Meaning: หมายถึง \_\_\_\_\_

17. Use: Some diseases such as colon cancer may occur to (occur) someone who has been consuming unhealthy foods for a long period of time.

Meaning: หมายถึง เกิดขึ้น

18. Use: Thailand is linked to (linked) Laos because of a shared history and culture.

Meaning: หมายถึง เชื่อมต่อกัน

19. Use: Companies usually expect that their employees should \_\_\_\_\_ (conform) the wishes of the company.

Meaning: หมายถึง \_\_\_\_\_

20. Use: He has not recovered on (recovered) the wounds bitten by a dog for two months.

Meaning: หมายถึง รักษา

21. Use: At the end of every meeting, a secretary has a duty to write a report which sums up (sums) the important issues of the meeting.

Meaning: หมายถึง สรุป

22. Use: There are some foods that you should try to exclude with (exclude) your meals if you want to stay trim and slim.

Meaning: หมายถึง งด



23. Use: To \_\_\_\_\_ (compensate) slow service, the restaurant gave the customer a free drink and dessert.

Meaning: หมายถึง \_\_\_\_\_

24. Use: The machine must be restored in (restored) the initial positions in order to safely operate.

Meaning: หมายถึง คืนสู่

25. Use: The interests of a child \_\_\_\_\_ (reside) obtaining the best possible education.

Meaning: หมายถึง \_\_\_\_\_

26. Use: Albert Einstein was quoted up (quoted) saying: "The workings of the woman's mind amaze me."

Meaning: หมายถึง อ้างถึง

27. Use: The government usually controls over distribution of food and levels of profits, and thus \_\_\_\_\_ (intervene) the market.

Meaning: หมายถึง \_\_\_\_\_

28. Use: Recently, media attention seems to shift up (shift) video clips with violent content.

Meaning: หมายถึง เปลี่ยน

29. Use: A petition was filed to (filed) a permission to free four slaves with the St. Martin's Parish Police Jury.

Meaning: หมายถึง ส่งเอกสาร

30. Use: This man has just been released from (released) prison through the efforts of his wife.

Meaning: หมายถึง ปล่อย

### แบบตอบรับเข้าร่วมการสัมภาษณ์

สำหรับการวิจัยเรื่อง การใช้คำพหูรุธของนักศึกษามหาวิทยาลัยไทยที่เรียนต่างระดับชั้นปี

(Use of English Multi-word Verbs by Thai University Learners in Different Years of Study)

บทนำและวัตถุประสงค์

ข้าพเจ้า นางสาวนันท์ อินมณี นักศึกษาระดับปริญญาเอก คณะมนุษยศาสตร์ มหาวิทยาลัยนเรศวร จ.พิษณุโลก กำลังทำการศึกษาวิจัยในหัวข้อเรื่อง การใช้คำพหูรุธของนักศึกษามหาวิทยาลัยไทยที่เรียนต่างระดับชั้นปี ต้องการทำการสัมภาษณ์มีวัตถุประสงค์เพื่อทราบถึง เหตุผลที่นักศึกษาเลือกใช้คำพหูรุธมาคู่กับคำกริยาในการทำแบบทดสอบ และความเห็นของนักศึกษาต่อการใช้คำกริยาภาษาอังกฤษ ข้าพเจ้าจึงขอเชิญท่านเข้าร่วมในการวิจัยโดยการสัมภาษณ์ ดังกล่าว

กระบวนการ

ในการเข้าร่วมการวิจัย การสัมภาษณ์จะจัดขึ้นในเวลาและสถานที่ที่ท่านสะดวก การสัมภาษณ์ประกอบไปด้วย คำถามต่างๆ เกี่ยวกับการใช้คำกริยาภาษาอังกฤษคู่กับคำบุพบท และความเห็นเกี่ยวกับการใช้คำพหูรุธ โดยใช้เวลาไม่เกิน 30 นาที และจะมีการบันทึกเทปและจดบันทึกขณะสัมภาษณ์ และมีการถอดเทปสัมภาษณ์ในภายหลัง หากท่านยินยอมให้บันทึกเทปท่านสามารถให้หยุดการบันทึกเทปเมื่อไรก็ตามที่ท่านรู้สึกไม่สะดวกใจ แต่หากท่านไม่ยินยอมก็จะทำการจดบันทึกแทน และหลังจากสัมภาษณ์อาจมีการสอบถามข้อมูลเพิ่มเติมเท่าที่จำเป็นโดยผ่านทางอีเมลหรือช่องทางอื่นๆ ที่ท่านสะดวก

ประโยชน์ในการเข้าร่วมในการวิจัย

ท่านจะไม่ได้รับประโยชน์โดยตรงจากการเข้าร่วมการวิจัย แต่ผลจากการวิจัยจะช่วยพัฒนาการเรียนการสอนภาษาอังกฤษในระดับมหาวิทยาลัย เช่น ช่วยในการพัฒนาหลักสูตรและสื่อการสอน เป็นต้น

ความเสี่ยง

เนื่องจากการสัมภาษณ์ไม่ก้ำกึ่งในประเด็นส่วนบุคคลหรือประเด็นสาธารณะ แต่มุ่งศึกษาเกี่ยวกับความคิดเห็นต่างๆ ในการใช้คำกริยาภาษาอังกฤษ จึงไม่มีความเสี่ยงใดๆ ที่อาจทำให้ท่านไม่สบายใจจากการสัมภาษณ์

การรักษาความเป็นส่วนตัว

เพื่อรักษาความเป็นส่วนตัวของท่าน ในการรายงานผลการวิจัย จะใช้นามสมมติแทน

หากท่านมีข้อสงสัยอื่นๆ ท่านสามารถติดต่อผู้วิจัยได้โดยตรง ทางโทรศัพท์ 084-5055394 หรือทางอีเมล [nu\\_ya@hotmail.com](mailto:nu_ya@hotmail.com) และสามารถตรวจสอบเกี่ยวกับสถานะผู้วิจัยได้ที่ งานบริการวิชาการ คณะมนุษยศาสตร์ มหาวิทยาลัยนเรศวร โทร 055962067

การตอบรับเข้าร่วมการวิจัย

ข้าพเจ้ายินดีเข้าร่วมการวิจัยดังกล่าว โดยการให้สัมภาษณ์ โดย ☐ ยินยอมให้บันทึกเทป ☐ ไม่ยินยอมให้บันทึกเทป

( \_\_\_\_\_ )

ผู้ตอบรับเข้าร่วมการวิจัย

เบอร์โทรศัพท์ \_\_\_\_\_ อีเมล \_\_\_\_\_

☐ หากท่านต้องการให้ส่งบทสัมภาษณ์ที่ได้จากการถอดเทปทางอีเมลเพื่อตรวจสอบความถูกต้องในภายหลัง



## สำหรับผู้สัมภาษณ์

## หัวข้อในการสัมภาษณ์

นิสิตชื่อ \_\_\_\_\_ ชั้นปีที่ \_\_\_\_\_

## ส่วนที่ 1 เหตุผลที่นักศึกษาเลือกใช้คำพบพบมาใช้คู่กับคำกริยาในวงเล็บ (retrospective Interview)

1. ผู้สัมภาษณ์ชี้แจงข้อที่นักศึกษาไม่ได้ตอบและข้อที่ตอบถูกต้อง
2. ในแต่ละข้อที่ตอบผิด (ใช้คำกริยาผิดหรือไม่ได้ใช้) ให้ถามถึงวิธีการคิดเพื่อให้ได้คำตอบ

## ส่วนที่ 2 ความเห็นของนักศึกษาต่อการใช้คำพหูพริยภาษาอังกฤษ (semi-structured Interview)

ให้ผู้สัมภาษณ์ตั้งคำถามในหัวข้อดังต่อไปนี้

1. ความเข้าใจเกี่ยวกับ multi-word verbs
  - 1.1 ความเข้าใจเกี่ยวกับ multi-word verbs ที่ศึกษาได้แก่ phrasal verbs และ prepositional verbs
2. ความคุ้นเคยกับ multi-word verbs ในแบบทดสอบ
  - 2.1 ตัวอย่างของ multi-word verbs ที่นักศึกษารู้จัก
3. การได้รับความรู้ (exposure) เกี่ยวกับ multi-word verbs
  - 3.1 วิธีที่ได้รับความรู้เกี่ยวกับ multi-word verbs
  - 3.2 ระดับ (มาก-น้อยแค่ไหน) ที่ได้รับความรู้เกี่ยวกับ multi-word verbs
4. ปัญหาและอุปสรรคในการใช้ multi-word verbs
  - 4.1 การใช้ multi-word verbs ในชีวิตประจำวัน
  - 4.2 การใช้ multi-word verbs ในห้องเรียน
  - 4.3 ปัญหาและอุปสรรคโดยทั่วไปในการใช้ multi-word verbs
  - 4.4 ความคิดเห็นเกี่ยวกับการใช้ multi-word verbs เมื่อเปรียบเทียบกับ single-word verbs

คณะมนุษยศาสตร์ มหาวิทยาลัยนครสวรรค์	
รับที่: 4154	วันที่: 22 เม.ย. 2558
เวลา: 41.30	

งานบริการทางวิชาการ	
รับที่: 219	วันที่: 22 เม.ย. 2558
เวลา: 14.36H	

นาง สุวนันท์ อินมณี

นิสิตปริญญาเอก สาขาวิชาภาษาอังกฤษ

คณะมนุษยศาสตร์ มหาวิทยาลัยนครสวรรค์

8 เมษายน 2558

เรื่อง ขออนุญาตเก็บข้อมูลเพื่อการศึกษาวิจัย

เรียน คณะบดีคณะมนุษยศาสตร์

สิ่งที่แนบมาด้วย 1. แบบทดสอบ จำนวน 60 ข้อ

2. แบบสัมภาษณ์

ด้วยข้าพเจ้า นางสุวนันท์ อินมณี นักศึกษาระดับปริญญาเอก สาขาวิชาภาษาอังกฤษ คณะมนุษยศาสตร์ มหาวิทยาลัยนครสวรรค์ มีความประสงค์ขอเก็บข้อมูลเพื่อตรวจสอบคุณภาพของเครื่องมือที่ใช้ในการศึกษาวิจัยเรื่อง Use of English Multi-word Verbs by Thai University Learners in Different Proficiency Levels โดยขออนุญาตเก็บข้อมูลจากนักศึกษาสาขาวิชาภาษาอังกฤษปริญญาตรีชั้นปี 1 และ 3 และปริญญาโทชั้นปีที่ 1 และ 2 เก็บข้อมูลโดยการทำแบบทดสอบและมีการสัมภาษณ์นักศึกษา 9 คนจากนักศึกษากลุ่มดังกล่าว เกี่ยวกับข้อคิดเห็นต่างๆ เกี่ยวกับเรื่องที่ทดสอบ โดยมีการเก็บข้อมูลนอกตารางเวลาเรียนของนักศึกษา

จึงเรียนมาเพื่อโปรดพิจารณาอนุมัติ

ขอแสดงความนับถือ

(นางสุวนันท์ อินมณี)

เรียน อาจารย์คณะมนุษยศาสตร์

- ศาสตราจารย์ ดร. 6 พฤศจิกายน

วันที่ 22 เมษายน 2558

โดยผู้ขอเสนอการวิจัย

นิสิตปริญญาเอก สาขาวิชาภาษาอังกฤษ

คณะมนุษยศาสตร์ มหาวิทยาลัยนครสวรรค์

23 เม.ย. 58  
13/04/58

23/04/58

23 เม.ย. 58



## APPENDIX B SCORING INSTRUMENTS

### Answer Key for Sentence Completion Test

Item		Prep	Meanings
1	Most of one-parent families (consist) a mother trying to cope without a partner.	of	Correct: ประกอบด้วย
2	Students should (contribute) group discussions in order to improve their speaking skills in English.	to	Correct: รับผิดชอบต่อ / มีส่วนช่วยเหลือ Acceptable: เข้าร่วม / มีส่วนร่วม / สนับสนุน
3	These books are for reference only and are not to be (removed) the library.	from	Correct: เอาออกจาก / ย้ายออกไป Acceptable: เคลื่อนย้าย
4	His working system is (derived) certain modern management theories.	from	Correct: ได้มาจาก
5	Planners (concentrate) the structure of industries and markets and the longer-term profits.	on	Correct: มุ่งไปที่ / สนใจใน Acceptable: จดจ่อ / มีสมาธิกับ / เน้น / ให้ความสำคัญ
6	In their second year, the children become able to walk, leave the hut, and begin to (participate) the life outside.	in	Correct: มีส่วนร่วมใน Acceptable: เป็นส่วนหนึ่ง / เข้าร่วม / ใช้ชีวิต / เผชิญ / เจอ / ดำเนิน
7	The beauty of renewable energy is that it doesn't (rely) one source only, such as wind or solar, but on a whole range of different sources.	on	Correct: ไว้ใจใน / ขึ้นอยู่กับ Acceptable:พึ่งพา / อาศัย / ยึดมั่น
8	The survey will (focus) religious and social development and will be taken largely from the woman's opinions.	on	Correct: มุ่งความคิดไปที่ / มีสมาธิอยู่กับ / ให้ความสนใจกับ

Item		Prep	Meanings
			Acceptable: เน้น / ให้ความสำคัญ / เจาะจง / มุ่งเน้น / มุ่งจุดใดจุดหนึ่ง / เล็งไปที่ / สนใจกับ / พุ่ง กับ
9	Some diseases can be (attributed) stress.	to	Correct: น่าจะมาจาก Acceptable: เกิดขึ้นมาจาก
10	A case file is usually (submitted) the court after a careful police investigation.	to	Correct: เสนอ Acceptable: ส่ง
11	Animals migrating to a dry area have to (adapt) high temperatures and shortage of water.	to	Correct: ปรับให้เข้ากับ Acceptable: ปรับตัว / ปรับเปลี่ยน / ปรับสภาพ
12	Western medicine would (benefit) Eastern ideas such as yoga.	from	Correct: ได้รับประโยชน์จาก Acceptable: ให้ประโยชน์จาก
13	The doctor explained to her how hard it sometimes was for the sperm to (coincide) the eggs.	with	Correct: เกิดขึ้นพร้อมกัน (โดยบังเอิญ) Acceptable: ประจวบเหมาะ, ผสม / ปฏิสนธิ/ ร่วม / /ไปทำปฏิกิริยา/เข้าไปใน / เจาะ
14	The body can manufacture its own vitamin D if it is (exposed) sunlight.	to	Correct: เผยต่อ Acceptable: ได้รับ / กระทบ / ผึ่ง / ตาก / เปิด (เผย) / เจอกับ / สัมผัส / ถูก
15	We are surprised that an overweight lady can (transform) a slimmer, more vivacious, and prettier one.	into	Correct: เปลี่ยนเป็น / กลายเป็น Acceptable: แปลงโฉม / เปลี่ยนเป็น / เปลี่ยนรูปร่าง
16	London has a major problem in finding room to (dispose) all its rubbish.	of	Correct: เอาออกไป / ทิ้ง Acceptable: กำจัด
17	Some diseases such as colon cancer may (occur)	to	Correct: เกิดขึ้นกับ / ปรากฏ



Item		Prep	Meanings
	someone who has been consuming unhealthy foods for a long period of time.		Acceptable: บังเกิด / ก่อกำเนิด
18	Thailand is (linked) Laos because of a shared history and culture.	to	Correct: เชื่อมกับ / เชื่อมต่อ / เชื่อมเข้าด้วยกัน Acceptable: เชื่อมโยง / มีส่วนเกี่ยวข้องกับ
19	Companies usually expect that their employees should (conform) the wishes of the company.	to	Correct: เห็นพ้องกับ / เข้ากันได้กับ Acceptable: เข้าใจ / ทำตาม
20	He did not (recover) the wounds bitten by the dogs for two months.	from	Correct: ฟิ้นคืน / กลับมาปกติ Acceptable: หายดี / อาการดีขึ้น / ฟิ้นฟู/ดีขึ้น
21	At the end of every meeting, a secretary has a duty to write a report which (sums) the important issues of the meeting.	up	Correct: สรุป Acceptable: รวบรวม
Item		Prep	Meanings
22	There are some foods that you should try to (exclude) your meals if you want to stay trim and slim.	from	Correct: แยกออกไปจาก / ตัดออกจาก Acceptable: ลด / หลีกเลี่ยง/ เอาออก / ยกเว้น
23	To (compensate) slow service, the restaurant gave the customer a free drink and dessert.	for	Correct: ชดเชยสำหรับ
24	The machine must be (restored) the initial positions in order to safely operate.	to	Correct: ทำให้คืนสู่สภาพเดิม Acceptable: กลับมาเป็นเหมือนเดิม / กลับคืน/ ฟื้นฟู / ฟื้นฟูสภาพ / ซ่อมบำรุง / ปรับปรุง / ซ่อมแซม

Item		Prep	Meanings
25	The interests of a child (reside) obtaining the best possible education.	in	Correct: อาศัยอยู่ใน / มีอยู่ใน
26	Albert Einstein was (quoted) saying: "The workings of the woman's mind amaze me."	as	Correct: อ้างอิง / ถูกยกคำพูดมา Acceptable: อ้างถึง / ลอกคำพูด / กล่าวถึง
27	The government usually controls over distribution of food and levels of profits, and thus (intervene) the market.	in	Correct: ช่วยกันขวาง /แทรกแซง
28	Recently, media attention seems to (shift) video clips with violent content.	to	Correct: ย้ายไปยัง / เปลี่ยนเป็น
29	A petition was (filed) a permission to free four slaves with the St. Martin's Parish Police Jury.	for	Correct: ยื่นเอกสารเพื่อ (ทางกฎหมาย) / เสนออย่าง เป็นทางการ (เช่นตำแหน่งทางการเมือง)
30	This man has just been (released) prison through the efforts of his wife.	from	Correct: ปลดปล่อยจาก

### Sentence Scoring Tool

The Table below lists the sentences written by first-year English majors in Bachelor's degree at Naresuan University. The students were required to write sentences for 30 verbs (1 sentence for 1 verb). Please score the sentences using the ✓ mark according to the scoring scheme as follows.

0	The verb is <u>not</u> used with meaning appropriateness or is not used as a verb.
1	The verb is used with meaning appropriateness. (Correct use of verbs in terms of meaning, <i>with</i> some grammatical issues in the sentence.)
2	The verb is used with meaning appropriateness and grammatical accuracy. (Correct use of verbs in terms of meaning, <i>without</i> some grammatical issues in the sentence. Incorrect spellings and punctuation are allowed.)

#### 1st-year Set 1

Item No.	Verb	Stu. No.	Written sentences	Scores		
				0	1	2
1	consist	17	Basic English consist of grammar, writing, speaking.			
		19	A book consist of many contexts.			
		20	The vowel sound is consists of a,e,i,o,u.			
		21	A family should consist of father, mother and son.			
		22	Hydrogen consist of water.			
		23	Oil consist of water.			
		25	My pencil case consist of pens and pencils.			
		26	My daily food consist of oil, water, vitamins and Proteen.			
		27	The locomotive consist of steam locomotive, desel locomotive and electric locomotive.			
		30	Sentence consist of two parts. It is subject and predicate.			
2	contribute	39	She consist of			
		16	The rich contribute food and stuff to the poor.			
		20	He likes to contribute a lot of money to many poor people.			
3	remove	38	Milk contribute to prepare the bone.			
		1	You have to remove it from this place.			
		2	I have to remove some programs off from my computer.			
		3	Lisa remove file image from computer.			
		6	I remove a program from my laptop.			



0	The verb is <u>not</u> used with meaning appropriateness or is not used as a verb.
1	The verb is used with meaning appropriateness.
2	The verb is used with meaning appropriateness and grammatical accuracy.

Item No.	Verb	Stu. No.	Written sentences	Scores		
				0	1	2
3	remove	8	I remove the television from the table to the cupboard.			
		13	I remove some of application from my smart phone.			
		23	I remove files from my computer.			
		28	I remove the pot from rice cooker.			
		37	I remove my files from that computer.			
		38	When I don't like something, I trying to remove its from my mind.			
		40	I remove files from my computer.			
		43	John removes Jaky from the school blacklist.			
		44	My mother remove television from living room to her bedroom.			
		51	I remove computer games from my computer.			
4	derive	20	I can derive the true love from my parent.			
5	concentrate	2	They concentrate on their purpose.			
		13	Emily concentrates on her writing.			
		20	I concentrate on you.			
		41	I must concentrate on doing the test.			
6	participate	2	The Hogmany's festival participate in Scotland every year.			
		13	Hunter participates in world wild tour meeting.			
		15	My student is participate in Sport's day.			
		20	They participated in this planed.			
		29	I never participate in class.			
		30	My farther participated in neiboohood watch.			
		36	We participate in Music Band.			
7	rely	2	She cannot rely on them because they're mafia.			
		4	Human must rely very much on water.			
		6	A grade is rely on a point.			
		9	It will rely on his mind.			
		7	You should rely on with your roommate.			
		13	Hanna still rely on her parents.			
		15	This exam rely on the student.			
		19	My mother rely on me.			

0	The verb is <u>not</u> used with meaning appropriateness or is not used as a verb.
1	The verb is used with meaning appropriateness.
2	The verb is used with meaning appropriateness and grammatical accuracy.

Item No.	Verb	Stu. No.	Written sentences	Scores		
				0	1	2
7	rely	20	I rely on you.			
		21	The studies, which have effective, rely on attention in classroom.			
		23	He relies on you.			
		25	I rely on my mother.			
		28	I want someone to rely on me.			
		30	I can rely on my boyfriend because he is always take care of me.			
		32	I don't understand what you rely on.			
		34	She finds someone to rely on.			
		36	I can rely on Jimmy.			
		41	My task is rely on you.			
		42	I rely on the bed.			
		44	My father's idea rely on my mother.			
		49	Students' score rely on their attention.			
		50	She is rely on the bed.			
8	focus	1	I always focus on my work.			
		2	You shall focus on your exam if you don't, you'll fail.			
		5	I focused on the picture when I visited at the museum.			
		6	When you focus on something you will see it clearly.			
		9	You should focus on your work.			
		10	The police focus on the scare of the man.			
		11	The subject focus on writing skill.			
		13	Nolan focus on his project.			
		16	She is trying to focus on her work.			
		19	I focus on a beautiful picture.			
		20	The students should focus on their lesson.			
		21	Nowaday, Thailand students focus on a social networks.			
		22	She focus on study at this faculty.			
		25	He take a photo and focus on a flower.			
		30	To understand Phonetic, I focus on the variety of sound.			
		31	You should focus on your job.			
		34	I can't focus in the road, I have been very tired.			

## APPENDIX C EXPERTS AND VALIDATION INSTRUMENT



ที่ ๕๖ ๐๔๑๐๓/๐๖/๐๖๕๓

บัณฑิตวิทยาลัย มหาวิทยาลัยราชภัฏรำไพพรรณี  
อำเภอเมืองระยอง จังหวัดระยอง ๒๕๑๐๓

๒๖ กุมภาพันธ์ ๒๕๕๔

เรื่อง ขอความอนุเคราะห์ตรวจสอบแก้ไขเครื่องมือที่ใช้ในการวิจัย

เรียน รองศาสตราจารย์ ดร.เกรียง ศรีสมการ

สิ่งที่ส่งมาด้วย ๑. โครงร่างวิทยานิพนธ์ จำนวน ๑ ฉบับ  
๒. เครื่องมือที่ใช้ในการวิจัย จำนวน ๑ ฉบับ

ด้วย นางสาวนันท์ อินมณี รหัสประจำตัว ๕๖๐๓๒๐๓๐ นิสิตระดับปริญญาเอก สาขาวิชาภาษาอังกฤษ สังกัดบัณฑิตวิทยาลัย มหาวิทยาลัยราชภัฏรำไพพรรณี ได้รับอนุมัติให้ดำเนินการทำวิทยานิพนธ์ เรื่อง "Use of English Multi - word Verbs by Thai University Learners in Different Proficiency Levels" เพื่อเป็นส่วนหนึ่งของการศึกษาค้นคว้าหลักสูตรปริญญาศิลปศาสตรดุษฎีบัณฑิต โดยมี รองศาสตราจารย์ ดร.เกรียง ศรีสมการ เป็นอาจารย์ที่ปรึกษาวิทยานิพนธ์

ในการทำวิทยานิพนธ์เรื่องนี้ บัณฑิตวิทยาลัย มหาวิทยาลัยราชภัฏรำไพพรรณี พิจารณาแล้วเห็นว่าท่านเป็นผู้ที่มีความรู้ความเชี่ยวชาญในเนื้อหาสาระของวิทยานิพนธ์เรื่องนี้เป็นอย่างดี จึงใคร่ขอเรียนเชิญท่านเป็นผู้ทรงคุณวุฒิตรวจสอบแก้ไขเครื่องมือที่ใช้ในการวิจัยดังแนบมาพร้อมนี้ บัณฑิตวิทยาลัย มหาวิทยาลัยราชภัฏรำไพพรรณีหวังเป็นอย่างยิ่งว่าจะได้รับความอนุเคราะห์จากท่านด้วยดี และขอขอบคุณอย่างสูงมา ณ โอกาสนี้

จึงเรียนมาเพื่อโปรดพิจารณาให้ความอนุเคราะห์

ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.เอื้อภร หงษ์เจริญ)  
รองคณบดีฝ่ายวิชาการ ปฏิบัติราชการแทน  
คณบดีบัณฑิตวิทยาลัย มหาวิทยาลัยราชภัฏรำไพพรรณี

๑. งานวิชาการ บัณฑิตวิทยาลัย

โทร ๐-๕๕๓๖-๘๘๔๔-๓๖

โทรสาร ๐-๕๕๓๖-๘๘๔๔

๒. นางสาวนันท์ อินมณี

โทร ๐๘-๕๕๐๖-๘๓๕๔

นาย/พันโท.....  
ตรวจ ๑.....  
ตรวจ ๒.....  
รองคณบดีฝ่ายวิชาการ.....





ที่ ศธ ๐๕๒๗.๐๒/๐๖๓๓

บัณฑิตวิทยาลัย มหาวิทยาลัยนเรศวร  
อำเภอเมืองฯ จังหวัดพิษณุโลก ๖๕๐๐๐

๒๖ กุมภาพันธ์ ๒๕๕๘

เรื่อง ขอความอนุเคราะห์ตรวจแก้ไขเครื่องมือที่ใช้ในการวิจัย

เรียน รองศาสตราจารย์ ดร.ทรงศรี สรณสถาพร

สิ่งที่ส่งมาด้วย ๑. โครงร่างวิทยานิพนธ์ จำนวน ๑ ฉบับ  
๒. เครื่องมือที่ใช้ในการวิจัย จำนวน ๑ ฉบับ

ด้วย นางสาวนันท์ อินมณี รหัสประจำตัว ๕๖๐๓๒๐๓๐ นิสิตระดับปริญญาเอก สาขาวิชาภาษาอังกฤษ สังกัดบัณฑิตวิทยาลัย มหาวิทยาลัยนเรศวร ได้รับอนุมัติให้ดำเนินการทำวิทยานิพนธ์ เรื่อง "Use of English Multi - word Verbs by Thai University Learners in Different Proficiency Levels" เพื่อเป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาศิลปศาสตรดุษฎีบัณฑิต โดยมี รองศาสตราจารย์ ดร.ทรงศรี สรณสถาพร เป็นอาจารย์ที่ปรึกษาวิทยานิพนธ์

ในการทำวิทยานิพนธ์เรื่องนี้ บัณฑิตวิทยาลัย มหาวิทยาลัยนเรศวร พิจารณาแล้วเห็นว่าท่านเป็นผู้ที่มีความรู้ความเชี่ยวชาญในเนื้อหาสาระของวิทยานิพนธ์เรื่องนี้เป็นอย่างยิ่ง จึงใคร่ขอเรียนเชิญท่านเป็นผู้ทรงคุณวุฒิตรวจแก้ไขเครื่องมือที่ใช้ในการวิจัยดังแนบมาพร้อมนี้ บัณฑิตวิทยาลัย มหาวิทยาลัยนเรศวรหวังเป็นอย่างยิ่งว่าจะได้รับความอนุเคราะห์จากท่านด้วยดี และขอขอบคุณอย่างสูงมา ณ โอกาสนี้

จึงเรียนมาเพื่อโปรดพิจารณาให้ความอนุเคราะห์

ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.เอี่ยมพร หลินเจริญ)  
รองคณบดีฝ่ายวิชาการ ปฏิบัติราชการแทน  
คณบดีบัณฑิตวิทยาลัย มหาวิทยาลัยนเรศวร

๑. งานวิชาการ บัณฑิตวิทยาลัย

โทร ๐-๕๕๕๐-๘๘๖๘-๓๒

โทรสาร ๐-๕๕๕๐-๘๘๖๒

๒. นางสาวนันท์ อินมณี

โทร ๐๘-๔๕๐๖-๘๓๙๔

ร่าง/พิมพ์.....  
ตรวจ ๑.....  
ตรวจ ๒.....  
รองคณบดีฝ่ายวิชาการ.....



## สำเนา บันทึกข้อความ

ส่วนราชการ บัณฑิตวิทยาลัย งานวิชาการ โทร. ๘๘๓๙

ที่ ศธ ๐๕๒๗.๐๒/ว ๐๖๗๓

วันที่ ๒๖ กุมภาพันธ์ ๒๕๕๘

เรื่อง ขอความอนุเคราะห์ตรวจสอบแก้ไขเครื่องมือที่ใช้ในการวิจัย

เรียน ดร.วรรณประภา สุขสวัสดิ์

ด้วย นางสาวนันท์ อินมณี รหัสประจำตัว ๕๒๐๓๒๐๓๐ นิสิตระดับปริญญาเอก สาขาวิชาภาษาอังกฤษ สังกัดบัณฑิตวิทยาลัย มหาวิทยาลัยนเรศวร ได้รับอนุมัติให้ดำเนินการทำวิทยานิพนธ์ เรื่อง "Use of English Multi - word Verbs by Thai University Learners in Different Proficiency Levels" เพื่อเป็นส่วนหนึ่งของการศึกษาค้นคว้าตามหลักสูตรปริญญาศิลปศาสตรดุษฎีบัณฑิต โดยมี รองศาสตราจารย์ ดร.พญ. ชีตาร์ เป็นอาจารย์ที่ปรึกษาวิทยานิพนธ์

ในการทำวิทยานิพนธ์เรื่องนี้ บัณฑิตวิทยาลัย พิจารณาแล้วเห็นว่าท่านเป็นผู้ที่มีความรู้ความเชี่ยวชาญในเนื้อหาสาระของวิทยานิพนธ์เรื่องนี้เป็นอย่างยิ่ง จึงใคร่ขอเรียนเชิญท่านเป็นผู้ทรงคุณวุฒิ ตรวจสอบแก้ไขเครื่องมือที่ใช้ในการวิจัย ดังที่แนบมาพร้อมนี้ บัณฑิตวิทยาลัย หวังเป็นอย่างยิ่งว่าจะได้รับความอนุเคราะห์จากท่านด้วยดีและขอขอบคุณอย่างสูงมา ณ โอกาสนี้

จึงเรียนมาเพื่อโปรดพิจารณาให้ความอนุเคราะห์

(ผู้ช่วยศาสตราจารย์ ดร.เดียมhor หลินเจริญ)  
รองคณบดีฝ่ายวิชาการ ปฏิบัติราชการแทน  
คณบดีบัณฑิตวิทยาลัย

ร่าง/พิมพ์.....  
ตรวจ ๑.....  
ตรวจ ๒.....  
รองคณบดีฝ่ายวิชาการ.....



## สำเนา บันทึกข้อความ

ส่วนราชการ บัณฑิตวิทยาลัย งานวิชาการ โทร. ๘๘๓๓

ที่ ศธ ๐๕๒๗.๐๒/ว ๐๒๕๓

วันที่ ๒๒ กุมภาพันธ์ ๒๕๕๘

เรื่อง รอความอนุเคราะห์ตรวจแก้ไขเครื่องมือที่ใช้ในการวิจัย

เรียน ดร.ปิยา จันทร์นวล

ด้วย นางสาวนันท์ อินมณี รหัสประจำตัว ๕๒๐๓๒๐๓๐ นิสิตระดับปริญญาเอก สาขาวิชาภาษาอังกฤษ สังกัดบัณฑิตวิทยาลัย มหาวิทยาลัยนเรศวร ได้รับอนุมัติให้ดำเนินการทำวิทยานิพนธ์ เรื่อง "Use of English Multi - word Verbs by Thai University Learners in Different Proficiency Levels" เพื่อเป็นส่วนหนึ่งของการศึกษาค้นคว้าตามหลักสูตรปริญญาศิลปศาสตรดุษฎีบัณฑิต โดยมี รองศาสตราจารย์ ดร.พญู ชิตาร์ เป็นอาจารย์ที่ปรึกษาวิทยานิพนธ์

ในการทำวิทยานิพนธ์เรื่องนี้ บัณฑิตวิทยาลัย พิจารณาแล้วเห็นว่าท่านเป็นผู้ที่มีความรู้ความเชี่ยวชาญในเนื้อหาสาระของวิทยานิพนธ์เรื่องนี้เป็นอย่างยิ่ง จึงใคร่ขอเรียนเชิญท่านเป็นผู้ทรงคุณวุฒิตรวจแก้ไขเครื่องมือที่ใช้ในการวิจัย ดังที่แนบมาพร้อมนี้ บัณฑิตวิทยาลัย หวังเป็นอย่างยิ่งว่าจะได้รับความอนุเคราะห์จากท่านด้วยดีและขอขอบคุณอย่างสูงมา ณ โอกาสนี้

จึงเรียนมาเพื่อโปรดพิจารณาให้ความอนุเคราะห์

(ผู้ช่วยศาสตราจารย์ ดร.เอี่ยมพร หลินเจริญ)  
รองคณบดีฝ่ายวิชาการ ปฏิบัติราชการแทน  
คณบดีบัณฑิตวิทยาลัย

ร่าง/พิมพ์.....  
ตรวจ ๑.....  
ตรวจ ๒.....  
รองคณบดีฝ่ายวิชาการ.....







สํานัก  
GRADUATE SCHOOL  
NARESUAN UNIVERSITY

The Graduate School  
Naresuan University  
Phitsanulok, 65000  
Thailand

February 26, 2015

Subject: Request for questionnaires verification

RE # ๗๖.0527.02/๖ 0518

Dear Mr. Daniel Sackin

Since Mrs. Suwanan Inmanee, Identify number 52032030, the graduate student of the Doctoral Degree in English of the Graduate School, Naresuan University, has conducted the thesis title is "Use of English Multi - word Verbs by Thai University Learners in Different Proficiency Levels" Therefore, I am pleased to invite you as the expertise to verify her questionnaires.

Thank you for your assistance.

Yours sincerely,

(Assistant Professor Dr. Aumporn Lincharoen)

Associate Dean for Academic Affairs

Graduate School of Naresuan University

Graduate School, Naresuan University, Phitsanulok 65000, THAILAND. Tel: (66-55) 958839 Fax: (66-55) 965826  
Mrs. Suwanan Inmanee Tel: (66-68)4536.8394

ทำหนังสือ...  
วันที่...  
ที่...  
เรื่อง...

## Test Validation Instrument

Test writer: Suwanan Inmanee (Tel: 084-5068394)

### Description of the Test

The purpose of the test is to measure the use of multi-word verbs in English-major students in Bachelor's degree. For this study, multi-word verbs refer to the verbs selected from Coxhead's academic word list which need to be followed by certain prepositions. These verbs are:



consist of	contribute to	remove from	derive from
concentrate on	participate in	rely on	focus on
attribute to	submit to	adapt to	benefit from
coincide with	expose to	transform into	dispose of
occur to	link to	conform to	recover from
sum up	exclude from	compensate for	restore to
reside in	quote as	intervene in	shift to
file for	release from		

The test consists of two parts: the sentence building task and the sentence completion task.

Part one is the sentence building task which consists of the above thirty verb items listed without prepositions given. Students are required to write one sentence for each verb item to reveal (1) the preposition which they may use with the verb, (2) the semantic appropriateness of the verb they use with their written surrounding context, and (3) the grammar accuracy.

As seen in the test, to avoid giving students a clue that these verbs need to be followed by a preposition, the word *multi-word verbs* and *prepositions* do not appear in the title and the directions of the test.



### Part I: Sentence Building Test

**Directions:** Write a complete sentence using the given verb.

คำสั่ง: จงเขียนประโยคที่สมบูรณ์จากคำกริยาที่ให้มาในแต่ละข้อ 1 ประโยค

	Verb	Sentence
1	consist	
2	contribute	

### Expert's evaluations for Part 1: the sentence building task

From the background information of the test construction, please evaluate the validity of the test in this part by answering the questions below.

1. Are the directions of the test clearly written and easy to follow?

a. yes      b. no      c. not sure

Comments \_\_\_\_\_

2. Do the directions help elicit the responses for the (underlined) purposes of the test?

a. yes      b. no      c. not sure

Comments \_\_\_\_\_

3. Is the test format appropriate?

a. yes      b. no      c. not sure

Comments \_\_\_\_\_

Other recommendations

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**Part two** is the sentence completion task which consists of the same thirty verb items. After the first blank, the target verb item is in a parenthesis. The verbs provided are grammatically correct, except for the prepositions are missing in order to reveal students' collocational knowledge (verb + preposition collocations) of the given verbs without taking other grammatical knowledge into considerations. Students are not told that those verbs need a preposition, but are hinted that they need any other word in order to provide a correct answer. For the other blank, students are required to define the words they fill in in the first blank. This part of the test is added to check if the correct responses for the first blank are from guessing or not, and it is expected to provide additional evidence for an analysis of errors in multi-word verbs caused by L1 translation which will be also conducted in the current study.

#### Part II: Sentence Completion Test

**Directions:** The given verbs in brackets are grammatically correct, but something in sentences is missing. Use the given verb and other word(s) you feel are necessary to complete the sentences in the first blank. Then, define or give the meaning of the word(s) you filled in the Thai language in the second blank.

**คำสั่ง:** คำกริยาในวงเล็บถูกต้องตามหลักไวยากรณ์แล้ว แต่ยังไม่ถูกต้องที่สุด จงใช้คำกริยาที่ให้ไว้ในวงเล็บและคำอื่นๆ ที่จำเป็นมาเติมลงในช่องว่างด้านหน้าเพื่อทำให้นประโยคถูกต้องตามหลักไวยากรณ์ที่สุด และแปลความหมายของคำกริยาที่เติมลงไปนั้นลงในช่องว่างถัดมาเป็นภาษาไทย

1. *Use:* Most of one-parent families \_\_\_\_\_ (consist) a mother trying to cope without a partner.

*Meaning:* หมายถึง \_\_\_\_\_

**Expert's evaluations for Part 2: the sentence completion task**

1. Are the directions of the test clearly written and easy to follow?
a. yes                      b. no                      c. not sure
Comments _____
_____
_____
2. Do the directions help elicit the responses for the (underlined) purpose of the test?
a. yes                      b. no                      c. not sure
Comments _____
_____
_____
3. Is the test format appropriate?
a. yes                      b. no                      c. not sure
Comments _____
_____
_____
Other recommendations _____
_____
_____
_____

Other recommendations

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ (Name of the Evaluator)



## APPENDIX D OTHER DOCUMENTS



ที่ ศธ ๐๕๓๖ / ๖๒๖๙๕

มหาวิทยาลัยราชภัฏกำแพงเพชร  
อ.เมือง จ.กำแพงเพชร ๖๒๐๐๐

๒๙ มิถุนายน ๒๕๕๘

เรื่อง ตอบรับการส่งบทความวิจัยใน สัปดาห์ : วารสารมนุษยศาสตร์และสังคมศาสตร์

เรียน คุณสุวรินทร์ อินมณี

ตามที่ท่านได้ส่งบทความ เรื่อง "การศึกษาการใช้คำพหูพจน์ภาษาอังกฤษในกลุ่มคำศัพท์ทางวิชาการ โดยใช้คลังข้อมูลคำ" ซึ่งได้ดำเนินการแก้ไขตามที่ผู้ทรงคุณวุฒิแนะนำเป็นที่ยอมรับเรียบร้อยแล้ว บัดนี้ คณะผู้จัดทำวารสารจะนำบทความดังกล่าวเผยแพร่ใน สัปดาห์ : วารสารมนุษยศาสตร์และสังคมศาสตร์ ปีที่ ๒๒ ฉบับที่ ๑ เดือน มกราคม-เมษายน ๒๕๕๙ ต่อไป

จึงเรียนมาเพื่อโปรดทราบ และขอขอบคุณเป็นอย่างยิ่งที่ท่านส่งบทความมานำลงวารสารของมหาวิทยาลัยฯ

ขอแสดงความนับถือ

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รองอธิการบดี ปฏิบัติราชการแทน  
อธิการบดีมหาวิทยาลัยราชภัฏกำแพงเพชร

สถาบันวิจัยและพัฒนา

มหาวิทยาลัยราชภัฏกำแพงเพชร

โทร. ๐ ๕๕๗๐ ๖๕๕๕ ต่อ ๑๗๖๐, ๐ ๕๕๗๐ ๑๘๗๔

โทรสาร. ๐ ๕๕๗๐ ๖๕๑๘

## THE PRELIMINARY STUDY

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### A Corpus-Based Study on the Use of English Multi-word Verbs in the Academic Word List

การศึกษาการใช้คำพหูพริยาภาษาอังกฤษ  
ในกลุ่มคำศัพท์ทางวิชาการ โดยใช้คลังข้อมูลคำ

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#### บทคัดย่อ

กลุ่มคำศัพท์ทางวิชาการที่เสนอโดย Coxhead (2000) แม้มีการใช้อย่างแพร่หลายในการเรียนการสอนภาษาอังกฤษก็ยังมีจุดอ่อนในการนำเสนอ โดยเฉพาะอย่างยิ่งการมองข้ามความสำคัญของคำปรากฏร่วม (collocations) ซึ่งเป็นส่วนประกอบที่สำคัญของงานเขียนที่ใช้ในสถานการณ์จริง งานวิจัยชิ้นนี้มุ่งศึกษาคำปรากฏร่วมของคำกริยาคำนุพพบท หรือเรียกโดยรวมว่า คำพหูพริยารวมถึงรูปแบบการใช้คำกริยาดังกล่าวในประโยค ในการดึงชุดคำกริยาดังกล่าวจากกลุ่มคำศัพท์ทางวิชาการของ Coxhead ผู้วิจัยได้พจนานุกรมคำปรากฏร่วมและคลังข้อมูลคำ (corpus) ร่วมกับการหาค่า T-score ซึ่งเป็นตัวชี้วัดความถี่ที่แน่นอนของคำปรากฏร่วม ผลการวิเคราะห์พบคำพหูพริยา 32 คำ แบ่งเป็นคำพพบทกริยา 30 คำ คำกริยาวลี 1 คำ ได้แก่ sum up และจำแนกไม่ได้ 1 คำ คือ dispose of นอกจากนี้ จากการศึกษารูปแบบการใช้คำพหูพริยาจากคลังข้อมูลคำพบว่า คำกริยากลุ่มนี้มีแนวโน้มที่จะปรากฏในรูปแบบกรรตุวาจก (active voice) มากกว่ากรรมวาจก (passive voice)

คำสำคัญ : คำปรากฏร่วม / คลังข้อมูลคำ / คำพหูพริยา / กริยาวลี

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### ABSTRACT

Despite being widely used in English language education, Coxhead's academic word list still lacks important dimensions on collocations which largely account for authentic English texts. This study aimed at adding collocational knowledge of verbs in the list by exploring verb + preposition collocations, or in the other comparable term, multi-word verbs (Henceforth: MWVs). A collocational dictionary, corpus use, and T-score calculations were combined to extract the MWVs. With the procedures involved, thirty-two multi-word verbs were extracted. While thirty of them are prepositional verbs, one of them, *sum up*, is a phrasal verb, and one verb, *dispose of*, cannot be categorized. The results also showed that academic MWVs in this study were less likely to be used as the passive voice when compared with the active voice.

Keywords : Collocations / Corpus / Multi-word Verbs / Phrasal Verbs

### Statement of the Problem

With the rise of computational research technology in 1980s, evidence from authentic language examples gathered from a wide variety of English texts known as corpora (*pl* of a corpus) has highlighted two important areas which have fostered the development of vocabulary study and the field of English language teaching as a whole. One area is the discovery of collocations, and the other is the development of vocabulary lists.

Based on corpus data, more than a few linguists (e.g. Hunston, 2002; Lewis, 1997; Nation, 2001; Nattineer & DeCarrico, 1992; Sinclair, 1991; Wray, 2000) have increasingly questioned Chomskyan views of language description that usually see language systems or grammars as a milestone of language competence. Instead of seeing grammatical structures as language frames for individual words to fill in, corpus evidence shows that vocabulary is central to language patterns as words tend to occur with preferred syntactic sequences (Sinclair, 1991). Based on Sinclair's (1991) discoveries, individual words are not chosen to form a sentence in a random manner. In fact, the chances of words to be mentioned together are "greater than random frequency" (Lewis, 1997, p 44). For example, the verb



*commit* does not occur with every type of actions, but it occurs with an illegal or immoral action such as *commit a crime*, *commit a murder*, and *commit suicide*. Therefore, unlike free combinations, collocations' constituents cannot be easily substituted by other words.

The fact that a relatively small number of words account for authentic written and spoken English (Nation, 2001) is another crucial discovery that corpus studies provided for the field of English language teaching as a whole. Due to this fact, researchers have elicited lists of word families which are significantly used in English in different contexts from corpora. Particularly, three major lists have been subsequently used by numerous researchers, dictionary developers, as well as coursebook writers. These lists include West's (1953) General Service List of English Words (GSL), Xue and Nation's (1984) University Word List (UWL), and Coxhead's (2000) Academic Word List (AWL).

As discussed above, collocations and the initiations of different word lists are the important offspring of corpus use. However, despite the significant contributions to the field of vocabulary study and English language teaching, these two areas have been separately presented. The important instances are the word lists as mentioned earlier. They were not initiated with the realization that collocations greatly account for 70% of authentic spoken and written English (Hill, 2000). Moreover, while these word lists contain words ranked by frequency of occurrences in a corpus, other specifications are not provided, for example, parts of speech and patterns in which these words are likely to occur.

Due to these crucial limitations of pioneer word listings, the current study attempted to expand Coxhead's AWL, one of the most accepted word lists, with a part of collocational knowledge by means of corpus-based research. Criticizing Xue and Nation's (1984) UWL for its lacks of coverage of words due to a small size of corpora used, Coxhead proposed the academic word list (AWL) in the year 2000. The AWL consists of 570 academic word families developed from a corpus of 3.5 million words of written academic texts compiled from academic articles, university coursebooks, laboratory manuals, book chapters as well as other academic corpora from various academic fields.

Meanwhile, verb + preposition collocations of Coxhead's AWL will be the target type of collocations to be extracted due to two important reasons.

1. Verb + preposition collocations have been reported to be one of the most problematic language features to all learners of English as a foreign language (Henceforth: EFL) (Bhumadhana, 2010; Chen, 2002; Hama, 2010; Hong et al., 2011; Li, 2005; Liu, 1999; Miyakoshi, 2009; Nesselhauf, 2003; Phoochareonsil, 2011; Phoochareonsil, 2013). Especially for Thai students, they usually omit prepositions due to the lack of use of the same features in Thai language. As Phoochareonsil (2013) exemplified, Thai students often omitted the preposition after verb + preposition collocations such as omitting *to* after *listen* and omitting *of* after *take care*.
2. Coxhead's AWL consists of the greatest number of verbs (389 verbs [Bhumadhana, 2010]) which account for approximately 68 percent of the list.

However, since characteristics of collocations are differently conceived by different researchers, to avoid this theoretical inconsistency, the current study investigated and analyzed "verb + preposition collocations" in Coxhead's AWL using the classifications and definitions of "multi-word verbs" (MWVs) proposed by Biber, Conrad, and Leech (2002) and Cowan (2010). Like verb + preposition collocations, MWVs are composed of a verb and a certain preposition. According to Biber et al. (2002) and Cowan (2010), three major classes of MWVs include: (1) phrasal verbs, (2) prepositional verbs, and (3) phrasal-prepositional verbs. Nevertheless, since phrasal-prepositional verbs have a very thin chance to appear in academic written English (Biber et al., 2002), they were not mentioned and investigated in the current study. Hence, phrasal verbs and prepositional verbs are two types of MWVs which were focused in the current study.

#### Research Objectives

This study was administered in order to find MWVs out of word combinations in Coxhead's AWL. It also explored the voicing patterns in which these MWVs recur. The results from this study were expected to provide an expansion of collocational knowledge which is rarely offered by vocabulary lists. These include the preposition collocates of verbs. Even though this kind of knowledge may be provided by typical English dictionaries, most of them usually generalize verb + preposition collocations as phrasal verbs, but overlook the existence of prepositional verbs. Additionally, although dictionaries provide



variations of verb forms including regular/irregular verb forms in different tenses and aspects, as well as examples of use, their recurring verb forms and uses in authentic written English are not well emphasized. These limitations are particularly important since it is a central concept of collocations that words tend to occur with preferred syntactic sequences or structures (Sinclair, 1991). In response to this, two research questions helped guide the current study as follows.

1. Of Coxhead's AWL, which multi-word verbs are considered phrasal verbs, which ones are considered prepositional verbs based on dictionary consultation, manual corpus analysis, and a collocation formula?
2. In what voicing patterns do these phrasal verbs and prepositional verbs in Coxhead's AWL recur?

#### Theoretical Framework

According to well-known English grammar manuals including *Student Grammar of Spoken and Written English* written by Biber et al. (2002) and *the Teacher's Grammar of English* written by Cowan (2010), the two classes of multi-word verbs, phrasal verbs and prepositional verbs, have the same construction with a verb followed by a particle or preposition. However, there are three distinctive features which characterize these two types of verbs, that is, idiomatic meanings, particle movement, and adverb insertion.

To begin with, most phrasal verbs have idiomatic meanings, whereas prepositional verbs can be literally translated. That is, the meanings of the phrasal verbs' parts (either a verb or a preposition) cannot predict the meaning of the whole. Especially, as a part of phrasal verbs, the preposition does not have a literal meaning which usually signifies places and directions. Examples include *set up*, *hand in*, and *give up*. The original meanings of *up* in *set up* and *in* in *hand in* is not retrievable because as a whole, they mean *to begin or to construct* and *to return or submit* respectively. Meanwhile, the original meanings of both *give* and *up* in *give up* are not conveyed since *give up* is considered as another combination of words which altogether means "to surrender". On the other hand, prepositional verbs such as *ask for* and *listen to* have literal meanings, not at all idiomatic.



Secondly, even though both types of MWVs can appear in this same pattern *NP + V + prep + NP* (or a MWV followed by one direct object), the particle of a transitive phrasal verb can be moved after a direct object (DO) if that DO is a pronoun or a short phrase. Examples include *look it up*, *take your shows off*, and *pick a few up*. Prepositional verbs, on the other hand, do not allow particle movement after a DO. For instance, *apply for the job* and *depend on him* are correct, but *apply the job for* and *depend him on* are incorrect. However, in case of two objects (a direct object and an indirect object), a preposition can be separated from a verb by a DO, such as *remind me of it* and *said something to me*.

Finally, phrasal verbs cannot be separated by an adverb, but an adverb insertion is allowed in prepositional verbs. For example, *depend largely on him* and *look exactly like her mom* are proper since they are prepositional verbs, but for phrasal verbs, *shut suddenly up* and *get early up* are improper phrases.

The table below summarizes distinctive characteristics which differentiate prepositional verbs and phrasal verbs. This table was used in the study for classifying MWVs into phrasal verbs and prepositional verbs.

Table 1: Distinctive Characteristics of Phrasal Verbs and Prepositional Verbs

Types of MWVs	Characteristics of MWVs		
	Idiomatic meaning	Particle movement after one DO ( <i>NP + V + prep + NP</i> )	Adverb insertion
1 Phrasal verbs	+	+	-
2 Prepositional verbs	-	-	+

Additionally, when compared by the frequency of occurrences in different text types, according to Biber et al. (2002), prepositional verbs are the most frequently used multi-word verbs in English conversations, fictions, news, and academic texts, whereas phrasal verbs come the second with far less frequent occurrence. Especially, the proportion of prepositional verbs in academic English exceeds the proportion of other types of MWVs. Some prepositional verbs commonly appear as past participles in the passive voice (Biber et al., 2006) such as *be accused of* and *be based on* due to the likeliness of some academic verbs to recur in the passive voice, usually without a *by*-phrase (Coxhead & Byrd, 2007).

### Research Methodology

The current study is corpus-based research which employs a top-down research approach as the basis. This approach attempts to elaborate existing language features via corpus evidence as it studies how those features occur in a corpus (Conrad, 2000). For this study, the existing language features were verbs in Coxhead's (2000) academic word list. There were three stages involved in the extraction of multi-word verbs: dictionary consultation, concordancing and corpus analysis, and T-score calculation. Then, two additional stages were conducted to answer two research questions: the identification of phrasal verbs and prepositional verbs and the identification of voicing patterns.

1. *Dictionary consultation* – The Oxford Collocations Dictionary software (2009) for Windows, which includes the information from both American English and British English, was used. By adding keywords in the search box, if the searched words appeared with a preposition and were listed as *phr verb* (phrasal verb), which, in fact, is meant to be any verb phrases, those words were selected in the first place.

2. *Concordancing and corpus analysis* were conducted to extract MWVs including phrasal verbs and prepositional verbs from Coxhead's AWL. Developed by Tom Cobb in 1997, the Compleat Lextutor version 6.5 was the concordancing program which the study used. The program is freely available online at website [http://www.lexutor.ca/concordancers/concord\\_e.html](http://www.lexutor.ca/concordancers/concord_e.html) and has been recently updated in July, 2014. Among different corpora provided by the program, Brown corpus and BNC (Sampler version) written corpus, which consist of 2,000,000 words in total, were selected as the sources of data.

As the processes of corpus analysis, tagging and parsing were done manually due to two purposes of grammatical analysis: (1) to differentiate verbs from other parts of speech when a keyword had more than one part of speech and (2) to reveal the voicing patterns in which the multi-word verbs recur. Although manual tagging and parsing are time-consuming, the outputs are usually more accurate than an automatic approach (Hunston, 2002). Despite manual corpus tagging and parsing, the researcher fostered the reliability of the results by means of intra-coder data analysis, which involves two occasions of analyses of the same set of data by one researcher (the first author). The first analysis and the final analysis were conducted with a two-week interval.



3. T-score calculations were conducted to extract the final list of MWVs and to reveal voicing patterns in which these verbs recurred. Developed by Church, Gale, Hanks, and Hindle (1991, cited in Stubbs, 1995), the T-score formula was used as “a measure of the absolute frequency of collocations” (Stubbs, 1995, p. 10). This formula is appropriate for extracting grammatical collocations such as verb + preposition collocations.

T-score formula: 
$$T = [f(n,c) - f(n)f(c)/N] / \sqrt{f(n)f(c)}$$

The values represent different things as follows: *n* as *node* or the *keyword* (verb), *c* as *collocate* (preposition), *N* as *the size or the number of words stored in a corpus*. Meanwhile,  $f(n,c)$  is the joint frequency of node and collocate, and  $f(n)$  and  $f(c)$  are their independent frequencies. The following criteria based on Stubbs (1995) were used in selecting the collocations:

(1) All cases of which their joint frequency equals 1 or lower were discarded because being a collocation, a node and a collocate must appear together with a frequency, at least larger than a single co-occurrence.

(2) All cases where *T* is less than 2 were discarded. This number confirms a strong association between a node and a collocate in a corpus and, hence, is an indicator of being a collocation.

After all, the MWVs extracted by the three procedures above were further analyzed and classified into phrasal verbs and prepositional verbs based on three criteria guided by Biber et al. (2002), Cowan (2010), and *Longman Dictionary of Contemporary English of Advanced Learners 2009 edition*.

## Conclusion and Discussion

Research question 1: Of Coxhead's AWL, which multi-word verbs are considered phrasal verbs, which ones are considered prepositional verbs based on dictionary consultation, manual corpus analysis, and a collocation formula?

The initial list of multi-word verbs from Coxhead's AWL obtained from the consultation of *Oxford Collocations Dictionary software (2009) for Windows* includes forty-six verb phrases. These verbs were then concordanced via the Compleat Lextutor version 6.5 to obtain frequency information for T-score calculation. The table below reports the  $f(n,c)$  values and the T-score values in rank order.



Table 2 the Joint Frequency of a Verb and a Preposition and the T-score

Rank order	Verbs	f <sub>(0,0)</sub>	T	Rank order	Verbs	f <sub>(0,0)</sub>	T
1	consist of	173	13.12	24	restore to	16	3.95
2	contribute to	143	11.92	25	reside in	15	3.85
3	remove from	81	8.93	26	quote as	14	3.65
4	derive from	78	8.80	27	intervene in	12	3.44
5	concentrate on	76	8.68	28	shift to	11	3.25
6	participate in	63	7.91	29	file for	10	3.08
7	rely on	52	7.19	30	release from	8	2.75
8	focus on	42	6.46	31	submit for	6	2.37
9	attribute to	36	5.93	32	shift into	5	2.20
10	submit to	36	5.97	33	conflict with	4	1.98
11	adapt to	34	5.80	34	suspend from	4	1.92
12	benefit from	34	5.80	35	channel into	3	1.73
13	coincide with	32	5.64	36	offset against	3	1.73
14	expose to	32	5.61	37	deviate from	3	1.72
15	transform into	28	5.27	38	volunteer for	3	1.70
16	dispose of	28	5.27	39	abandon to	3	1.60
17	occur to	28	5.16	40	survive on	3	1.47
18	link to	25	4.95	41	impact on	1	0.99
19	conform to	21	4.57	42	discriminate against	1	0.99
20	recover from	19	4.32	43	channel to	1	0.97
21	sum up	18	4.24	44	register at	0	0.44
22	exclude from	18	4.20	45	trigger of	0	0.12
23	compensate for	17	4.11	46	prospect for	0	0.00

Based on Stubbs' (1995) first criterion, six cases of which their joint frequency equals 1 or lower were discarded. These include: *impact on*, *discriminate against*, *channel to*, *register at*, *trigger of*, and *prospect for*. Meanwhile, the other eight cases were discarded due to the second criteria, discarding all cases of which the T-score values are less than 2. These were: *conflict with*, *suspend from*, *channel to*, *offset against*, *deviate from*, *volunteer for*, *abandon to*, and *survive on*. Thus, despite being mentioned in the collocation dictionary fourteen verb phrases were not qualified collocations based the two criteria.

Thirty-two multi-word verbs extracted were further analyzed and classified into phrasal verbs and prepositional verbs based on Biber et al. (2002) and Cowan (2010). The results showed that only *sum up* was found to meet three criteria, while *dispose of* meets two criteria. This is consistent to Biber et al.'s (2002) report in that prepositional verbs have far more chances to appear in all text types, especially in academic texts. Table 3 displays how *sum up* and *dispose of* meet the three criteria of being phrasal verbs.

Table 3: Phrasal Verbs Found in Coxhead's AWL

Phrasal verbs	Characteristics of phrasal verbs		
	Idiomatic meaning	Particle movement after one DO	Adverb insertion
	(+)	(+)	(-)
1 Sum up	+	+	-
2 Dispose of	+	+	+

As illustrated in Table 3, *sum up* is the only one MWV in Coxhead's academic word list which meets all the three criteria. That is, (1) *sum up* has an idiomatic meaning since *up* does not actually tell the direction, (2) it allows particle movement after one direct object such as *sum it up*, and (3) it does not allow an adverb insertion. However, *dispose of*, despite having an idiomatic meaning like a phrasal verb, allows an adverb insertion just like a prepositional verb. While the original meaning based on LDCE (p. 488) of *dispose* refers to *to arrange them or put in their places*, the combination *dispose of* provides various meanings different from the original's including: *to get rid of something*, *to sell something*, *to deal with a problem or a question successfully*, and *to defeat an opponent*. One of these examples includes: *The Secretary may dispose of water and byproducts resulting from his operation*. In this context, *dispose of* means *to get rid of something*. However, based on corpus data, this verb allows an adverb insertion like an ordinary prepositional verb, as shown in one language sample from the corpus data: *the Government's most embarrassing problem is how to dispose inconspicuously of 100 million tons of surplus fam*. This kind of use, despite appearing once in the 2-million-word Brown and BNC written corpus, was also found in the other corpus which was not used in the study, such as *to dispose safely of* and *to dispose subsequently of* in *BYU-BNC: British National Corpus*. As a result, based on the three criteria proposed by Biber et al. (2002) and Cowan (2010), only *sum-up* can be categorized as a phrasal verb, whereas *dispose of* cannot be categorized.

Research question 2: In what voicing patterns do these phrasal verbs and prepositional verbs in Coxhead's AWL recur?

After T-score calculations, the rest thirty-two MWVs were further analyzed for their recurring voicing patterns. As academic English verbs are likely



to be used as the passive voice (Coxhead & Byrd, 2007), the results will be presented with the focus on this characteristic as a priority.

The findings showed that six MWVs including *link to*, *expose to*, *transform into*, *exclude from*, *attribute to*, and *derive from* were reported to be used more frequently in the passive voice than in the active voice. As illustrated in Table 4, the proportions of the active voice per the passive voice occurring with the six MWVs compared by percentages were: 24:76, 25:75, 36:64, 44:56, 39:61, and 45:55 respectively. Meanwhile, the proportion of two voicing patterns of *release from* was 50:50 percent.

Table 4: The Proportions of the Active Voice per the Passive Voice per MWVs

No.	MWVs	f (%)	Active		Passive		No.	MWVs	f (%)	Active		Passive	
			f	%	f	%				f	%	f	%
1	Link to	25	6	24	19	76	17	File for	10	9	90	1	10
2	Expose to	32	8	25	24	75	18	Conform to	21	19	90	2	10
3	Transform into	25	10	36	15	64	19	Recover from	19	18	95	1	5
4	Exclude from	18	8	44	10	56	20	Rely on	52	50	96	2	4
5	Attribute to	36	14	39	22	61	21	Consist of	173	172	99	1	1
6	Derive from	73	35	45	43	55	22	Contribute to	143	143	100	0	0
7	Release from	8	4	50	4	50	23	concentrate on	76	76	100	0	0
8	Adapt to	34	19	56	15	44	24	participate in	63	63	100	0	0
9	Remove from	81	45	59	33	41	25	benefit from	34	34	100	0	0
10	Dispose of	28	15	64	10	36	26	coincide with	32	32	100	0	0
11	Quote as	14	10	71	4	29	27	Occur to	28	28	100	0	0
12	Restore to	16	12	75	4	25	28	Compensate for	17	17	100	0	0
13	Submit to	36	23	75	8	22	29	Reside in	15	15	100	0	0
14	Sum up	18	14	78	4	22	30	intervene in	12	12	100	0	0
15	Focus on	42	34	81	8	19	31	shift to	11	11	100	0	0
16	Submit for	7	6	86	1	14	32	Shift into	5	5	100	0	0

Despite being regularly used as the passive voice, these verbs could be also used as the active voice, but usually in a pattern of prepositional verbs in the case of two objects separated by a preposition (Biber et al., 2002) as exemplified below.

The active voice	The passive voice
The gangplank that <i>linked</i> the slipway to the boat...	The name of Brazenose, which <i>was linked</i> to the "brazen head" and...
I consider it to be my job to <i>expose</i> the public to what is being written today.	But millions of human beings <i>were exposed</i> to Lueger's propaganda...



In spite of being found more frequently as the active voice, there were other six MWVs which could be used with the same patterns as these six verbs. That is, when they were found frequently in the passive voice, their active voice pattern needs two objects with a preposition in the middle. These verbs are: *adapt to*, *remove from*, *quote as*, *restore to*, *submit for*, and *file for*.

Meanwhile, the rest nineteen verbs including *conform to*, *recover from*, *rely on*, *consist of*, *contribute to*, *concentrate on*, *participate in*, *benefit from*, *coincide with*, *occur to*, *compensate for*, *reside in*, *intervene in*, *shift to*, *shift into*, *submit to*, *sum up*, *focus on*, and *dispose of* were found to be used as the active voice with one direct object. Eleven of them were 100 percent occurring in the active voice including *contribute to*, *concentrate on*, *participate in*, *benefit from*, *coincide with*, *occur to*, *compensate for*, *reside in*, *intervene in*, *shift to*, and *shift into*. Some of the language samples of these MWVs provided by Brown and BNC written corpus are demonstrated as the following.

- a. The beer's name was also changed to *conform to* its traditional image.
- b. The current government's reluctance to *intervene in* the workings of...
- c. It wouldn't *occur to* the participants for one second that...

The results illustrates that the MWVs in Coxhead's AWL are more likely to be used as the active voice. A number of them only occur in the active voice. Meanwhile, some of them are used as the passive voice or have an alternative pattern to be written in the passive voice, and these verbs are prepositional verbs. This finding is somewhat consistent with Biber et al. (2002) and Coxhead and Byrd (2007) that some (not most) academic verbs and some prepositional verbs frequently appear as past participles in the passive voice, usually without a by-phrase.

To conclude, based on a collocation dictionary, corpus data, and T-score calculations, thirty-two MWVs were extracted from Coxhead's (2000) AWL. Of this number, only one is a qualified phrasal verb based on a theoretical framework guided by Biber et al. (2002) and Cowan (2010), whereas the other thirty are prepositional verbs. The results also show that words and patterns correlated as certain verbs only recur with either the active voice or the passive voice. They were not freely composed with random patterns. This provides evidence to support what Sinclair (1991) claimed before, that vocabulary is central to language patterns as words tend to occur with preferred syntactic sequences.

### Implications of the Study

This study has provided a further insight into collocational knowledge and language descriptions of multi-word verbs in Coxhead's (2000) AWL. Not only does the study reveal the prepositions which are used with the verbs in the list and the patterns of use, it also provides further considerations on classifications of multi-word verbs by attempting to test theoretical perspectives proposed by Biber et al. (2002) and Cowan (2010). Especially, as phrasal verbs are dominantly mentioned in commercial English instructional materials which the authors have been used, the finding that there are more prepositional verbs than phrasal verbs in usual English texts leads to two important questions. Are Thai learners appropriately exposed to these two types of multiword verbs? If not, should this knowledge be recognized more by English language education stakeholders?

Additionally, the result that the verb *dispose of* cannot be categorized based on the classification shows that using the theoretical perspectives proposed by Biber et al.'s (2002) and Cowan's (2010) may be limited. Due to this limitation, further research may test other related theories alongside in order to perfectly answer the research questions and find the best framework for classifying multi-word verbs.

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