# Thai Learners' Acquisition of L2 Collocations: An Interlanguage Perspective

1

Kietnawin Sridhanyarat <u>kietnawins@gmail.com</u> Faculty of Archaeology, Silpakorn University, Thailand

#### **ABSTRACT**

The emergence of second language (L2) collocation studies has grabbed the attention of a number of scholars. However, few empirical studies from an interlanguage perspective have addressed the issue of how learners acquire L2 collocations. The current study investigated what grammatical and lexical collocations posed difficulty to Thai EFL learners and whether learners of different proficiency levels exhibited the same order of acquisition. The study also attempted to explore whether task differences significantly affected the learners' acquisition process. The participants were organized into a high proficiency group (N = 45) and a low proficiency group (N = 45). Receptive and productive tasks were devised to gauge the learners' collocation knowledge. In the receptive task, the learners were encouraged to identify errors. In the productive task, they were asked to write a correct collocate required for a certain context. The results illustrated that almost all target collocations were difficult for both advanced and basic groups. Only verb-preposition collocations did not pose any considerable difficulty to the advanced participants. In terms of acquisition order, there were palpable differences between the two groups. It was also discovered that the different tasks administered exerted a profound effect on the learners' order of collocation acquisition. The key findings are discussed in light of first language (L1) transfer, transfer of prior knowledge of a particular congruent collocation, familiarity with receptive tasks, and effects of both receptive and productive tasks. The findings suggest that teachers can teach students a group of words rather than individual words by utilizing meaningful materials oriented toward specific difficult collocations or receptive-productive integration tasks. Teachers can also encourage their students to practice using frequency-based collocations and dictionaries in English classes.

**Keywords:** interlanguage; L2 collocations; order of collocation acquisition; receptive and productive tasks; variability in L2 collocations

# **INTRODUCTION**

Recently, there has been a growing interest in research on L2 collocations among learners with diverse language backgrounds (e.g., Boonyasaquan, 2006; Phoocharoensil, 2011; Wray, 2002; Yamashita & Jiang, 2010). It is generally acknowledged that collocation knowledge is a central means of communication (Schmitt, 2010; Wray, 2002; Zhang, 2017), and hence it is of paramount importance to L2 learners striving for a high level of proficiency (Lewis, 2000; Nesselhauf, 2003; Zhang, 2017). Knowledge of collocations also helps to identify a L2 learner as a successful, proficient writer in academic writing (Coxhead & Byrd, 2007; Hong, Hua, & Mengyu, 2017; Peters & Pauwels, 2015). Nevertheless, the accurate use of collocations seems to be a great hindrance for both ESL (Fan, 2009; Wray, 2000; Yamashita & Jiang, 2010) and Thai EFL learners (Boonyasaquan, 2006; Mongkolchai, 2008; Phoocharoensil, 2011). Within the Thai EFL context, few studies (Phoocharoensil, 2011; Sumonsriworakun & Pongpairoj, 2017) have addressed how learners acquire collocations

whilst considering interlanguage, as established by Selinker (1972). This line of research has mostly focused on identifying collocation errors rather than exploring whether a particular learner can fully acquire L2 collocations in the interlanguage. In the relevant research literature (e.g., Meechai & Chumworathayee, 2015; Phoocharoensil, 2011, 2014; Yumanee & Phoocharoensil, 2013), it is also evident that patterns of collocation acquisition among learners of different proficiency levels have not been systematically investigated. Another domain largely unexplored by extant research in Thailand is whether different tasks administered would yield different sequences of collocation acquisition.

As discussed, there are some areas yet to be explored within the interlanguage perspective. The current study thus attempted to explore what grammatical and lexical collocations Thai EFL learners found difficult and whether two groups, one of advanced and the other of basic learners, demonstrated the same sequence of collocation acquisition. The study also aimed to investigate whether any of the distinct tasks administered significantly influenced the learners' acquisition of L2 collocations. The current investigation would help enrich the understanding of the mechanisms underlying Thai EFL speakers' acquisition of L2 collocations in their interlanguage, which ultimately assists in constituting various effective means of collocation instruction and in contributing to the research literature related to the acquisition of L2 collocations.

#### LITERATURE REVIEW

This section defines what a collocation is, followed by a discussion of the notion of interlanguage and interlanguage variability, highlighting variability resulting from the use of distinct task types and first language (L1) interference. The literature section ends with a discussion of previous related studies in the context of Thailand.

# **DEFINING COLLOCATIONS**

In the research literature, there is apparently no single definition agreed upon as to what a collocation is (Fan, 2009; Gyllstad & Wolter, 2016). However, there are two main approaches, phraseological and frequency-based, which abound in L2 collocation research (Barfield & Gyllstad, 2009; Gyllstad & Wolter, 2016). In the phraseological model, collocations are viewed as a result of different degrees of semantic transparency (Benson, Benson, & Ilson, 1997; Nesselhauf, 2003, 2005). Essentially, free combinations are viewed by virtue of two or more constituent words which are used in a literal sense. For example, the constituent words in the free combination *kick a ball* appear with their literal meaning and hence are restricted to a higher level of semantic transparency. In contrast, collocations are regarded as word combinations in which only one element is used with its literal meaning, while the other is used in a restricted sense. For instance, the word combination *draw a conclusion* is regarded as a collocation as the noun *conclusion* is used in its literal sense, while the verb *draw* is used in its specialized or restricted sense. This clearly displays a lower degree of semantic transparency in the phraseological tradition.

Within the frequency-based approach, a collocation is characterized based on the statistical strength of the co-occurrence of word combinations or how frequently a certain word combination co-occurs in corpora (Gyllstad & Wolter, 2016; Sinclair, 1991; Webb, Newton, & Chang, 2013; Wolter & Gyllstad, 2013). In the current study, collocations are defined in accordance with the frequency-based model, which has been adopted in several other studies (e.g., Webb, Newton, & Chang, 2013; Wolter & Gyllstad, 2013). The choice of the frequency-based approach is suitable as it helps researchers identify collocates for a certain word quickly, as supported by Webb, Newton, and Chang (2013). Given the two verb-

noun combinations of *make a mistake* and *do a mistake*, the former would be acknowledged as a collocation, for it is used more frequently than the latter (the Corpus of Contemporary American English). However, collocations can be regarded as idioms within the frequency-based approach (Webb, Newton, & Chang, 2013). For example, the word combination *pull strings* can be delineated as both a collocation, as its literal meaning and an idiom, which means *to use your influence over important individuals to get something or help someone else* (Gyllstad & Wolter, 2016). Consequently, idioms, referred to as expressions whose meanings cannot be immediately determined by the regular meaning of their constituent words (Cooper, 1999), were eliminated from this study. In particular, collocations allowed in this study are those such as *full time*, *raise money*, or *wait for*, which have a high degree of semantic transparency.

Although defining collocations seems to be problematic among numerous L2 scholars, the current study opted to use the frequency-based approach to distinguish between collocations and free combinations. As the use of the frequency-based model is likely insufficient to delimit idioms from collocations, the current investigation focused mainly on collocations whose meanings can be derived by the regular meanings of their constituent elements.

#### INTERLANGUAGE AND INTERLANGUAGE VARIABILITY

The concept of interlanguage has been widely adopted to describe how learners develop their linguistic knowledge, ultimately allowing researchers to gain a fuller understanding of the learning process (see e.g., Fauziati, 2017; Phoocharoensil, 2011; Sridhanyarat, 2017; Sumonsriworakun & Pongpairoj, 2017). Thus, this study adopted the notion of interlanguage serving as the major theoretical framework to account for the way Thai EFL learners develop their knowledge of L2 collocations. As initially coined by Selinker (1972), the term *interlanguage* refers to the linguistic system where a learner attempts to communicate meanings in a particular language he or she is being exposed to. Within interlanguage, the linguistic system is distinct from both the native language (NL) and the target language (TL). Interlanguage has a slight variation in terms of its definition. For example, Nemser (1971) refers to interlanguage as an approximative system, while Corder (1971) views it as transitional competence. Overall, it is generally acknowledged that interlanguage is the linguistic system independent of both the NL and the TL.

Interlanguage is systematically variable (Ellis, 1985; Tarone, 1983). By variability, two or more alternative rules are used interchangeably to express meanings in a certain context. During learners' development of a certain linguistic form, there exist interlanguage variations. To ensure that a language learner can fully reach the interlanguage continuum, he or she must demonstrate a high percentage of accuracy for a particular language feature. In this study, the point of acquisition was designated on the basis of at least 80% accuracy for a given structure. This figure helps in clarifying whether a particular form is fully acquired and hence indicates that the interlanguage variability may be fading (Andersen, 1978; Carlisle, 2006; Eckman, 1991; Sridhanyarat, 2017).

When it comes to interlanguage, there includes an unstable system and is hence invaded by new linguistic features. Interlanguage can be explained by two principal hypotheses: nonsystematic and systematic variability (Ellis, 1985). Nonsystematic variability can be described as a certain context where two or more language forms are produced interchangeably in order to express the same meaning (Ellis, 1985; Larsen-Freeman & Long, 1991; Song, 2012). For example, a young Portuguese learner produced *No look my card* and *Don't look my card* interchangeably for the target *Don't V* negation (Ellis, 1984). Systematic variability is viewed as a certain situation where the causes of interlanguage can be predicted

and accounted for. There are linguistic and situational contexts involved in systematic variability. By variability in linguistic contexts, Song (2012) means that a learner's production of a particular TL feature changes when the linguistic context changes. For example, a language user can master the verb-preposition collocation *wait for* as in the sentence *She waited for him outside*, but he or she cannot do it well as in the sentence *I did not wait a reply*, where *for* is omitted. With respect to variability in situational contexts or task variability, Larsen-Freeman and Long (1991) mean that tasks administered under different contexts can bring about different findings. Ellis (1985) further bolsters that the use of distinct task types may lead to variability in interlanguage. For instance, a learner may produce the verb-preposition collocation *wait for* in receptive tasks with ease, but he or she may have difficulty with it in productive tasks. In this study, task variability is the only main focus because it seems to be a huge area unaddressed in L2 collocation research within the Thai EFL setting, and it is directly related to the types of tasks (receptive and productive tasks) administered to its participants.

Task variability under investigation is viewed in connection with receptive and productive tasks. The receptive task is described as the learner's ability to recognize various aspects of collocation knowledge in listening and reading (Laufer et al., 2004). Conversely, the productive task is defined as the learner's ability to produce multiple features of collocation knowledge in speaking and writing (Laufer et al., 2004). The current study focused primarily on receptive tasks in terms of reading (multiple-choice tasks) and productive tasks in controlled writing (gap-filling tasks with prompts in Thai), which is explicitly described in the method section.

Overall, this study considered task variability to determine whether Thai learners' order of collocation acquisition was potentially affected by the administration of receptive and productive tasks. The findings obtained would provide invaluable insights into certain aspects of ELT, such as sequencing of pedagogical task design (Larsen-Freeman & Long, 1991).

In interlanguage, it seems likely that L1 transfer is dominant in accounting for collocation errors (Boonyasaguan, 2006; Phoocharoensil, 2011; Sumonsriworakun & Pongpairoj, 2017). Although NL interference was not directly investigated in the current study, it can serve as an explanatory account of the research findings. L1 transfer, one of the crucial factors contributing to fossilization in interlanguage, refers to a certain context where a language user transfers some NL rules to their TL counterparts. Transfer can be considered both positive and negative. Positive transfer arises in certain contexts where the learner's NL and TL have similar forms, subsequently enhancing the TL learning process (Saville-Troike, 2006). For example, Sumonsriworakun and Pongpairoj (2017) assert that Thai learners were able to produce congruent collocations such as succeed in which can be directly translated word for word between Thai and English. In case the learner's NL rule is different from the TL counterpart, such a difference may lead to negative transfer, probably impinging on the correct use of the TL rule (Saville-Troike, 2006). For instance, Phoocharoensil (2011) discovered that Thai learners' incorrect use of prepositions after a verb (i.e., listen music) relies heavily on L1 interference. In Thai, *listen music* is acceptable. However, the verb *listen* cannot be immediately followed by the noun music in English. A seminal study by Sumonsriworakun and Pongpairoj (2017) also affirms that Thai speakers' difficulty with English verb-preposition use is attributable to negative transfer. In their study, Thai participants had difficulty producing incongruent collocations such as depend on, where depend with, a deviant collocation, is more acceptable in Thai. Nesselhauf (2003) further proposes that German speakers' use of verb-noun collocations was potentially affected by negative L1 interference. Specifically, she assumed that the learners may have transferred the German verb *machen*, whose meaning is similar to *make* in English, to the target combination

do homework. From the evidence discussed, it is apparent that both positive and negative language transfer potentially affect L2 learners' acquisition of collocations.

In summary, this study focused mainly on interlanguage and interlanguage variability due to receptive and productive tasks. It also discussed the role of language transfer, a plausible factor pertaining to the interlanguage use of collocations by Thai EFL students.

#### RELEVANT STUDIES

Within the EFL context of Thailand, studies of collocations have captured a number of researchers' attention; however, a substantial body of relevant research has focused primarily on collocation errors among learners and the causes of such errors. For instance, Boonyasaquan (2006) analyzed collocation errors among 32 Thai undergraduates. In Boonyasaquan's study, the participants were encouraged to translate business news articles from Thai into English. The findings showed that the Thai students produced various collocation errors such as verb-preposition, verb-noun, and adjective-noun collocations. A plausible cause of collocation errors was pertinent to the learners' L1 Thai influence. Phoocharoensil's (2011) seminal discovery also supports that Thai university students have difficulty learning collocations. In this investigation, 90 first-year Thai undergraduates were put into two groups: advanced and basic. The data were gathered from the students' descriptive essays in class. The results demonstrated that the participants experienced difficulty learning English collocations, for example, verb-preposition, adjective-preposition, verb-noun, and adjective-noun collocations. Phoocharoensil further proposed that L1 transfer was a crucial factor contributing to the use of English collocations among his participants.

In addition, Yumanee and Phoocharoensil (2013) investigated collocation errors among Thai high school students divided into an advanced group (N = 30) and a basic group (N = 30). In their study, it was hypothesized that the L1 was attributed to the learners' collocation errors. A multiple-choice test and a Thai-English translation test were employed to measure the students' knowledge of collocations. As revealed, the participants encountered difficulties learning collocations, such as verb-preposition, adjective-preposition, verb-noun, and adjective-noun collocations. It was also confirmed that the learners' NL played a vital role in such collocation errors. Meechai and Chumworathayee (2015) investigated how Thai EFL undergraduates in Thai and English programs produced verb-noun collocations and examined sources of verb-noun collocation errors. The participants were divided into a Thai program group (N = 30) and an English program group (N = 30). Tasks administered to gather data included translation and gap-filling collocation tests. The results revealed that both groups of learners produced errors related to verb-noun collocations. Again, one of the sources of the errors was attributed to L1 interference. Chorbwhan and McLellan (2016) also studied Thai learners' English collocation knowledge. In this study, 39 Patani Malay and 39 southern Thai speakers were encouraged to perform gap filling and collocation judgment tests. As demonstrated, the participants committed errors regarding verb-preposition, verbnoun, and adjective-noun collocations. The results further showed that the learners' collocation errors were caused by L1 interference.

In conclusion, these previous studies reveal that Thai EFL learners have trouble using collocations, whereby L1 interference is considered a dominant source of collocation errors.

#### THE CURRENT STUDY

While research on L2 collocations has been substantial in the EFL context of Thailand, little is known about when learners fully acquire a particular collocation structure and whether learners of different proficiency levels exhibit the same order of acquisition. Furthermore, it

seems that the effects of distinct tasks on learners' acquisition of L2 collocations have not been systematically examined. With these points in mind, the current study endeavored to answer the following:

- 1. What L2 collocations do two groups of high and low proficiency Thai participants find difficult in their interlanguage?
- 2. Are rank orders of collocations produced by both advanced and basic participants relatively the same?
- 3. With respect to interlanguage variability, does the administration of different tasks produce a significant effect on the learners' sequence of collocation acquisition?

#### **METHODOLOGY**

In terms of interlanguage, few studies (Phoocharoensil, 2011; Sumonsriworakun & Pongpairoj, 2017) have addressed how Thai learners acquire a given collocation structure and whether learners from different proficiency levels produce the same pattern of collocation acquisition. However, effects of different task types on learners' acquisition of collocations have not been systematically investigated within the EFL context of Thailand. In an effort to bridge these research gaps, this study was carried out based on a cross-sectional research design in which data are gathered between groups of learners at a certain point in time. In order to fully understand the entire methodology process, this section first describes the participants of this study. Then the section explicitly describes the procedures for selecting target collocations and constructing research materials. Finally, the method section explains the data collection and analysis.

#### **PARTICIPANTS**

In this investigation, 90 undergraduates in a Thai university were classified into two groups of high (N = 45) and low (N = 45) proficiency participants according to their scores on the World English Placement Test Package (WEPTP), developed by Chase (2011). The WEPTP comprises three types of tests: Placement Test, Oral Placement Test, and Writing Placement Test. The Placement Test includes 70 items. Of the Placement Test, the first section (50 items) focuses on grammar and vocabulary skills, while the second (20 items) constitutes listening skills. Only the first section of the Placement Test was adapted to gather data regarding the current learners' English proficiency because it was effectively used by several researchers (e.g., Chorbwhan & McLellan, 2016; Suranakkharin, 2017) to measure learners' levels of English proficiency. In this research, the WEPTP allowed the researcher to gauge the appropriate English proficiency level of each participant (Chase, 2011).

In this study, the WEPTP with 50 test items was calculated as equal to 50 points. The students were allowed 30 minutes to complete the WEPTP. The current participants whose WEPTP scores were between 26 and 50 were assigned to the advanced group, whereas those whose scores were lower than 26 were placed in the basic group. In the former group, the mean score revealed by the WEPTP was 37.11 (SD = 4.83). In the latter, the mean score found was 17.49 (SD = 3.31). With a t-test, the mean scores illustrated that significant differences in the groups were found (P-value  $0.00 < \alpha 0.05$ ). Thus, it is reasonable to claim that the participants of this study came from different levels of English proficiency.

#### TARGET COLLOCATIONS

In this study, collocations are discussed on account of two aspects: structure and type. Structurally, a collocation consists of two elements: a node and a collocate (Shin & Nation,

2008). A node is the head word of a particular collocation, while a collocate is the constituent word which frequently co-occurs with the node. For example, *prime*, regarded as a collocate, frequently co-occurs with the node *time* as in the collocation *prime time*.

Also, collocations can be divided into two types: grammatical and lexical collocations. According to Benson, Benson, and Ilson (1997), grammatical collocations are word combinations of adjectives, verbs, nouns, and prepositions, whereas lexical collocations consist of various combinations of adjectives, verbs, adverbs, or nouns. It should be noted that lexical collocations do not include prepositions. In this research, two subtypes of collocations: verb-preposition and adjective-preposition collocations under the grammatical type were selected, while under the lexical type, two subtypes: verb-noun and adjective-noun collocations were targeted. These subtypes of collocations were developed based on previous research results which indicated that Thai learners had difficulty learning verb-preposition, adjective-preposition, verb-noun, and adjective-noun collocations. Boonyasaguan (2006) investigated collocational violations in translating business text from Thai into English among Thai university students. She discovered that verb-noun and verbpreposition collocations were difficult for the participants to acquire. One of the plausible sources of collocation errors was attributed to L1 interference. Another seminal investigation into the use of collocations among Thai learners was carried out by Phoocharoensil (2011). In his investigation, the participants' essays were collected. As demonstrated, both lexical and grammatical collocations posed difficulty to the participants. Specifically, the Thai students produced collocation errors such as verb-preposition, adjective-preposition, verb-noun, and adjective-noun collocations. The findings also revealed that L1 transfer was one source of collocation errors among the participants. Phoocharoensil (2013) further supports that Thai learners have difficulty producing collocations. In his investigation, Thai undergraduates' descriptive essays were gathered. The findings illustrated that the participants produced collocation errors regarding verb-preposition and adjective-preposition collocations. Again, L1 interference was considered the most outstanding cause of collocation errors found among these participants.

Apparently both grammatical collocations, namely verb-preposition and adjective-preposition and lexical collocations, particularly verb-noun and adjective-noun are problematic for Thai learners to acquire. The most dominant cause of collocation problems pertains to L1 influence. Target collocations in this study were thus developed on the basis of these previous research findings.

The collocation items were constructed by virtue of the following procedures. For this study, a list of 60 candidate collocations (see Appendix C for further details) was initially developed, 46 of which were adapted from previous relevant studies (i.e., Bueraheng, 2014; Chorbwhan & McLellan, 2016; Gyllstad, 2007; Mongkolchai, 2008; Phoocharoensil, 2013; Yumanee, 2011), while the others were developed by the researcher. As discussed, four subtypes: verb-preposition, adjective-preposition, verb-noun, and adjective-noun collocations were targeted in this study. In each subtype, there were 15 potential collocations. Before the task construction, the 60 candidate combinations were checked against the online version of the Corpus of Contemporary American English (COCA) and the Oxford Collocations Dictionary for Students of English (2009). In this study, COCA, as developed by Davies (2008), was selected because it provided the researcher with the frequent use of words, phrases, or collocations in authentic contexts (Phoocharoensil, 2017) and offered useful insights into other English corpora. In this investigation, the frequency of each candidate collocation determined against COCA was designated on the basis of at least 100 occurrences. Further, the 60 potential collocations were checked against the Oxford Collocations Dictionary for Students of English (2009) to ensure that they could be truly regarded as target collocations for this study. In total, 60 collocations were suitable for

developing the research materials. Suitable collocations in Items 1-6 presented in each subtype of collocation (see Appendix C) were randomly selected for the task construction. Specifically, suitable collocations in Items 1-3 were embedded in the receptive task, and those in Items 4-6 were used for the productive task.

#### RESEARCH MATERIALS

Two types of tasks: receptive (see Appendix A) and productive (see Appendix B) were constructed and employed to obtain the current data. The tasks were developed based on task variability in receptive and productive collocation knowledge. Prior to the actual research, the tasks were examined for content validity using the Index of Item-Objective Congruence (IOC) by two research assistants, one of whom was a native speaker of English who had been teaching English in a Thai university for over six years, while the other was a Thai doctoral lecturer of English whose expertise centered on English language teaching and learning. As developed by Rovinelli and Hambleton (1977), an evaluation using IOC is a process in which a content expert assesses each test item by giving the item a rating scale of 1 (certain that the test item is clear), 0 (uncertain whether the test item is clear), -1 (certain that the test item is unclear). In this study, all test items were guaranteed by a minimum IOC index value of 0.75 which is considered a statistically accepted value for the task development (Turner & Carlson, 2003). In this regard, some typing and grammatical mistakes in the tasks were detected for further correction.

A pilot study was then performed with 20 Thai EFL undergraduates to examine the reliability of the tasks using Cronbach's Alpha to measure the reliability of the test scores (Tavakol & Dennick, 2011). In the pilot study, both receptive and productive tasks were administered to the university students. Statistically, a commonly accepted value for describing reliability of test scores is  $\alpha \geq 0.70$  (Cortina, 1993). Under investigation, the task reliability was statistically guaranteed at significance levels  $\alpha = 0.84$  for receptive tasks and  $\alpha = 0.81$  for productive tasks.

# DATA COLLECTION PROCEDURES AND DATA ANALYSIS

Before the tasks were administered, the participants were asked to sign a consent form to ensure their full participation in the current study. The receptive task was administered first, followed by the productive task. Each task lasted approximately 15 minutes. Both the receptive and productive tasks were administered to gauge the students' processing of L2 collocations in their interlanguage. The receptive task required the test takers to simply identify whether the word combinations given in the items were commonly used in English. In the productive task, the participants were expected to supply the correct collocate appropriately used with the node given. In each item, the L1 Thai translation equivalent was provided as a prompt to trigger the target collocation.

Following the actual study, the tasks were sent out to two research assistants to help verify the data. Zero points were allotted to an inaccurate response. Spelling errors were restricted; the participants were not allowed to make spelling errors such as *mad*, *mak*, or *makeing* as in the collocation *make mistakes*. Errors resulting from parts of speech were counted as zero points. Specifically, an individual participant was not permitted to produce the noun *society* for the adjective *social* as in *social life*. Deviant collocates for a certain node were also eliminated from the study. For example, the preposition appropriately used for the verb *contribute* is *to*. Other deviant prepositions such as *at*, *with*, or *on* for the target verb *contribute* were considered invalid, resulting in zero points. However, errors arising from tenses or other grammatical forms were disregarded because they were not the major focus of this study. For example, the possible forms of the third person singular verb *takes* in the

sentence He takes his responsibilities as a doctor very seriously could be take, took, taken, and taking. This means that the participants who produced take, took, taken, or taking for the target takes as in He takes his responsibilities as a doctor very seriously would gain one point.

The raw scores were then analyzed based on three statistical tests: Wilcoxon Signed Rank Test, Friedman Test, and MANOVA. Wilcoxon Signed Rank Test was performed to measure the participants' difficulty of collocation use, while Friedman Test was done to display their order of collocation acquisition. Finally, MANOVA was conducted to determine whether different tasks were statistically varied regarding the participants' order of acquisition.

#### **RESULTS**

This section addresses three issues corresponding to the research questions: Thai learners' difficulty of collocation use, their order of collocation acquisition, and effects of task differences on their sequence of acquisition. For convenience, these points are structured as follows.

#### DIFFICULTY OF L2 COLLOCATION ACQUISITION

Research Question 1 addressed what target collocations caused difficulty for Thai learners. In order to answer the first research question, it was necessary to formulate two hypotheses based on a Wilcoxon Signed Rank Test as follows: H0: the median for a particular variable is equal to 0.80, whereas H1: the median for a particular variable is not equal to 0.80. Thus, Number 0.80 refers to 80%, used in several studies (e.g., Andersen, 1978; Carlisle, 2006; Eckman, 1991; Sridhanyarat, 2017) as the criterion level of acquisition. If the P-value of each particular variable is less than  $\alpha$  0.05, it can be confirmed that that variable is statistically difficult for the informants in the interlanguage. However, if the P-value of each variable is higher than  $\alpha$  0.05, it is reasonable to ascertain that such a variable is not statistically difficult for the learners. These H0 and H1 are further illustrated below Tables 1 and 2 to confirm whether a particular collocation is difficult for the participants. Table 1 provides the answers for Research Question 1.

**Target Collocations** Number of Wilcoxon P-values **Estimated Participants Statistics** Median 1. Verb-preposition (receptive task) 45 510.00 0.47 2.50 2. Adjective-preposition (receptive 45 245.00 2.00 0.01\*3. Verb-noun (receptive task) 45 147.00 0.00\* 1.50 4. Adjective-noun (receptive task) 0.00\* 45 212.00 2.00 5. Verb-preposition (productive task) 45 374.00 0.34 2.00 6. Adjective-preposition (productive 45 147.00 0.00\* 1.50 task) 7. Verb-noun (productive task) 45 36.00 0.00\* 1.00 8. Adjective-noun (productive task) 45 0.00 0.00\* 1.00

TABLE 1. Difficulty of collocation use among advanced learners

\* $\overline{P\text{-value}} < 0.05$ 

In Table 1, P-value 0.47 for the use of verb-preposition collocations (receptive task) and P-value 0.34 for the use of verb-preposition collocations (productive task) are higher than  $\alpha$  0.05 (P-values 0.47 and 0.34 > 0.05; H0 is accepted). Thus, it can be concluded that the advanced participants could fully acquire verb-preposition collocations in both receptive and

productive tasks in the interlanguage. In contrast, the learners encountered difficulty learning adjective-preposition, adjective-noun, and verb-noun collocations in both the receptive and productive tasks at the significance level (P-value 0.00 < 0.05; thus, H1 is accepted).

TABLE 2. Difficulty of collocation use among basic learners

Target Collocations	Number of Participants	Wilcoxon Statistics	P-values	Estimated Median
1. Verb-preposition (receptive task)	45	106.00	0.00*	1.50
2. Adjective-preposition (receptive	45	182.00	0.01*	1.50
task)				
3. Verb-noun (receptive task)	45	188.00	0.00*	1.50
4. Adjective-noun (receptive task)	45	270.00	0.00*	2.00
5. Verb-preposition (productive task)	45	252.00	0.00*	2.00
6. Adjective-preposition (productive	45	4.00	0.00*	0.50
task)				
7. Verb-noun (productive task)	45	0.00	0.00*	0.50
8. Adjective-noun (productive task)	45	0.00	0.00*	2.00

<sup>\*</sup>P-value < 0.05

Table 2 reveals that the basic learners had difficulty with all the collocations examined in the research at the significance level (P-value 0.00 for each collocation is lower than  $\alpha$  0.05; thus, H1 is accepted).

As demonstrated by both receptive and productive tasks, it is concluded that only advanced Thai EFL learners did not experience difficulty acquiring verb-preposition collocations in the interlanguage.

#### ORDER OF L2 COLLOCATION ACQUISITION

The second research question of whether the advanced and basic groups demonstrated the same order of collocation acquisition was next addressed. In order to do so, it was essential to carry out a Friedman Test to measure orders of collocation acquisition. As illustrated in Table 3, the Asymp.Sig (labelled as 0.00\*) is less than Alpha 0.05; therefore, each collocational type under investigation can be statistically ranked according to its mean score.

TABLE 3. Order of acquisition by high proficiency learners

Ranks (Receptive Task)	Mean	Asymp.Sig	Ranks (Productive Task)	Mean	Asymp.Sig
	Rank			Rank	
1. Verb-preposition	2.99	0.00*	1. Verb-preposition	3.40	0.00*
2. Adjective-preposition	2.55	0.00*	2. Adjective-preposition	2.51	0.00*
3. Adjective-noun	2.31	0.00*	3. Adjective-noun	2.06	0.00*
4. Verb-noun	2.15	0.00*	4. Verb-noun	2.02	0.00*

<sup>\*</sup>Asymp.Sig < 0.05

In Table 3, the results obtained from both the receptive and productive tasks clearly indicate that the advanced learners acquired verb-preposition collocations in the earliest stage (Asymp.Sig  $0.00 < \alpha \ 0.05$ ). They also employed adjective-preposition collocations in the second stage of acquisition (Asymp.Sig  $0.00 < \alpha \ 0.05$ ). Finally, these learners produced adjective-noun and verb-noun collocations in Rankings 3 and 4, respectively (Asymp.Sig  $0.00 < \alpha \ 0.05$ ).

Ranks (Receptive Task)	Mean	Asymp.Sig	Ranks (Productive Task)	Mean	Asymp.Sig
	Rank			Rank	
1. Adjective-noun	2.70	0.00*	1. Verb-preposition	3.55	0.00*
2. Adjective-preposition	2.47	0.00*	2. Adjective-noun	2.56	0.00*
3. Verb-noun	2.44	0.00*	3. Adjective-preposition	1.99	0.00*
4. Verb-preposition	2.40	0.00*	4. Verb-noun	1.90	0.00*

TABLE 4. Order of acquisition by low proficiency learners

In Table 4, the findings gathered from the productive task illustrate that the less proficient learners used the verb-preposition collocation in the earliest stage; however, they used it in the latest stage of the receptive task (Asymp.Sig  $0.00 < \alpha 0.05$ ). In the receptive task, the participants exhibited the adjective-noun collocation in the earliest ranking, whereas they used this type of collocation in the second ranking in the productive task (Asymp.Sig  $0.00 < \alpha 0.05$ ). The less competent learners produced adjective-preposition and verb-noun collocations in Rankings 2 and 3 in the receptive task, but they used these collocations in Rankings 3 and 4 in the productive task (Asymp.Sig  $0.00 < \alpha 0.05$ ). From the findings, it is concluded that the two groups divided into advanced and basic participants did not exhibit the same pattern of collocation acquisition.

#### **EFFECTS OF TASK TYPES**

Research Question 3 focused on whether different tasks administered would exercise a significant effect on Thai participants' order of collocation acquisition. The results are interpreted according to a MANOVA test, aiming to test differences in two or more vectors of means (Carey, 1998).

TABLE 5. Task factor affecting Thai learners' difficulty of collocation acquisition

Effect	Criteria	Statistical Tests	P-values
Task Types	Pillai's Trace	0.42	0.00*
• •	Wilks' Lambda	0.58	0.00*

<sup>\*</sup>P-value < 0.05

As revealed in Table 5, the administration of receptive and productive tasks significantly affected Thai EFL participants' difficulty of L2 collocation acquisition at the significance level (P-value  $0.00 < \alpha \ 0.05$ ). This evidence leads to the conclusion that both receptive and productive tasks significantly affected the Thai EFL learners' sequence of collocation acquisition.

# **DISCUSSION**

The current study investigated Thai learners' difficulty of collocation use in their interlanguage and investigated whether two groups separated into advanced and basic learners would produce the same patterns of collocation acquisition. The study also investigated whether the administration of both receptive and productive tasks would cause variation in the participants' acquisition order. The study yielded three major findings. First, it was observed that the basic group of learners had difficulty acquiring verb-preposition, adjective-preposition, verb-noun, and adjective-noun collocations. The advanced learners also experienced difficulty producing adjective-preposition, verb-noun, and adjective-noun collocations across the tasks administered. Interestingly, only verb-preposition collocations were found to be easy for the advanced learners to acquire in both receptive and productive

<sup>\*</sup>Asymp.Sig < 0.05

tasks. Secondly, the order of acquisition between high and low proficiency learners was not relatively consistent. The highly proficient learners acquired verb-preposition and adjectivepreposition collocations before their adjective-noun and verb-noun counterparts; however, the basic learners appeared to use the same collocations inconsistently across the tasks. Finally, it was discovered that the tasks administered exerted a significant impact on the participants' pattern of collocation acquisition. The current findings suggest that the advanced and basic groups of Thai learners did not opt to employ the same learning process in acquiring target collocations in the interlanguage. These significant discoveries can be elucidated on account of L1 transfer, transfer of prior knowledge of a certain congruent collocation, familiarity with receptive tasks, and effects of both receptive and productive tasks. At this juncture, the findings only indicated that receptive and productive tasks significantly affected variation in the Thai learners' interlanguage use of collocations. In interlanguage, variability is pervasive by virtue of diverse plausible determinants such as NL interference (Phoocharoensil, 2011; Selinker, 1972), transfer of training (Selinker, 1972), or the property of a particular language structure (Sridhanyarat, 2017). In this study, only the effect of both receptive and productive tasks was directly investigated and is thus considered a crucial factor pertinent to interlanguage variability in the acquisition of collocations among Thai learners. Although the factors of L1 transfer, transfer of prior knowledge of a certain congruent collocation, and familiarity with receptive tasks are not directly determined under investigation, they serve as plausible determinants to account for the findings.

In this study, L1 interference had a significant effect on the Thai EFL learners' acquisition of verb-preposition collocations. In the interlanguage, both positive transfer and negative transfer can potentially influence L2 learners' learning process (Saville-Troike, 2006; Sumonsriworakun & Pongpairoj, 2017). In this study, it was assumed that learners from different proficiency levels would not exhibit the same L1 transfer strategy in learning verb-preposition collocations. Specifically, the advanced learners may have positively benefited from their L1 when producing verb-preposition collocations in the productive task. However, the same may not have held for the basic learners as they found verb-preposition collocations problematic in the productive task. This evidence leads to the speculation that the advanced learners exploited positive language transfer in mastering verb-preposition collocations, while the basic learners could not; they were potentially affected by negative L1 transfer.

The premise was evident in the production of verb-preposition collocations in the productive task. In the receptive task (see Appendix A for further details), all verbpreposition collocations under observation included contribute to, ask for, and depend on, where to, for, and on, which are not common in the Thai language. In the productive task (see Appendix B), incongruent verb-preposition collocations take care of and wait for, where of and for, also not commonly used in Thai, were presented. In this type of task, there was an item with the congruent verb-preposition collocation participate in, where in also exists in the Thai language. There is abundant evidence that L1 interference produces an effect on Thai learners' acquisition of L2 collocations. For example, Sumonsriworakun and Pongpairoj (2017) addressed that Thai learners likely succeed in learning congruent verb-preposition constructions (e.g., agree with and differ from), which can be translated directly between Thai and English. However, Thai EFL users seem to have difficulty learning incongruent collocations such as the English combination die of or from, where of and from are not commonly used in Thai; they likely use two English deviant prepositions by and with. This evidence advocates that collocation errors can be caused by both positive and negative transfer. Phoocharoensil's (2013) study added support to the premise that collocation errors are mainly attributable to negative transfer. In his major discovery, it was revealed that Thai EFL students avoided using the preposition of after take care, where of is not used in Thai.

As Phoocharoensil (2014) remarked, negative language transfer is one of the vital factors which account for collocation errors committed by Thai EFL speakers. In his findings, Phoocharoensil asserted that Thai learners likely avoided using the preposition for following the verb wait as in I will wait for her at the bus stop, where for is not produced in Thai. In the Hong Kong context, Fan (2009) also stated that L2 collocational use is affected by negative transfer. In Fan's seminal study, where the writing of Hong Kong ESL and British students were studied, it was discovered that Hong Kong ESL students used the verb-preposition collocation wearing...on his neck, a collocational form acceptable in Chinese, more frequently than wearing...around his neck, of which instances were more frequent in the British written corpus. The evidence discussed above suggested that L1 interference may have played a prominent role in Thai learners' acquisition of verb-preposition collocations. However, it is assumed here that learners from different proficiency levels probably did not employ the same L1 transfer strategy in acquiring verb-preposition collocations. That is, the advanced participants potentially used positive L1 transfer in learning verb-preposition collocations in the productive task, while the basic participants tended to use negative transfer as a learning strategy.

As demonstrated in the findings, positive language transfer probably did not account for the advanced learners' result related to verb-preposition collocations. This suggested that the advanced participants did not rely upon 100% positive transfer. Although both receptive and productive tasks consisted of incongruent combinations such as *ask for*, *depend on*, or *wait for*, the advanced participants did not encounter any difficulty with verb-preposition collocations at all. This evidence points out that positive L1 transfer alone may not have served as a convincing explanation to account for the advanced Thai learners' correct interlanguage use of verb-preposition collocations. It is reasonable to venture the following plausible explanations.

Firstly, it is likely that the advanced learners' prior knowledge of the congruent verbpreposition participate in may have facilitated their interlanguage use of target incongruent verb-preposition collocations. There were two concrete examples that strongly supported such a claim. The first example was observed in the acquisition of verb-preposition collocations in the productive task (see Appendix B), where the congruent collocation participate in was embedded. Given the receptive task (see Appendix A), there appeared only incongruent verb-preposition collocations, i.e., contribute to, depend on, and ask for. Generally, contribute with and depend with, deviant collocations in English, are likely more acceptable in Thai, and Thai learners rarely use the preposition for after the verb ask as in ask for. The findings clearly indicated that the advanced participants did not encounter difficulty with these incongruent verb-preposition collocations in the receptive task. This was probably due to the fact that they were able to acquire the verb-preposition collocation participate in with ease which resulted in their correct use of the incongruent collocations in the receptive task. The second instance that lends further support to the notion of prior knowledge transfer was witnessed in the use of adjective-preposition collocations. Despite difficulty, the advanced participants produced adjective-preposition collocations in the second stage (before adjective-noun and verb-noun collocations) in both the receptive and productive tasks. As embedded in the productive task (see Appendix B), the adjective-preposition collocation different from was similar to that in the Thai language in the sense that Thai learners generally use from adjacent to different in their NL. With the evidence discussed, it can be speculated that the advanced learners may have transferred their prior knowledge of the congruent verb-preposition collocation participate in or even adjective-preposition collocation different from to their incongruent counterparts. The proposed concept of prior knowledge transfer seems to be consistent with Zhang's (2017) in the sense that prior knowledge or schema may directly affect L2 learners' acquisition of collocations. Zhang

highlighted that language learners produce significantly more correct responses for collocations with known words than unknown words. Barcroft (2006) also noted that special attention devoted to the meaning of known collocations potentially brings some positive effects to the learning of such collocations. Noticeably, this transfer of prior knowledge dominated solely in the advanced group.

Secondly, it is speculated that the advanced learners' familiarity with receptive tasks was responsible for their correct use of verb-preposition collocations. In this regard, the current findings only revealed that task differences (receptive and productive tasks) produced a significant impact on Thai learners' interlanguage use of English collocations. Thus, it seems difficult to claim that the advanced learners' accurate use of verb-preposition collocations was mainly attributed to their familiarity with receptive tasks. Although there was no congruent verb-preposition collocation in the receptive task, the advanced students appeared to use it with ease. In the research literature, there have been several studies supporting the premise offered earlier. For example, Nation (1990) advocated that language learners tend to find receptive collocation knowledge easier than productive knowledge as the former is less complex than the latter. Chorbwhan and McLellan (2016) further asserted that collocation learning gains in receptive knowledge are more successful than those found in productive knowledge. In Koya's (2005) seminal research, it was discovered that Japanese learners generated more correct responses for receptive tasks than they did in productive tasks because the receptive tasks consisted of multiple choice items with a limited number of options, making it easier for them to choose correct responses. As Alali and Schmitt (2012) have advocated, learning gains in receptive knowledge are higher than those in productive knowledge. Bueraheng (2014) also indicated that Thai EFL learners produce verb-noun and adjective-noun collocations in receptive tasks more easily than their productive equivalents. With the empirical evidence discussed, it can be posited that the advanced learners' familiarity with receptive tasks may have positively affected their correct use of verbpreposition collocations in the interlanguage.

With respect to task effects, it is also argued here that both receptive and productive tasks facilitated the systematic use of target collocations among the advanced learners. Simply put, the advanced learners produced verb-preposition and adjective-preposition collocations before verb-noun and adjective-noun collocations across the tasks administered. This was not true however for the basic learners; their use of each collocation shifted erratically back and forth with the tasks given. This evidence suggested that both receptive and productive tasks boosted the advanced learners' systematic use of target collocations only. The findings seem in agreement with Zhang's (2017) seminal study which addressed that receptive and productive tasks directly affect learners' knowledge of verb-noun collocations. As discussed, receptive and productive tasks produced a positive effect on the systematic use of L2 collocations among the advanced Thai learners only.

On the basis of these empirical findings, it can be concluded that the processes underlying the acquisition of L2 collocations among Thai EFL speakers are associated with their L1 influence, transfer of prior knowledge of a certain congruent verb-preposition collocation, familiarity with receptive tasks, and impacts of both receptive and productive tasks.

# PEDAGOGICAL IMPLICATIONS

In the present study, Thai learners were clearly affected by the complexity of target collocations. Only the advanced learners did not experience difficulty acquiring verb-preposition collocations in both receptive and productive tasks. In addition, the advanced and basic learners did not exhibit the same pattern of collocation acquisition. The tasks given

produced a significant effect on the learners' order of collocation acquisition. Based on the current findings, pedagogical implications are provided in a number of respects as follows.

As articulated by Ying and O'Neill (2009), L2 learners may not realize TL collocations as lexical units of input. Instead of learning a group of words, L2 learners tend to learn new words singularly. In teaching collocations, instead of individual words, a group of words or collocations should be taken into account. In addition, teachers may opt for enhancement techniques that have the potential to foster learners' knowledge of collocations. As Bahns (1993) proposed, a rich variety of teaching materials, such as exercises and workbooks geared to specific collocations learners find difficult should be introduced into English language classrooms. Koya (2005) indicated few useful collocations are presented in textbooks. To bridge this gap, teachers should select useful and meaningful materials for L2 learners, which help to promote the correct and appropriate use of collocations.

Although the productive and receptive tasks had a significant effect on the acquisition of target collocations among the Thai learners, it seemed that the findings were relatively inconsistent. For example, the basic participants generated the verb-preposition collocation first in the productive task, but fourth in the receptive task, suggesting that using receptive or productive tasks alone may not be sufficient in boosting L2 collocation learning in the classroom. Such evidence has been supported by Zhang's (2017) findings demonstrating that receptive-productive integration tasks may be a promising means to foster L2 learners' productive knowledge of collocations. Another possibility postulated by Wang (2012) is that instantiating comprehension-production integration tasks helps expedite learners' use of newly encountered linguistic features. This scholar advocated that tasks oriented toward both comprehension and production are more effective than comprehension or production alone. Likewise, Wang and Wang (2015) noted that effective learning is not attributed to comprehension or production alone. Simply put, they indicate that a receptive-productive integration task tends to encourage L2 users to produce more appropriate and accurate responses for model sentences. As supported by Laufer (1998), a shortage of effective tasks for the teaching of L2 vocabulary impedes learners to assimilate such vocabulary into free production. Thus, teachers may employ receptive-productive integration tasks that assist in boosting L2 learners' knowledge of collocations in a more effective fashion.

Furthermore, teachers may take into account the frequency of occurrence of a particular collocational type (Peters, 2014; Webb, Newton, & Chang, 2013). This manner of teaching collocations may be effective in the English language classroom. Laufer (2011) and Peters (2012) conferred advantages in learning collocations through access to meaning in dictionaries. Learners may be encouraged to have access to meaning via dictionaries accordingly.

In summary, as the current findings have suggested, teachers or educators may teach students a group of words instead of individual words by implementing meaningful materials geared to specific difficult collocations or receptive-productive integration tasks. They may also encourage their students to practice using frequency-based collocations and dictionaries in the English classroom.

# CONCLUSION AND DIRECTIONS FOR FUTURE STUDIES

This study examined Thai EFL students' difficulty of collocation use in their interlanguage and investigated whether two groups of advanced and basic students would demonstrate the same order of collocation acquisition. The study also delved into whether the administration of receptive and productive tasks would significantly affect the learners' acquisition order. It was discovered that only the advanced participants found verb-preposition collocations easy to acquire in both receptive and productive tasks. Also, the pattern of acquisition between

advanced and basic learners was not the same. Finally, it was found that the tasks administered significantly influenced the learners' order of collocation acquisition. These key findings were discussed in terms of L1 transfer, prior knowledge of a particular congruent collocation, familiarity with receptive tasks, and effects of both receptive and productive tasks.

Of the current study, limitations need to be noted in several respects. First, only two groups of participants were targeted in this investigation. This fact may restrict the generalizability of the findings. Secondly, this research was undertaken in a cross-sectional manner, which may lead to longitudinal research offering different results. Future studies could be carried out on the basis of a longitudinal research design. Thirdly, from the findings, it was speculated that the Thai learners' NL had a significant effect on their acquisition of L2 collocations. Substantial evidence has added support to this claim (e.g., Boonyasaquan, 2006; Phoocharoensil, 2011; Sumonsriworakun & Pongpairoj, 2017). Researchers interested in the field should investigate the effects of L1 interference on L2 learners by thoroughly controlling target variables containing both congruent and incongruent collocations. This point would certainly help provide more straightforward guidelines on studies regarding L1 transfer and the processes underlying their collocation acquisition. In addition, the advanced learners' prior knowledge of a certain collocation may have facilitated the successful learning of others. Researchers are encouraged to take into account this issue in further relevant investigations. As the use of distinct tasks significantly affected the acquisition of collocations among the learners, educators or researchers may devise tasks such as receptive tasks, productive tasks, or receptive-productive integration tasks to see their effects on learners' knowledge of L2 collocations in experimental classroom research. Posttask interviews regarding learners' acquisition of L2 collocations should also be conducted. This may provide useful insights into the mechanisms underlying learners' interlanguage use of L2 collocations. Finally, researchers interested in the field of vocabulary acquisition may study lexical bundles described as a string of words that co-occur in natural discourse (Kashiha & Heng, 2014) in L2 learners' interlanguage. This would help to offer a fuller understanding of how learners develop their lexical bundles in the interlanguage, consequently resulting in various effective modes of English instruction.

#### **ACKNOWLEDGEMENTS**

I am sincerely grateful for the insightful support of Associate Professor Dr. Tipa Thep-Ackrapong, my research mentor; Dr. Todsapon Suranakkharin for his assistance in data analysis and Worawimuit Pienplairrattana for his assistance in statistical analysis. I also thank the two anonymous reviewers for their invaluable feedback as well as the editors of the journal for their support. Last but not least, my most sincere thanks go to the participants of this study.

# REFERENCES

- Alali, F. A. & Schmitt, N. (2012). Teaching Formulaic Sequences: The Same as or Different from Teaching Single Words? *TESOL Journal. Vol.* 3(2), 153-180.
- Andersen, R. (1978). An Implication Model for Second Language Research. *Language Learning*. Vol. 28(2), 221-282.
- Bahns, J. (1993). Lexical Collocations: A Contrastive View. *ELT Journal. Vol.* 47(1), 56-63. Barcroft, J. (2006). Can Writing a Word Detract from Learning It? More Negative Effects of Forced Output during Vocabulary Learning. *Second Language Research. Vol.* 22, 487-497.

- Barfield, A. & Gyllstad, H. (2009). Introduction: Researching L2 collocation knowledge and development. In A. Barfield & H. Gyllstad, (Eds.). *Researching Collocations in Another Language* (pp. 118). London: Palgrave Macmillan.
- Benson, M., Benson, E. & Ilson, R. (1997). *The BBI Dictionary of English Word Combinations*. Amsterdam: John Benjamins.
- Boonyasaquan, S. (2006). An Analysis of Collocational Violations in Translation. *MANUTSAT PARITAT: Journal of Humanities. Vol. 27*(2), 79-91.
- Bueraheng, N. (2014). Receptive and productive knowledge of verb+noun and adjective+noun collocations of international program and English major students of Prince of Songkla University. Unpublished master's thesis, Prince of Songkla University, Thailand.
- Carey, G. (1998). Multivariate Analysis of Variance (MANOVA): I. Theory. Retrieved July 3, 2017 from <a href="http://ibgwww.colorado.edu/~carey/p7291dir/handouts/manova1.pdf">http://ibgwww.colorado.edu/~carey/p7291dir/handouts/manova1.pdf</a>
- Carlisle, R. S. (2006). The Sonority Cycle and the Acquisition of Complex Onsets. In B.O. Baptista & M.A. Watkins (Eds.). *English with a Latin Beat: Studies in Portuguese/Spanish-English Interphonology* (pp. 105-137). Amsterdam: John Benjamins Publishing Co.
- Chase, R. T. (2011). World English Placement Test Package. Retrieved March 17, 2017 from <a href="http://cengage.com.br/parcerias/gop/pdfs/World\_English\_Placement\_Test\_Package.p">http://cengage.com.br/parcerias/gop/pdfs/World\_English\_Placement\_Test\_Package.p</a> df
- Chorbwhan, R. & McLellan, J. (2016). First Language Transfer and the Acquisition of English Collocations by Thai Learners. *Southeast Asia: A Multidisciplinary Journal*. *Vol. 16*, 16-27.
- Cooper, T. C. (1999). Processing of Idioms by L2 Learners of English. *TESOL Quarterly*. *Vol.* 33(2), 233-262.
- Corder, S. P. (1971). Idiosyncratic Dialects and Error Analysis. IRAL. Vol. 9, 147-159.
- Cortina, J. M. (1993). What is Coefficient Alpha? An Examination of Theory and Applications. *Journal of Applied Psychology. Vol.* 78, 98-104.
- Coxhead, A. & Byrd, P. (2007). Preparing Writing Teachers to Teach the Vocabulary and Grammar of Academic Prose. *Journal of Second Language Writing. Vol. 16*, 129-147.
- Davies, M. (2008). The Corpus of Contemporary American English: 450 Million Words, 1990–Present. Retrieved February 5, 2017 from <a href="http://corpus.byu.edu/coca">http://corpus.byu.edu/coca</a>
- Eckman, F. R. (1991). The Structural Conformity Hypothesis and the Acquisition of Consonant Clusters in the Interlanguage of ESL Learners. *Studies in Second Language Acquisition. Vol. 13*, 23-41.
- Ellis, R. (1984). Classroom Second Language Development. Pergamon.
- Ellis, R. (1985). Understanding Second Language Acquisition. Oxford University Press.
- Fan, M. (2009). An Exploratory Study of Collocational Use by ESL Students—A Task Based Approach. *System. Vol. 37*(1), 110-123.
- Fauziati, E. (2017). Native and Target Language Influence on the Students' Interlanguage Production: A Case of Indonesian EFL Compositions. *Indonesian Journal of Applied Linguistics*. Vol. 7(1), 54-63.
- Gyllstad, H. (2007). Testing English Collocations: Developing Receptive Tests for Use with Advanced Swedish Learners. Lund: Lund University.
- Gyllstad, H. & Wolter, B. (2016). Collocational Processing in Light of the Phraseological Continuum Model: Does Semantic Transparency Matter? *Language Learning. Vol.* 66(2), 296-323.
- Hong, A. L., Hua, T. K. & Mengyu, H. (2017). A Corpus-based Collocational Analysis of Noun Premodification Types in Academic Writing. 3L: The Southeast Asian Journal of English Language Studies. Vol. 23(1), 115-131.

- Kashiha, H. & Heng, C. S. (2014). Discourse Functions of Formulaic Sequences in Academic Speech across Two Disciplines. *GEMA Online* Journal of Language Studies. Vol. 14(2), 15-27.
- Koya, T. (2005). The acquisition of basic collocations by Japanese learners of English. Unpublished doctoral dissertation, Waseda University, Japan.
- Larsen-Freeman, D. & Long, M. H. (1991). *An Introduction to Second Language Acquisition Research*. London: Longman.
- Laufer, B. (1998). The Development of Passive and Active Vocabulary in a Second Language: Same or Different? *Applied Linguistics. Vol. 19*(2), 255-271.
- Laufer, B. (2011). The Contribution of Dictionary Use to the Production and Retention of Collocations in a Second Language. *International Journal of Lexicography. Vol. 24*, 29-49
- Laufer, B., Elder, C., Hill, K. & Congdon, P. (2004). Size and Strength: Do We Need Both to Measure Vocabulary Knowledge? *Language Testing. Vol. 21*(2), 202-226.
- Lewis, M. (2000). *Teaching Collocation: Further Development in the Lexical Approach*. Hove, England: Language Teaching Publications.
- Meechai, D. & Chumworathayee, T. (2015). Verb + Noun Collocational Competence of Thai University EFL Students: A Comparative Study of a Regular Program and an English Program. *Language Education and Acquisition Research Network (LEARN) Journal.* Vol. 8(2), 145-160.
- Mongkolchai, A. (2008). A study of university students' ability in using English collocations. Unpublished master's project, Srinakharinwirot University, Thailand.
- Nation, I. S. P. (1990). Teaching and Learning Vocabulary. Rowley, MA: Newbury House.
- Nemser, W. (1971). Approximative Systems of Foreign Language Learners. *IRAL. Vol. 9*, 115-124.
- Nesselhauf, N. (2003). The Use of Collocations by Advanced Learners of English and Some Implications for Teaching. *Applied Linguistics*. *Vol.* 24(2), 223-242.
- Nesselhauf, N. (2005). Collocations in a Learner Corpus. Amsterdam: Benjamins.
- Oxford Collocations Dictionary for Students of English (2nd ed.). (2009). Oxford: Oxford University Press.
- Peters, E. (2012). Learning German Formulaic Sequences: The Effect of Two Attention-Drawing Techniques. *The Language Learning Journal. Vol. 40*(1), 65-79.
- Peters, E. (2014). The Effects of Repetition and Time of Post-Test Administration on EFL Learners' Form Recall of Single Words and Collocations. *Language Teaching Research*. Vol. 18, 75-94.
- Peters, E. & Pauwels, P. (2015). Learning Academic Formulaic Sequences. *Journal of English for Academic Purposes. Vol.* 20, 28-39.
- Phoocharoensil, S. (2011). Collocational Errors in EFL Learners' Interlanguage. *Journal of Education and Practice. Vol.* 2(3), 103-120.
- Phoocharoensil, S. (2013). Cross-Linguistic Influence: Its Impact on L2 English Collocation Production. *English Language Teaching. Vol.* 6(1), 1-10.
- Phoocharoensil, S. (2014). Exploring Learners' Developing L2 Collocational Competence. *Theory and Practice in Language Studies. Vol.* 4(12), 2533-2540.
- Phoocharoensil, S. (2017). Corpus-based Exploration of Linking Adverbials of Result: Discovering What ELT Writing Coursebooks Lack. 3L: The Southeast Asian Journal of English Language Studies. Vol. 23(1), 150-167.
- Rovinelli, R. J. & Hambleton, R. K. (1977). On the Use of Content Specialists in the Assessment of Criterion-Referenced Test Item Validity. *Dutch Journal of Educational Research*. *Vol.* 2, 49-60.

- Saville-Troike, M. (2006). *Introducing Second Language Acquisition*. Cambridge: Cambridge University Press.
- Schmitt, N. (2010). *Research Vocabulary. A Vocabulary Research Manual*. Basingstoke: Palgrave Macmillan.
- Selinker, L. (1972). Interlanguage. *International Review of Applied Linguistics. Vol. 10*(3), 209-231.
- Shin, D. & Nation, P. (2008). Beyond Single Words: The Most Frequent Collocations in Spoken English. *ELT Journal. Vol.* 62(4), 339-348.
- Sinclair, J. (1991). Corpus, Concordance, Collocation. Oxford, UK: Oxford University Press.
- Song, L. (2012). On the variability of interlanguage. *Theory and Practice in Language Studies*. Vol. 2(4), 778-783.
- Sridhanyarat, K. (2017). The Acquisition of L2 Fricatives in Thai Learners' Interlanguage. 3L: The Southeast Asian Journal of English Language Studies. Vol. 23(1), 15-34.
- Sumonsriworakun, P. & Pongpairoj, N. (2017). Systematicity of L1 Thai Learners' English Interlanguage of Dependent Prepositions. *Indonesian Journal of Applied Linguistics*. *Vol.* 6(2), 246-259.
- Suranakkharin, T. (2017). Using the Flipped Model to Foster Thai Learners' Second Language Collocation Knowledge. 3L: The Southeast Asian Journal of English Language Studies. Vol. 23(3), 1-20.
- Tarone, E. (1983). On the Variability of Interlanguage Systems. *Applied Linguistics. Vol.* 4(2), 142-164.
- Tavakol, M. & Dennick, R. (2011). Making Sense of Chronbach's Alpha. *International Journal of Medical Education. Vol.* 2, 53-55.
- Turner, R. C. & Carlson, L. (2003). Indexes of Item-Objective Congruence for Multidimensional Items. *International Journal of Testing. Vol.* 3(2), 163-171.
- Wang, C. (2012). The Continuation Task—An Effective Method in Enhancing Foreign Language Acquisition. *Foreign Language World. Vol.* 5, 2-7.
- Wang, C. & Wang, M. (2015). The Effect of Alignment on Written Acquisition. *Applied Linguistics*. Vol. 36, 503-526.
- Webb, S., Newton, J. & Chang, A. (2013). Incidental Learning of Collocation. *Language Learning*. Vol. 63(1), 91-120.
- Wolter, B. & Gyllstad, H. (2013). Frequency of Input and L2 Collocational Processing: A Comparison of Congruent and Incongruent Collocations. *Studies in Second Language Acquisition. Vol.* 35, 451-482.
- Wray, A. (2000). Formulaic Sequences in Second Language Teaching: Principle and Practice. *Applied Linguistics. Vol. 21*, 463-489.
- Wray, A. (2002). Formulaic Language and the Lexicon. Cambridge, UK: Cambridge University Press.
- Yamashita, J. & Jiang, N. (2010). L1 Influence on the Acquisition of L2 Collocations: Japanese ESL Users and EFL Learners Acquiring English Collocations. *TESOL Quarterly. Vol.* 44(4), 647-668.
- Ying, Y. & O'Neill, M. (2009). Collocation learning through an 'AWARE' approach: learner perspectives and learning process. In A. Barfield & H. Gyllstad (Eds.). *Researching Collocations in Another Language* (pp. 181-193). London: Palgrave Macmillan.
- Yumanee, C. (2011). Analysis of English collocational errors of Thai EFL students. Unpublished master's thesis, Thammasat University, Thailand.
- Yumanee, C. & Phoocharoensil, S. (2013). Analysis of Collocational Errors of Thai EFL Students. *LEARN Journal*. *Vol.* 6(1), 88-98.
- Zhang, X. (2017). Effects of Receptive-Productive Integration Tasks and Prior Knowledge of Component Words on L2 Collocation Development. *System. Vol. 66*, 156-167.

# APPENDIX A

# RECEPTIVE TASK

**Directions:** Circle the best answer that is appropriately used in each item.

1. Their future depends how well they do in these exams.	
A. to B. at	C. on
2. He didn't like to ask help even though he was starving.	C. 011
A. from  B. for	C. about
3. Davis didn't really contribute much the game in the second	
A. to B. in	C. at
4. Bob is pretty good fixing things.	
A. in B. with	C. at
A. in B. with  5. Everyone seems to be afraid her. A. of B. at	
A. of B. at	C. on
6. If your parents heard of your success, they would be proud	
A. with B. at	C. of
7. Our eyes time to adjust to the darkness.	
A. give B. make	C. take
8. Unless you a decision quickly, the opportunity will be los A. take B. make	t. C. find
9. We must encourage fathers to full responsibility for their A. spend B. use	C take
10 One of the advantages of time advertising is the largest v	viewing audiences
10. One of the advantages of time advertising is the largest value.  A. main B. leading	C. prime
11. In many cultures, families live together under one roof.	Grandparents look after the grandchildren
while their parents work.	
A. extended B. expanded	C. enlarged
12. When people all over the world are looking for a quick, easy meal	to grab on the go, food is the
common solution.	
A. quick B. fast	C. speedy
APPENDIX B	
APPENDIX B  PRODUCTIVE TASK	
	=
PRODUCTIVE TASK  Directions: In each item, write one word that is appropriat the line provided. There is a Thai translation as a clue in each item going to wait you in front of the school tomorrow. Thailand first participated the Olympics at the 1952	ow morning. Don't be late! (50)
PRODUCTIVE TASK  Directions: In each item, write one word that is appropriate the line provided. There is a Thai translation as a clue in each item going to wait you in front of the school tomorre. Thailand first participated the Olympics at the 1952 24 years to win its first medal. (10153114)	ow morning. Don't be late! (50) Helsinki Games and it took the country
PRODUCTIVE TASK  Directions: In each item, write one word that is appropriat the line provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. It is a provided in the Olympics at the 1952 and the Olympics at the Olympics at the 1952 and the Olympics at th	ow morning. Don't be late! (50) Helsinki Games and it took the country
PRODUCTIVE TASK  Directions: In each item, write one word that is appropriat the line provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. Item provided to the Olympics at the 1952 24 years to win its first medal. (10153111)  3. For centuries it has been assumed that women will stay home and tatheir husbands go out and work. (Qua)  4. The current economic situation makes people become worried	ch item.  ow morning. Don't be late! (50)  Helsinki Games and it took the country  ke care the children while
PRODUCTIVE TASK  Directions: In each item, write one word that is appropriat the line provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. It is a provided in the Olympics at the 1952 24 years to win its first medal. (107531111)  3. For centuries it has been assumed that women will stay home and the their husbands go out and work. (Alla)	ch item.  ow morning. Don't be late! (50)  Helsinki Games and it took the country  ke care the children while
PRODUCTIVE TASK  Directions: In each item, write one word that is appropriat the line provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. Item provided the Olympics at the 1952 24 years to win its first medal. (เข้าร่วมใน) 3. For centuries it has been assumed that women will stay home and the their husbands go out and work. (ดูแล) 4. The current economic situation makes people become worried as much as they did. (กับวลเกี่ยวกับ)	ch item.  ow morning. Don't be late! (50)  Helsinki Games and it took the country  ke care the children while  money. They are not spending
PRODUCTIVE TASK  Directions: In each item, write one word that is appropriat the line provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. Item provided is a clue in each item provided. Item provided is a clue in each item provided. Item provided is a clue in each item provided. Item provided is a clue in each item provided. Item provided is a clue in each item provided. Item provided is a clue in each item provided. Item provided in the Olympics at the 1952 and the Olympics at the 1952 and the Item provided is a clue in each item provided. Item provided in the Olympics at the 1952 at the Olympics at the Olympics at the 1952 at the Olympics at the Olympics at the 1952 at the Olympics at the Olympics at the 1952 at the Olympics at the Olympics at the 1952 at the Olympics at the Olympics at the 1952 at the Olympics at the Olympics at the 1952 at the Olympics at the Olympics at the 1952 at the Olympics at the 1952 at the Olympics at the Olympics at the Olympics at the 1952 at the Olympics	ch item.  ow morning. Don't be late! (50)  Helsinki Games and it took the country  ke care the children while  money. They are not spending
PRODUCTIVE TASK  Directions: In each item, write one word that is appropriat the line provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. Item provided in the Olympics at the 1952 24 years to win its first medal. (เข้าร่วมใน)  3. For centuries it has been assumed that women will stay home and tatheir husbands go out and work. (ดูแล)  4. The current economic situation makes people become worried as much as they did. (กับวลเกี่ยวกับ)  5. I am not capable	ch item.  ow morning. Don't be late! (รอ) Helsinki Games and it took the country  ke care the children while money. They are not spending  กมารถ) i for only two days. (แตกตางจาก)
PRODUCTIVE TASK  Directions: In each item, write one word that is appropriat the line provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. The Olympics at the 1952 at the Olympics at the Olympics at the 1952 at the Olympics at the Olympics at the 1952 at the Olympics at the Olympics at the 1952 at the Olympics at the Olympics at the Olympics at the 1952 at the Olympics at the Olympics at the Olympics at the 1952 at the Olympics at the	ch item.  ow morning. Don't be late! (รอ) Helsinki Games and it took the country  ke care the children while money. They are not spending  ามารถ) i for only two days. (แตกต่างจาก) warming. (ดำเนินการ)
PRODUCTIVE TASK  Directions: In each item, write one word that is appropriat the line provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. The clyptopic at the Olympics at the 1952 and the Olympics at the Olympics at the 1952 and the Olympics at the Olympics at the 1952 and the Olympics at the Olympics at the Olympics at the 1952 and the Olympics at the Olympics at the Olympics at the Olympics at the 1952 and the Olympics at the	ch item.  ow morning. Don't be late! (รอ) Helsinki Games and it took the country  ke care the children while money. They are not spending  กมารถ) is for only two days. (แตกต่างจาก) warming. (ดำเนินการ) calories than we eat. (ลดน้ำหนัก)
PRODUCTIVE TASK  Directions: In each item, write one word that is appropriat the line provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. The class participated the Olympics at the 1952 the Olympics at the Olympics at the 1952 the Olympics at the 1952 the Olympics at the Olympics at the Olympics at the Olympics at the 1952 the Olympics at the Olympics at the Olympics at the Olympics at the 1952 the Olympics at the Olympics at the Olympics at the Olympics at the 1952 the Olympics at the 1952 the Olympics at the Ol	ch item.  ow morning. Don't be late! (รอ) Helsinki Games and it took the country  ke care the children while money. They are not spending  nมารถ) is for only two days. (แตกต่างจาก) warming. (ดำเนินการ) calories than we eat. (สดน้ำหนัก) (ระดมทุน)
PRODUCTIVE TASK  Directions: In each item, write one word that is appropriat the line provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. The Olympics at the 1952 at the Olympics at the Olympics at the Olympics at the 1952 at the Olympics at th	ch item.  ow morning. Don't be late! (รอ) Helsinki Games and it took the country  ke care the children while money. They are not spending  nมารถ) is for only two days. (แตกต่างจาก) warming. (ดำเนินการ) calories than we eat. (สดน้ำหนัก) (ระดมทุน)
PRODUCTIVE TASK  Directions: In each item, write one word that is appropriat the line provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. Item provided in the Olympics at the 1952 at the Olympics at the Olympics at the 1952 at the Olympics at the 1952 at the Olympics at the Olympics at the 1952 at the Olympics at the Olympics at the 1952 at the Olympics at the	ch item.  www morning. Don't be late! (รอ) Helsinki Games and it took the country  ke care the children while money. They are not spending  nมารถ) is for only two days. (แตกต่างจาก) warming. (ดำเนินการ) calories than we eat. (ลดน้ำหนัก) (ระดมทุน) ive life than I do. She
PRODUCTIVE TASK  Directions: In each item, write one word that is appropriat the line provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. There is a Thai translation as a clue in each item provided. The Olympics at the 1952 at the Olympics at the Olympics at the Olympics at the 1952 at the Olympics at th	ch item.  www morning. Don't be late! (รอ) Helsinki Games and it took the country  ke care the children while money. They are not spending  กมารถ) is for only two days. (แตกต่างจาก) warming. (ดำเนินการ) calories than we eat. (ลดน้ำหนัก) (ระดมทุน) ive life than I do. She  d. (วัยชรา)

#### **APPENDIX C**

# TARGET COLLOCATIONS

<b>Grammatical Collocations</b>		Lexical Collocations			
Verb-preposition Collocations	Adjective-preposition Collocations	Verb-noun Collocations	Adjective-noun Collocations		
1. ask for (Chorbwhan & McLellan, 2016)	1. afraid of	1. make a decision (Gyllstad, 2007)	1. extended family		
2. depend on (Chorbwhan & McLellan, 2016)	2. good at	2. take responsibility	2. fast food (Bueraheng, 2014)		
3. contribute to (Chorbwhan & McLellan, 2016)	3. proud of (Mongkolchai, 2008)	3. take time	3. prime time		
4. participate in	4. capable of	4. lose weight (Gyllstad, 2007)	4. full time (Bueraheng, 2014)		
5. take care of (Phoocharoensil, 2013)	5. different from	5. raise money (Chorbwhan & McLellan, 2016)	5. old age (Chorbwhan & McLellan, 2016)		
6. wait for (Chorbwhan & McLellan, 2016)	6. worried about	6. take action (Chorbwhan & McLellan, 2016)	6. social life (Chorbwhan & McLellan, 2016)		
7. add to (Chorbwhan & McLellan, 2016)	7. close to	7. commit a crime (Chorbwhan & McLellan, 2016)	7. foreign country (Chorbwhan & McLellan, 2016)		
8. agree with (Chorbwhan & McLellan, 2016)	8. experienced in (Mongkolchai, 2008)	8. give birth (Gyllstad, 2007)	8. heavy rain (Chorbwhan & McLellan, 2016)		
9. apologize for (Yumanee, 2011)	9. familiar with	9. gain weight	9. heavy traffic (Gyllstad, 2007)		
10. believe in (Chorbwhan & McLellan, 2016)	10. generous of (Yumanee, 2011)	10. make a mistake (Chorbwhan & McLellan, 2016)	<ul><li>10. high standard</li><li>(Chorbwhan &amp; McLellan,</li><li>2016)</li></ul>		
11. belong to (Chorbwhan & McLellan, 2016)	11. inconsistent with (Mongkolchai, 2008)	11. pay a visit (Gyllstad, 2007)	11. ill health (Chorbwhan & McLellan, 2016)		
12. differ from	12. indifferent to (Mongkolchai, 2008)	12. spend time (Bueraheng, 2014)	12. middle class (Bueraheng, 2014)		
13. happen to (Chorbwhan & McLellan, 2016)	13. impressed by/with (Phoocharoensil, 2013)	13. succeed in (Yumanee, 2011)	13. poor quality (Chorbwhan & McLellan, 2016)		
14. listen to (Phoocharoensil, 2013)	14. parallel to (Yumanee, 2011)	14. take place (Chorbwhan & McLellan, 2016)	14. serious problem (Chorbwhan & McLellan, 2016)		
15. pay for (Chorbwhan & McLellan, 2016)	15. tired of (Phoocharoensil, 2013)	15. tell the truth (Gyllstad, 2007)	15. strong coffee (Bueraheng, 2014)		

# **ABOUT THE AUTHOR**

Kietnawin Sridhanyarat is a lecturer of English at the Faculty of Archaeology, Silpakorn University, Thailand. He graduated with a Master's Degree in Teaching English as a Foreign Language from Thammasat University, Thailand. His research interests include second language acquisition, English phonetics and segmental phonology, vocabulary acquisition, and second language writing.