



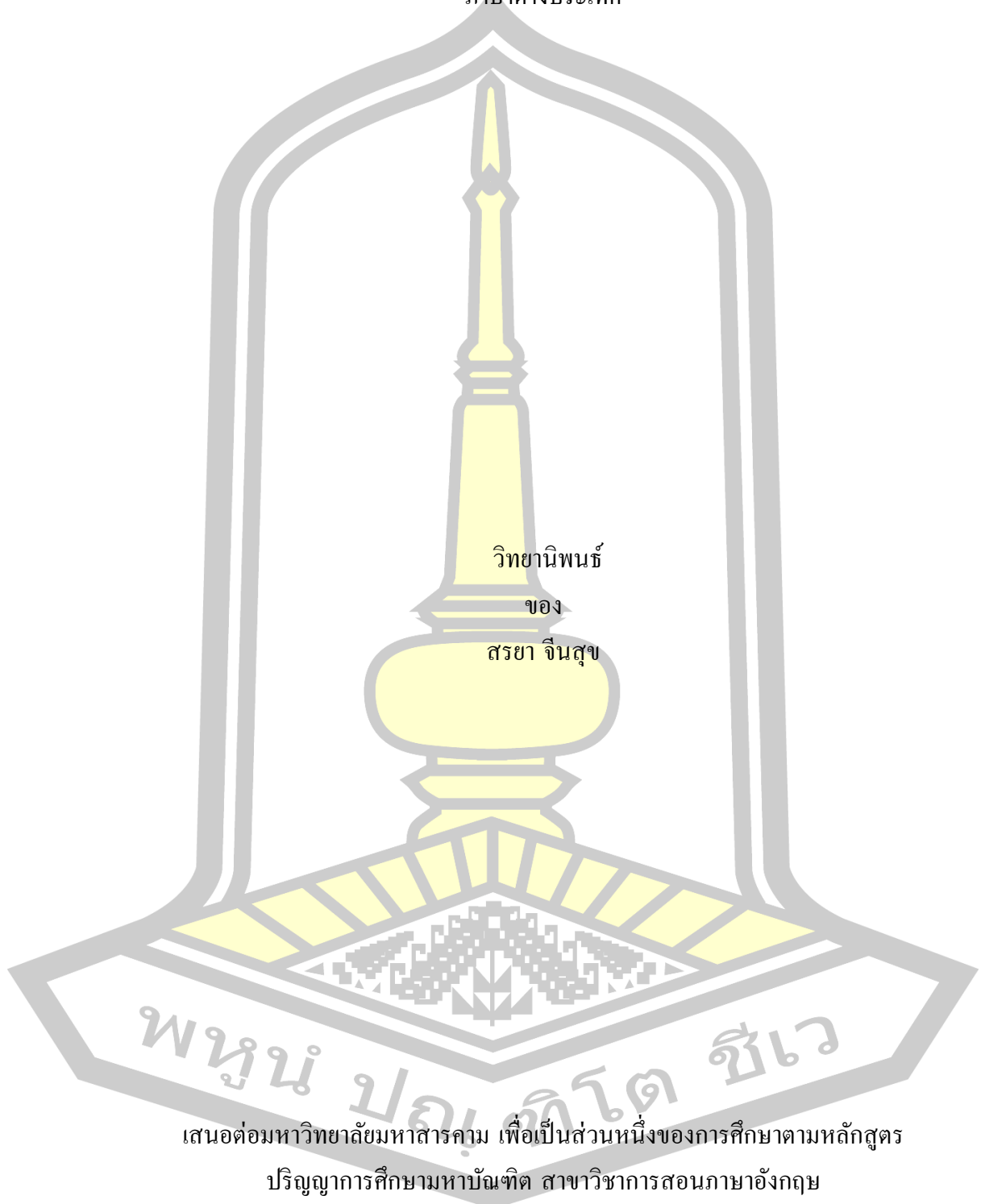
An Investigation of Thai EFL High School Learners' English Collocations

Soraya Jeensuk

A Thesis Submitted in Partial Fulfillment of Requirements for
degree of Master of Education in English Language Teaching
September 2020

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The examining committee has unanimously approved this Thesis,
submitted by Miss Soraya Jeensuk , as a partial fulfillment of the requirements for the
Master of Education English Language Teaching at Mahasarakham University

Examining Committee

Chairman

(Pilanut Phusawisot , Ph.D.)

Advisor

(Asst. Prof. Apisak Sukying , Ph.D.)

Committee

(Nuchsara Choksuanup Thongsan ,
Ph.D.)

External Committee

(Assoc. Prof. Supakorn
Phoocharoensil , Ph.D.)

Mahasarakham University has granted approval to accept this Thesis as a
partial fulfillment of the requirements for the Master of Education English Language
Teaching

(Assoc. Prof. Nittaya Wannakit , Ph.D.) (Assoc. Prof. Krit Chaimoon , Ph.D.)
Dean of The Faculty of Humanities and Social Sciences Dean of Graduate School

พหุบัณฑิต ชีว

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AUTHOR	Soraya Jeensuk		
ADVISORS	Assistant Professor Apisak Sukying , Ph.D.		
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ABSTRACT

Vocabulary knowledge is an important tool for second language (L2) learners, and learners need to know word combinations or collocations to perform effective communications. Therefore, this study investigated Thai high school learners' receptive and productive knowledge of English collocations. Three hundred and fourteen participants, who voluntarily participated in the study, were given four different measures of receptive and productive knowledge of English collocations. The tests of collocational knowledge were methodologically designed and validated specifically for the current study to measure the participants' receptive and productive collocations in English. Both descriptive and inferential statistics were used to analyze the quantitative data. Correlational analysis was also used to examine the relationship between receptive and productive knowledge of English collocations. The results showed that Thai EFL high school learners had relatively poor knowledge of English collocations. Specifically, the participants performed better on receptive collocational tasks than productive collocational ones. Indeed, Thai EFL high school learners' receptive knowledge of grammatical collocations is acquired first, followed by receptive knowledge of lexical collocations, productive knowledge of lexical collocations, and finally, productive knowledge of grammatical collocations. The correlational analysis also revealed that receptive and productive collocational knowledge were interrelated. Taken together, these findings are consistent with previous studies that, like vocabulary, receptive collocational knowledge is acquired before productive collocational knowledge and the development of L2 collocations is complex and incremental. The current study also provides insights into vocabulary acquisition and development along the receptive and productive continuum. Future research would benefit from longitudinal studies designed to examine more precisely this developmental continuum. Such research would provide additional important pedagogical and theoretical implications.

Keyword : English collocations, Lexical collocations, Grammatical collocations, Receptive knowledge, Productive knowledge

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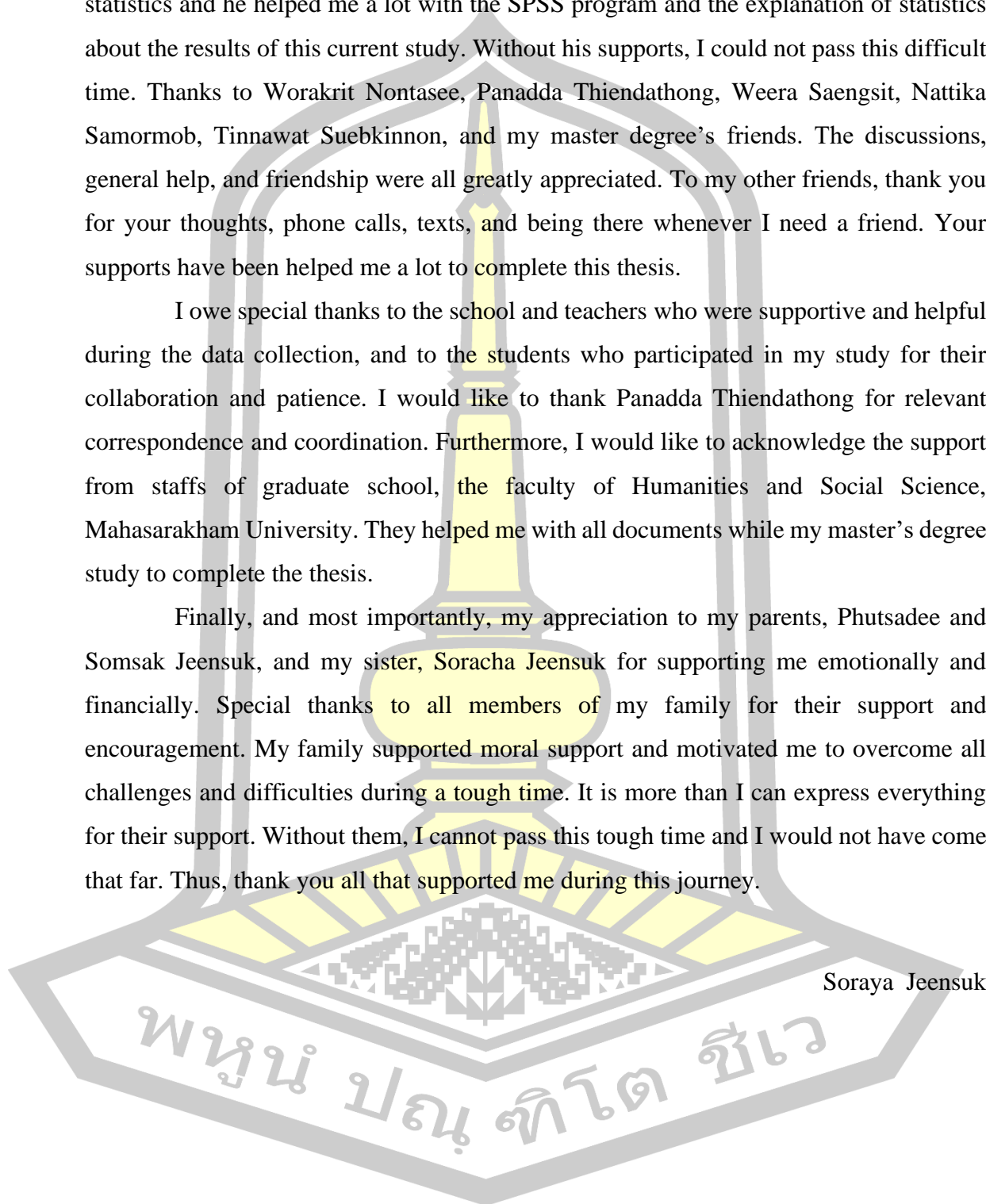


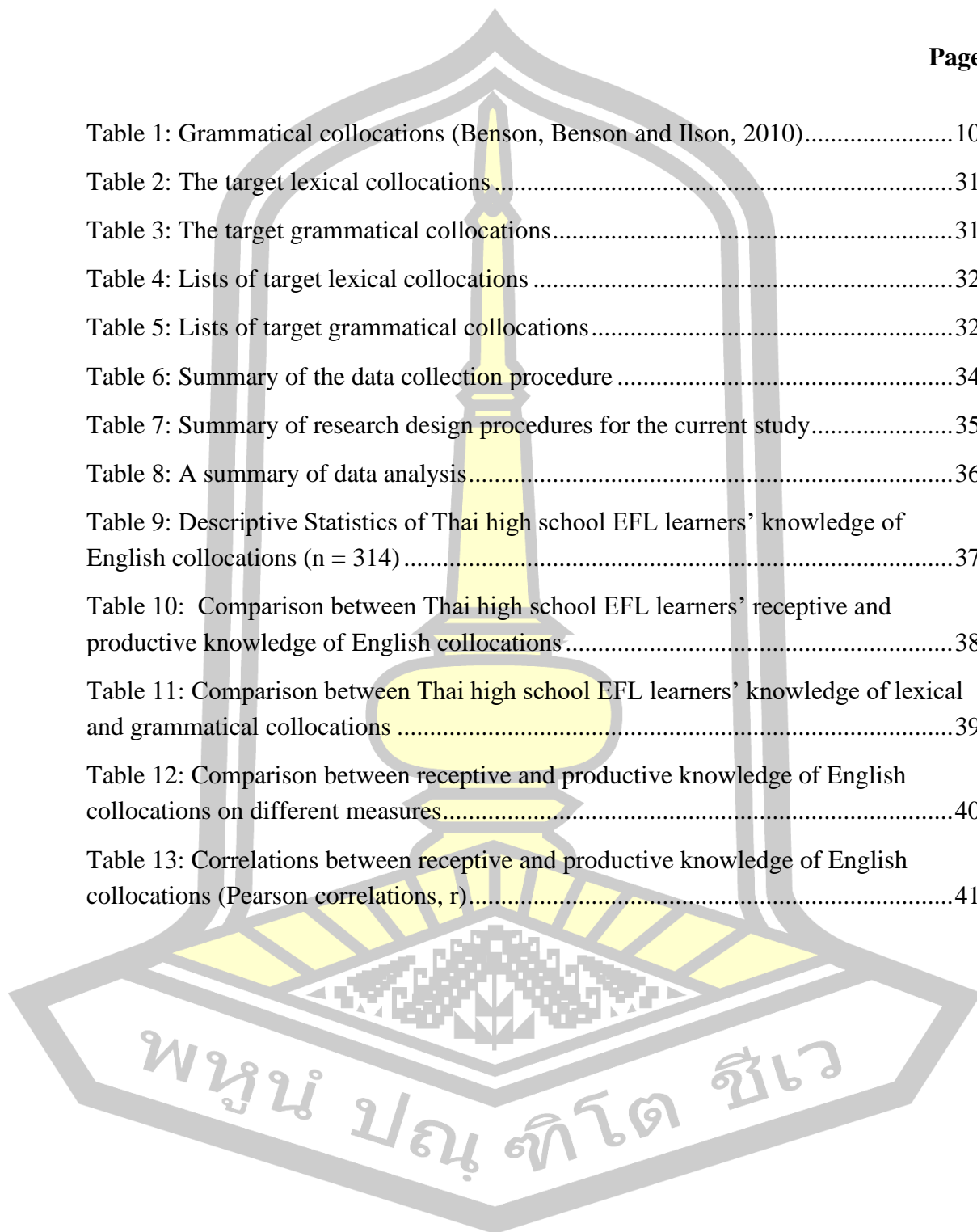
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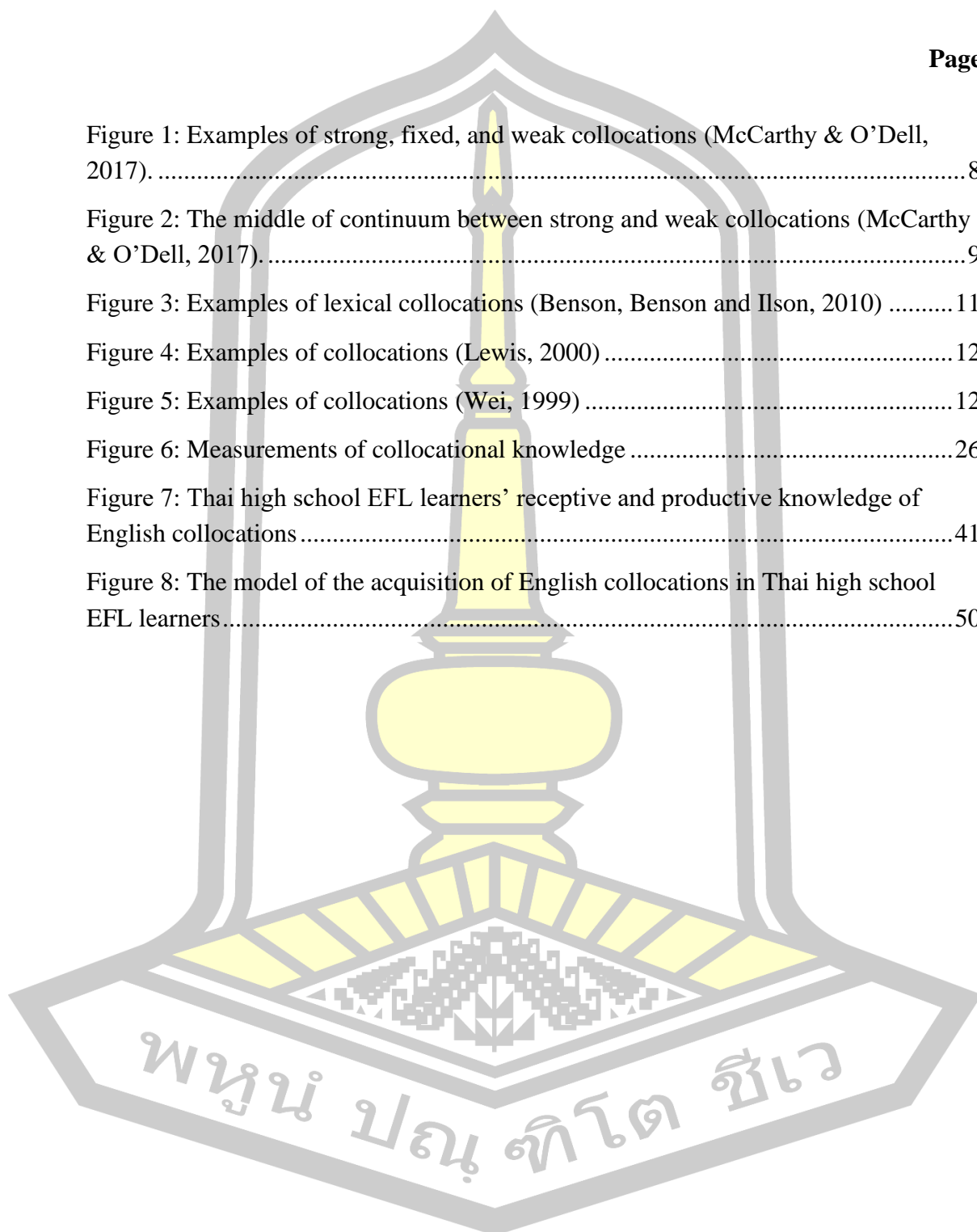
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CHAPTER I

INTRODUCTION

1.1 Background of the study

Vocabulary knowledge is an important tool for second language (L2) learners. With limited second language (L2) vocabulary knowledge, learners may not be able to perform effective communication (Alqahtani, 2015). By contrast, learners who have a large vocabulary size may be able to understand new ideas and concepts more quickly than those with limited vocabulary (Sedita, 2005). Moreover, learners must know and select appropriate vocabulary to convey meaning fluently and naturally (Krashen & Terrell, 1983).

In vocabulary acquisition, collocations are often defined as a combination of words associated together with each other (e.g., Firth, 1957; McCarthy & O'Dell, 2017). Others have defined collocations as a chunk of words that have syntagmatic relations and are usually found together (e.g., Benson, Benson & Ilson, 2010; Lewis, 1993). To illustrate, *heavy rain* and *strong rain* are both syntactically correct, but *heavy* is an appropriate collocation that is used with *rain* (Benson, Benson & Ilson, 2010). As such, collocations often occur in spoken and written English and can facilitate the human thinking process and allow successful and fluent communication (Hill, 2000).

In contexts, learners must know collocations to use a language naturally (Karoly, 2005). They need to acquire English collocations rather than single English words (Celce-Murcia, Brinton, Snow & Bohlke, 2013). It can improve a learner's language use and develop fluency and native-like selection. Knowing collocations can help learners to reduce cognitive effort by decreasing processing time that learners think about the word, and helping words to be immediately available in their minds to use. Also, collocations can be beneficial for language learners and can help native speakers to understand the learners efficiently. Knowing collocations may also support other language issues, such as pronunciation (Nation & Shin, 2008).

L2 vocabulary research has shown that English collocations are particularly difficult for learners to master (Nesselhauf, 2003). When collocations were compared to general vocabulary, learners are difficult to acquire because of adequate exposure and an

inability to understand the meaning in each context (Nesselhauf, 2003; Tran, 2012). Most English language learners, at all proficiency levels, face the collocations' problems (e.g., Hsu & Chiu, 2008; Ying, 2009). For example, research on English collocations indicates that both English majors and non-English majors make errors with grammatical collocations, especially preposition + noun, and English majors show significant errors on lexical collocations, especially verb + noun (Ying, 2009).

In a Thai context, research on collocations in English is viewed as one of the most neglected areas in vocabulary learning and teaching (El-Dakhs, 2015; Sridhanyarat, 2018). One study showed that university learners had difficulty with receptive and productive collocational proficiency tests (Detdamrongpreecha, 2014). More specifically, learners were able to identify which words were nouns, adjectives, or verbs, but they could not use them effectively in context. Another study investigated EFL regular and English program learners' knowledge of collocations, especially adjective + noun collocations (Suwitchanphan & Phoocharoensil, 2014). The findings showed that the regular program learners had a higher score than the English program learners in the gap-filling test. Based on the collocation selection test, there was no significant difference between the regular program and the English program. According to the descriptive written task, regular program learners were more likely than the English program learners to use adjective + noun collocations. These findings suggest that more research on English collocations is required to inform pedagogical practice.

Moreover, the current Thai national curriculum states that high school learners need to know essential English collocations for daily communication. In this regard, the national test for high school graduates also includes collocations in English on The Ordinary National Educational Test (O-NET), which all high school students are required to sit before graduation (MoE, 2019). However, the overall performance on the O-NET exam for high school graduates is relatively low (NIETS, 2019). The lack of collocation knowledge in Thai high school students may account for this poor performance on the English national exam. Also, it is difficult to explain the processes of acquisition for the different aspects of English collocational knowledge. This is because receptive and productive is complex, as it is obviously that learners do not acquire all of the knowledge components in a uniform manner (Schmitt, 2010).

Furthermore, little effort has been made to examine collocation knowledge in Thai EFL contexts, particularly in high school students. As such, the current study will investigate receptive and productive knowledge of grammatical collocations in Thai high school learners. Understanding high school students' levels of collocational knowledge will provide a platform for pedagogical practices and the development of vocabulary knowledge.

1.2 Purpose of the study

This current study focused on learners' receptive and productive knowledge of English collocations. It focused on three types of lexical collocations, which were adjective + noun, verb + adverb, and verb + noun, and grammatical collocations, which were preposition + noun, noun + preposition, and verb patterns. The aim of the current study was to investigate Thai high school EFL learners' receptive and productive knowledge of English collocations. Specifically, this study addressed the following research questions:

1. What is Thai high school EFL learners' receptive and productive knowledge of English collocations?
2. Is there any relationship between receptive and productive knowledge of English collocations in Thai high school EFL learners?

1.3 Scope of the study

This current study focused on receptive and productive knowledge of English collocations in Thai high school EFL learners in the northeastern of Thailand. There were four tests in this current study. Two tests, namely the COLLEX test and the COLLMATCH test, were used to assess receptive knowledge of collocations. Also, two tests, namely the Collocation recall test and the CONTRIX test, were used to assess productive knowledge of collocations. The COLLEX test and the Collocation recall test focused on three types of lexical collocations, which were adjective + noun, verb + adverb, and verb + noun. The COLLMATCH test and the CONTRIX test were focused on three types of grammatical collocations, which were preposition + noun, noun + preposition, and verb patterns. These lexical and grammatical collocations were selected because they were used the most frequently in the Thai context and the O-NET

test (NIETS, 2019), and are often used in everyday English communication (Nesselhauf, 2003).

1.4 Significance of the study

The current study contributed to the area of vocabulary learning and use. Specifically, it provided insight into the nature of collocation acquisition and its role in vocabulary development and language use. This investigation constituted a guideline for language teaching. On language teaching, this study provided the insight of English collocations and teachers had the guideline to teach English collocations as a whole item to promote collocational knowledge. Also, this investigation gave the guideline for English curriculum designs, EFL textbook designs and planning for language classrooms that English collocations should be emphasized to improve a learners' language use. In addition, the current study yielded an indicative basis for further investigations into the area of vocabulary acquisition.

1.5 Definitions of terms

1.5.1 English collocations refer to groups of words that are frequently seen together. For example, *do* and *homework* go together, and *tall* goes with *boy* or *girl*, and *high* with *mountain* (McCarthy & O'Dell, 2005). Also, linguists have proposed certain criteria to classify collocations into grammatical and lexical collocations, based on the word class of the combining words (Benson, Benson & Ilson, 2010; Lewis, 2000). This current study mainly focused on only three types of lexical collocations, namely adjective + noun, verb + adverb, and verb + noun and three types of grammatical collocations, namely preposition + noun, noun + preposition, and verb patterns.

1.5.2 Thai EFL high school learners refer to Thai learners participated in the current study who learn English as a foreign language and study in grade 10 to grade 12 of high school with in northeastern Thailand.

1.6 Organizations of the study

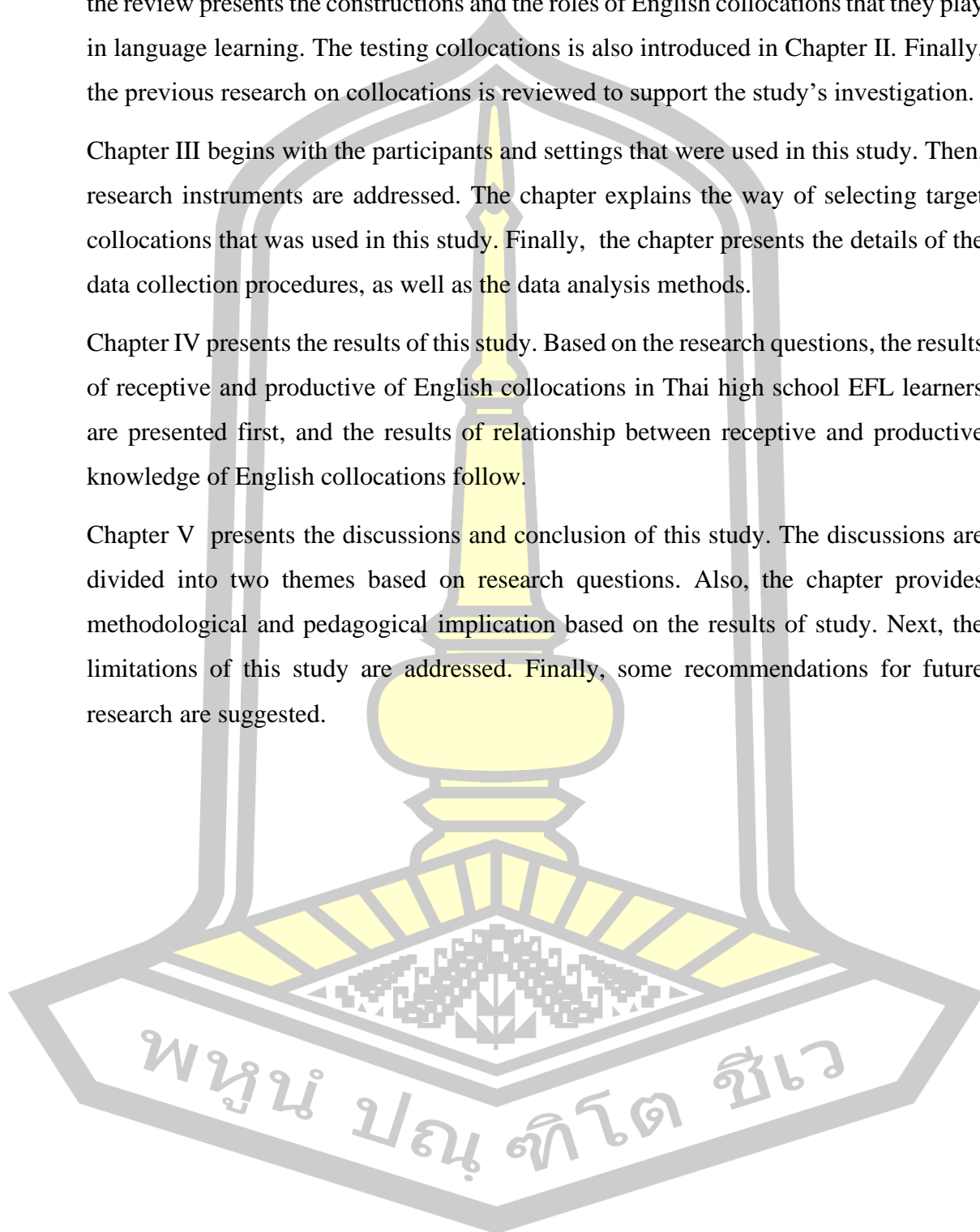
The thesis is organized as follows. Chapter I describes the background of the study, the purpose of the study, as well as the research questions. Then, the scope and the significance of the study are presented. Also, the definitions of term used in this study are explained.

Chapter II, the literature review, explains theoretical framework on collocations. Next, the review presents the constructions and the roles of English collocations that they play in language learning. The testing collocations is also introduced in Chapter II. Finally, the previous research on collocations is reviewed to support the study's investigation.

Chapter III begins with the participants and settings that were used in this study. Then, research instruments are addressed. The chapter explains the way of selecting target collocations that was used in this study. Finally, the chapter presents the details of the data collection procedures, as well as the data analysis methods.

Chapter IV presents the results of this study. Based on the research questions, the results of receptive and productive of English collocations in Thai high school EFL learners are presented first, and the results of relationship between receptive and productive knowledge of English collocations follow.

Chapter V presents the discussions and conclusion of this study. The discussions are divided into two themes based on research questions. Also, the chapter provides methodological and pedagogical implication based on the results of study. Next, the limitations of this study are addressed. Finally, some recommendations for future research are suggested.



CHAPTER II

LITERATURE REVIEW

This chapter defined the theoretical framework of collocations and described the characteristics and types of collocations as well as the roles of collocations in language learning and how to assess knowledge of collocations. Finally, this chapter provided the rationale and methods for the current study, including the measurement of receptive and productive knowledge of English collocations.

2.1 Constructions of collocations

Collocation, first defined by Firth (1957), is a group of associated words. In general, words are not combined randomly and, even though words must follow specific grammar and syntax, they also have preferred partners. Some of these associations are acceptable to use, but the others are not. For example, it is suitable to say *strong coffee* in English, but people do not say *powerful coffee*. Also, *heavy rain* and *strong rain* are both syntactically correct, but *heavy* is an appropriate collocation that is used with *rain* (Benson, Benson & Ilson, 2010).

Moreover, many noted scholars in the field defined the concept and classifications of collocations in order to better comprehend. Collocations are therefore a group of words that normally occur together (Lewis, 1993). Hill (2000) also defines collocation as words that can combine predictably. Some collocations are fixed and one can guess the collocations easily from component words. For example, the word *shrug* is typically followed by *one's shoulder*. As such, to *shrug one's shoulder* can be defined as a strong collocation. On the other hand, some collocations are too general, and are considered weak collocations. For instance, the word *good* can be associated with many nouns such as *a good doctor*, *a good girl*, *a good way*, and many more (Hill, 2000).

Furthermore, McCarthy and O'Dell (2017) state that collocations are groups of words that are frequently observed together. For example, *do* and *homework* are often paired, *tall* goes with *boy* or *girl*, and *high* goes with *mountain*. While collocations seem natural for native speakers, they require much effort to learn in non-native speakers. Some combinations of words are incorrect, but can be understood. For instance, *do a mistake* is likely to be understood by English speakers. However, a fluent English speaker will say *make a mistake* instead.

Besides, collocations have semantic and syntactic aspects. Some of collocations have direct meanings, but others have indirect meanings (Choueka, 1988). As such, collocations have the characteristic of non-compositionality (Benson, 1989). That is, the meaning of the collocation is not necessarily directly related to the meanings of its composition words. Indeed, some collocations have connotations that are not predictable from the individual words such as *look after* or *kick the bucket*. *White woman*, *white wine*, and *white hair* is another example of non-compositionality because the same word *white* refers to completely different colors.

Another characteristic of collocations is non-substitutability. That is, synonyms cannot replace collocations. For example, *white wine* cannot be substituted by *yellow wine*, although *yellow* is the color that perhaps better describes the color of *white wine*. Also, *a business trip* cannot be changed into *a business journey* because *journey* cannot be collocated with *business* (Benson, 1989; Yang & Hendricks, 2004). Moreover, collocations are non-modifiable. Most collocations cannot be altered freely with additional words or grammar aspects. For instance, the phrase *got a frog in one's throat* cannot be changed to *got an ugly frog in one's throat*. Even though *ugly* could be added to the word *frog* to describe the frog in other contexts, it cannot be added in this phrase. Moreover, *bed and breakfast* cannot be reversed to *breakfast and bed* nor can *fish and chips* be changed to *chips and fish* (Benson, 1989). Additional words cannot be inserted into collocations (Yang and Hendricks, 2004). For instance, it is uncommon to put more words into *bread and butter*; indeed, *bread, cheese, and butter* sounds strange to native English speakers. Finally, some collocations are highly predictable, such as *more or* is likely to be completed by *less*.

Linguists have proposed certain criteria to classify collocations into strong, unique, or fixed, and weak collocations (McCarthy & O'Dell, 2017). Strong collocations are words that fully collocate with each other. They contain only a few words that can collocate. For instance, the adjective *rancid* can collocate with only a few words such as *butter* and *oil*.

Fixed collocations refer to collocations that cannot be substituted by other words. These types of collocations are predictable because they cannot be replaced or changed by other words. However, the meaning of these types of collocations cannot be predicted

from the individual words. Thus, they are called idioms. For example, the verb *shrug* can collocate with *one's shoulder*. It can only be used with *shoulder* and not with other parts of the body (Hill, 2000). Another example is the sentence “I was walking *to and fro*.” The meaning of this sentence is walking in one direction, and then walking in the opposite direction and repeating a number of times. Other words cannot be changed for *to* or *fro* or *and* in this collocation (McCarthy & O’Dell, 2017).

Weak collocations words that have many choices of words with which to collocate, and they are easy to predict. For example, the word *green* can be collocated with many words such as *light green*, *dark green*, *bright green*, *lime green*, *olive green*, and so on. The word *green* is not fixed, and it can describe many shades of green (Hill, 2000). Another example is the word *broad*. One can say *a broad agreement*, *a broad smile*, *a broad accent*, and so on. Examples of strong, fixed, and weak collocations are shown in Figure 1.

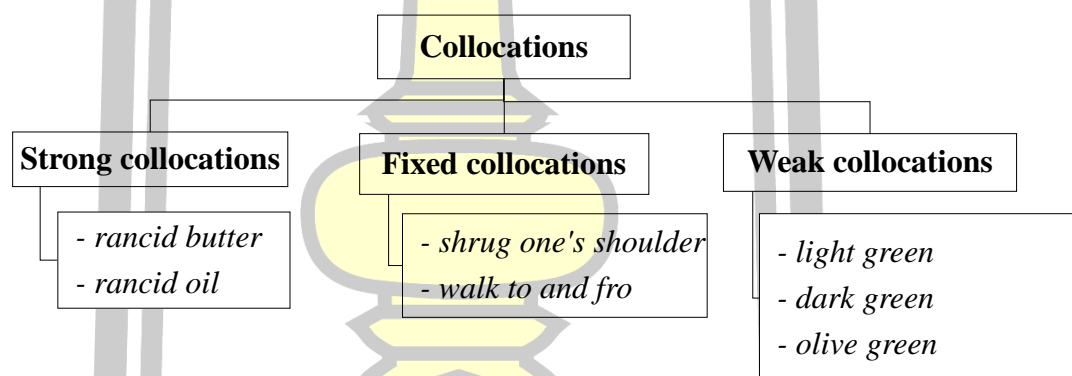


Figure 1: Examples of strong, fixed, and weak collocations (McCarthy & O’Dell, 2017).

Strong and weak collocations are classified based on collocational strength. Most collocations are between strong and weak collocations. For instance, the adjective *picturesque* (formal adjective) can collocate with *village*, *location*, and *town* (McCarthy & O’Dell, 2017). Medium-strength collocations are when a word that collocates with a greater frequency than weak collocations such as *do laundry*, *hold the meeting*, *carry out the study*. Learners may already know the individual word, but they do not know the meaning of the whole phrase (Hill, 2000). The middle of the continuum between strong and weak collocation is described in Figure 2.

stronger ← ————— → weaker

inclement weather

picturesque village
picturesque location

broad hint
broad accent
broad smile

Figure 2: The middle of continuum between strong and weak collocations (McCarthy & O'Dell, 2017).

Collocations are separated into grammatical and lexical collocations, based on the word class of the combining words (Benson, Benson & Ilson, 2010; Lewis, 2000). Grammatical collocations are collocations that combine a content word (a noun, a verb, or an adjective) and a function word, which is usually a preposition. Sometimes, collocations are related to the grammatical structure (Baker 1996; Benson, Benson & Ilson, 2010; Lewis, 2000). *At night*, *extend to*, *good at*, *fall for*, *to be afraid* are all examples of grammatical collocations that are lexicalized as single units whose meanings are formulaic and whose co-occurrence is highly likely. Grammatical collocations can be idiomatic because their meanings are different from the literal meaning of those words. For example, *run out of* (to reach the end of stock) or *put up with* (tolerate) (Bahns, 1993).

According to Benson, Benson, and Ilson (2010), there are eight categories of grammatical collocations: noun + preposition, noun + to infinitive, noun + that clause, preposition + noun, adjective + preposition, predicate adjective + to inf., adjective + that clause, and 19 English verb patterns. Examples of grammatical collocations are shown in Table 1.

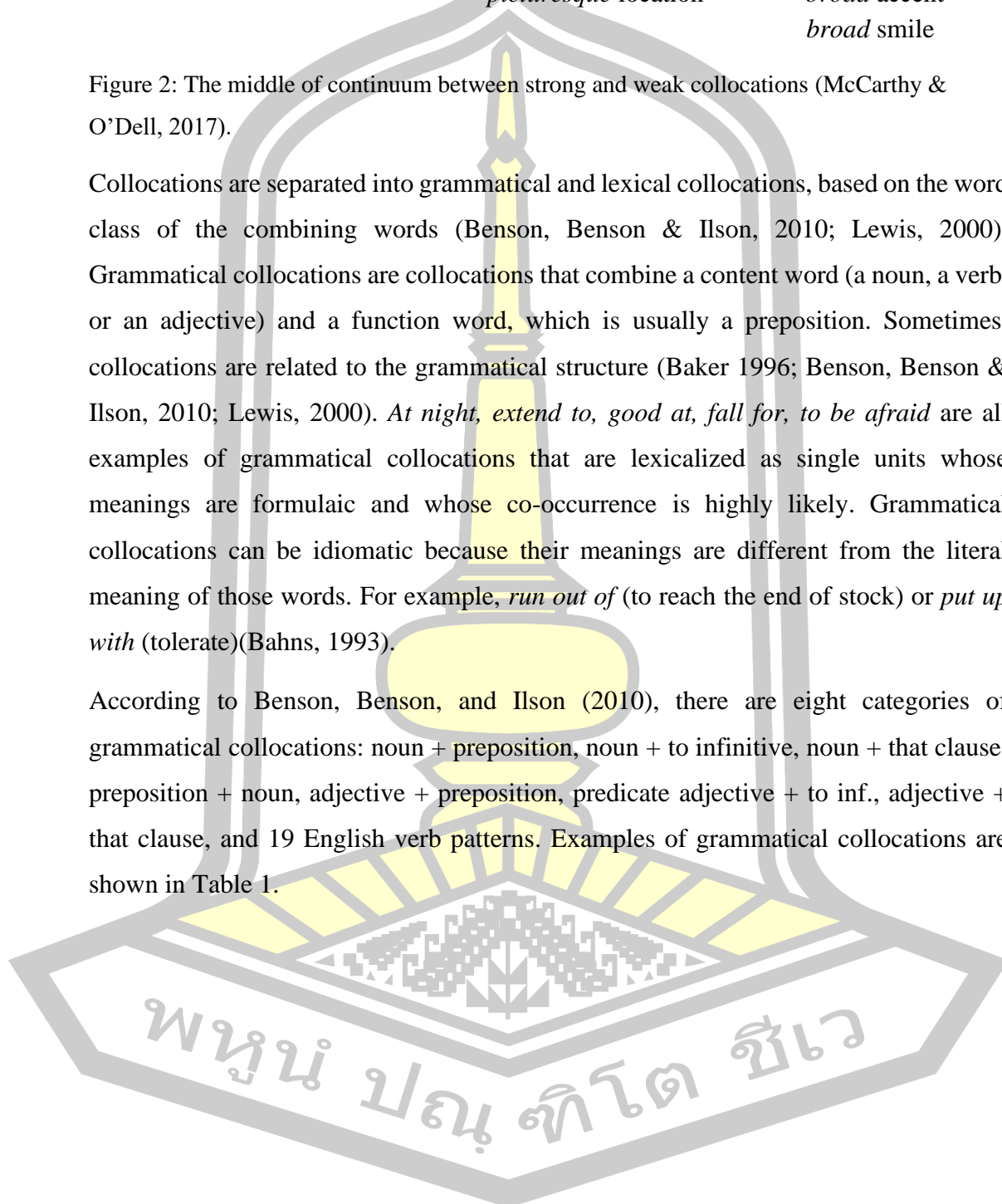


Table 1: Grammatical collocations (Benson, Benson and Ilson, 2010)

n. + prep.	<i>an increase in</i> <i>an emphasis on</i>	
n. + to inf.	He was <i>a fool to do it.</i>	
n. + that clause	We reached <i>an agreement that</i> she would represent us in court.	
prep. + n.	<i>on probation</i> <i>in advance</i>	
adj. + prep.	<i>familiar with</i> <i>aware of</i>	
predicate adj.+ to inf	It was <i>necessary to work.</i>	
adj + that clause	She was <i>afraid that</i> she would fail the exam.	
19 verb patterns	S V O to O or S V O O	He <i>sent a book to his brother.</i> He <i>sent his brother a book.</i>
	S V O to O	They <i>returned the book to her.</i>
	S V O for O or S V O O	She <i>bought a shirt for her husband.</i> She <i>bought her husband a shirt.</i>
	S V prep. O or S V O prep. O	He <i>came by train.</i> We <i>invited them to the meeting.</i>
	S V to inf.	He <i>decided to come.</i>
	S V inf. without to	We <i>must work.</i>
	S V V-ing	She <i>quit smoking.</i>
	S V O to inf.	We <i>forced them to leave.</i>
	S V O inf. without to	We <i>let the children go to the park.</i>
	S V O V-ing	We <i>found the children sleeping</i> on the floor.
	S V a possessive (pronoun or n.) v-ing	Please <i>excuse my waking you</i> so early.
	S V (O) that-clause	She <i>believed that</i> her sister would come.
	S V O to be complement	We <i>considered her to be well trained.</i>
	S V O C	We <i>found them interesting.</i>
	S V O O	The police <i>finned him fifty dollars.</i>
	S V (O) adverbial	He <i>carried himself well.</i>
	S V (O) wh-word	He <i>wants what</i> I want.
	S(It) V O to inf. or S(It) V O that-clause	It <i>surprised me to learn of</i> her decision. It <i>puzzled me that</i> they never answered the telephone.
	S V C (adj. or n.)	She <i>became an engineer.</i> The flowers <i>smell nice.</i>

Lexical collocations are made up of two or more content words, which are nouns, verbs, adjectives, and adverbs. Lexical collocations are categorized into six types: adjective + noun, verb + noun, noun + noun, verb + adverb, adverb + adjective, and noun + verb. There are fixed and loose combinations in lexical collocations. The verb + noun lexical collocation is fixed because the choice of words is obvious, such as *commit a murder* or *break the law*. That is, the fixed structure is idiomatic, but their meanings can still be inferred from the elements of the collocations. Fixed collocations can also consist of lexical items that are related to expressions, and their meanings can be difficult to guess from their component words. For instance, *to scream blue murder* means to complain very loud or get away with murder. *Lay down the law* means someone who can do whatever they like. These fixed structures and meanings collocations are called idioms (Baker, 1996; Benson, Benson & Ilson, 2010; Lewis, 2000). Loose collocations are freely combined, such as *practice law* or *study law*, and their meaning can be drawn from their single words. Examples of lexical collocations are shown in Figure 3.

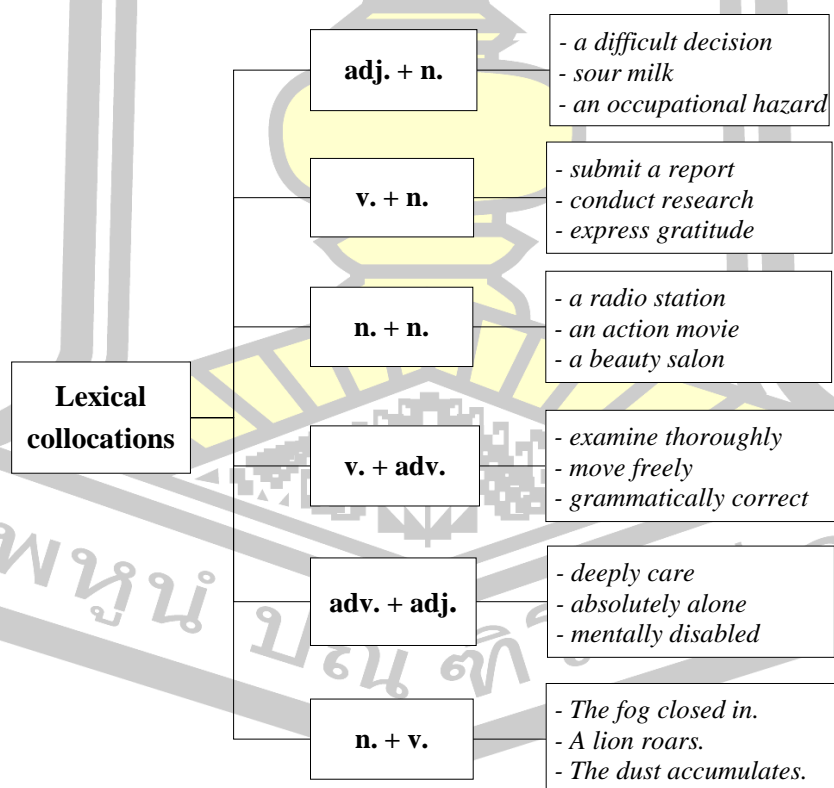


Figure 3: Examples of lexical collocations (Benson, Benson and Ilson, 2010)

Lewis (2000) classified collocations into other types, which are adverb + adjective, verb + adjective + noun, compound noun, binominal. Figure 4 shows examples of these types of collocations.

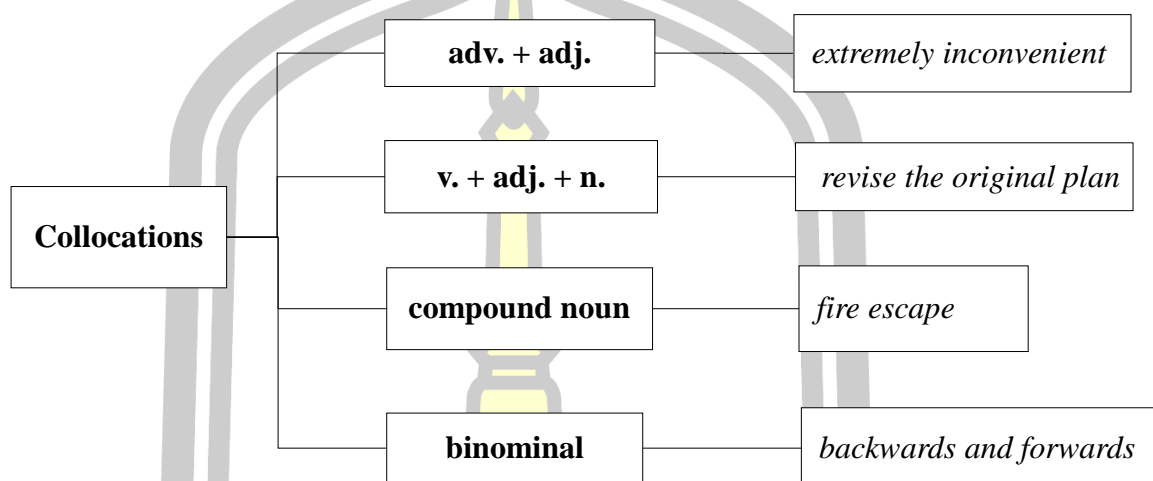


Figure 4: Examples of collocations (Lewis, 2000)

Wei (1999) also separated collocations into lexical collocations, grammatical collocations, and idiomatic expressions. Figure 5 illustrates these types of collocations.

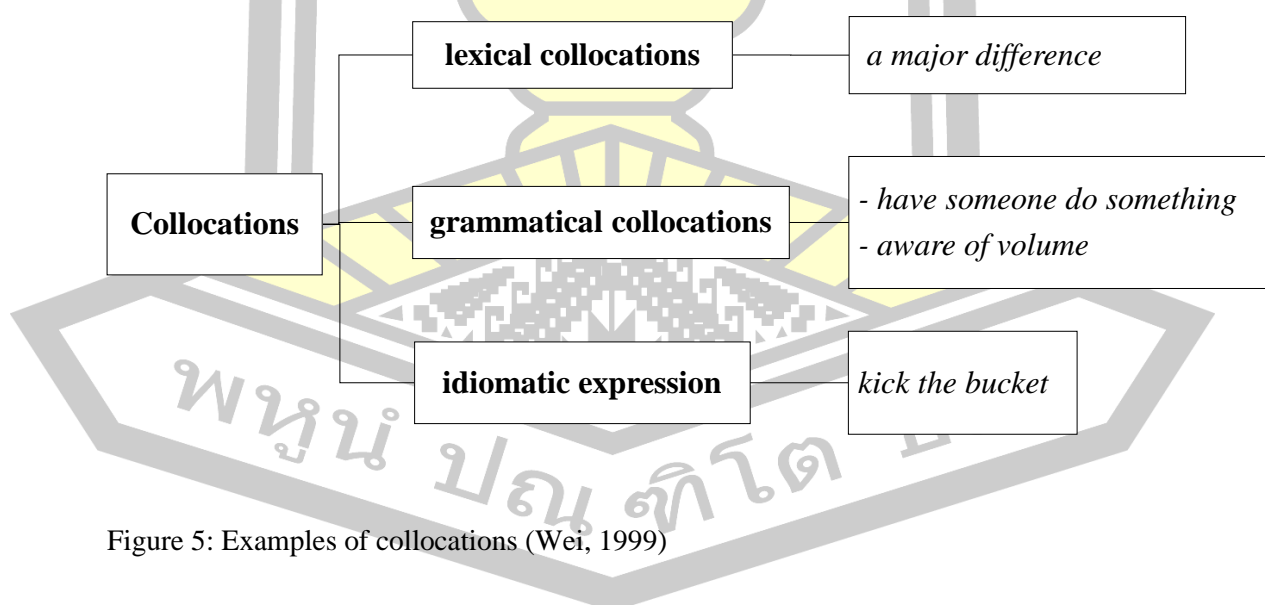


Figure 5: Examples of collocations (Wei, 1999)

Finally, Carter (1998) proposed four categories of collocations based on the strength of restriction. The first type is restricted collocations, which are fixed and unchangeable such as *pretty sure*, *dead drunk*. The second type is unrestricted collocations, which combine with several words freely, such as *take a look*, *take a holiday*, or *take a rest*. Semi-restricted collocations are those where it is not easy to substitute words, such as *harbor doubt*, *harbor grudges*, *harbor uncertainty*, and *harbor suspicion*. Finally, familiar collocations are those with words that collocate on a regular basis, such as *lukewarm reception*, *unrequired love*.

2.2 Roles of English collocations in language learning

Vocabulary is an essential aspect to allow learners to communicate fluently and accurately. Indeed, a single word is not sufficient for learners to communicate efficiently. Learners must know word combinations or collocations to use a language naturally (Károlyi, 2005). Deveci (2004) suggests that using collocations is related to the context. That is, learners must use collocations and expressions that are suitable for different contexts. For instance, the sentence *How is it going?* cannot be used with one's hierarchy at work or with older people. But it can be used to greet friends. Knowledge of connotation and formality is, therefore, necessary to allow the speaker to choose the appropriate collocations given the context, difference in status, and social distance between the speaker and the listener. Collocations can be beneficial for language learners and can help native speakers to understand the learner and may also support other language issues such as pronunciation.

Lewis (1997) stated that, in order to speak and write expressively and in a unique manner, one must possess an adequate knowledge of vocabulary. This knowledge is related to the knowledge of collocations, which are commonly used in daily communication. However, collocations are often arbitrary, and it is difficult to predict their meaning (Boonyasaguan, 2006). Failure to use the correct collocations is immediately apparent to native speakers (Lewis, 1997).

As mentioned above, research on explicit instruction of collocations revealed that most of the English major learners recognize that collocational knowledge is essential for communication (Wasuntarasophit, 2015). If the learner has good collocational knowledge, it gives the impression that the learner is well-educated and a natural

language user and that the learner has better professional language skills and is more effective at communication. Non-native speakers should, therefore, be explicitly taught collocations (McCarthy & O'Dell, 2017). Research indicates that collocations are difficult for non-native English speakers, even English major learners (Wasuntarasophit, 2015). While collocations seem natural for a native speaker, non-native speakers must make a targeted effort to learn this aspect of a language (Gyllstad, 2009). The explicit teaching of collocations could encourage learners to use English more accurately and raise awareness of using collocations (Wasuntarasophit, 2015).

Besides, collocations are used to speak or write naturally and accurately. For instance, it is natural that people say that smoking is *strictly forbidden* instead of smoking is *strongly forbidden*. Another example is that the uncle is *a very high man*. It probably means the uncle is two meters tall, or that he is in a high position of business or government. However, it seems to be unnatural and confusing to a native English speaker (McCarthy & O'Dell, 2017). Learning collocations provide learners with the opportunity to develop a range of English vocabulary and makes a sentence more precise and expressive. For example, *very cold* and *very dark* can be changed into *bitterly cold* and *pitch dark*. Furthermore, learning collocations can develop writing styles. For instance, the sentence *the poverty causes crime* can be changed into *poverty breeds crime*. *A big meal* can be substituted for *a substantial meal*. While the informal conversation may not necessarily benefit from these examples, writing will be improved (McCarthy & O'Dell, 2017).

Research on the construction of collocations in writing indicates that learners must receive more explicit collocation instruction and more opportunities to practice collocations (Namvar and Ibrahim, 2014). Collocations are essential to writing, and using them develops writing skills and communication skills more generally. Lackman (2011) also argues that teaching collocations can help learners understand the meaning of words. For instance, the verb *catch* can be understood easily when used in a collocation, such as *catch a ball*. However, when using the verb *catch* in collocations like *catch a bus*, *catch a cold*, and *catch your name*, it provides a different meaning to the literal meaning. This is referred to as delexicalized words, which means the collocation has little or no meaning by itself. Verbs are the part of speech that become

delexicalized the most, such as *get*, *take*, and *go*. Learners must, therefore, be able to understand delexicalized words because some collocations have different meanings from the words themselves.

Collocations can improve a learner's language use and develop fluency and native-like selection (Nation & Shin, 2008). Pawley and Syder (1983) suggest that learners should be taught collocations to develop their fluency. Knowing collocations can help learners to reduce cognitive effort by decreasing processing time that learners think about the word, and helping words to be immediately available in their minds to use. Native-like selection is another benefit to learning collocations. Often, there are many different ways to speak or write the same meaning. For instance, *let me off here* and *halt the car* can express the same meaning, but only the second one is strictly grammatical. However, *halt the car* does not sound correct to native speakers, even though the grammar is entirely correct. One problem for learners in the EFL context is focusing too much on grammar. Although EFL learners can produce a grammatically correct sentence, it may not sound correct to native speakers. For example, due to the translating from the first language, Korean learners are likely to say *artificial teeth* instead of *false teeth*, or *thick tea* instead of *strong tea*.

Collocations and idiomatic expressions are essential for learners to communicate. If learners lack of knowledge about collocations, communication will be impeded. This knowledge can bridge the gap between grammar and vocabulary (Scrivener, 2005). Collocations are often arbitrary. For instance, it is accurate to say *make the bed*, but it is not said to *do the bed*. People say to *turn on the light*, but they do not say to *open the light*. Also, they use the word *shrug* with *one's shoulder* only. It is difficult for EFL learners to deal with collocations and try to produce them fluently when they do not focus on learning or understanding collocations (Benson, Benson & Ilson, 2010; Lewis, 1997). Collocations are difficult to predict, and second language learners have to remember collocations as single items. The frequent occurrences of collocations are also another reason why it is essential to learn collocations. More than 70% of what people speak, hear, read, and write are collocations, and they are the most common of English multi-word expressions (Hill, 2000).

Collocational errors occur frequently in the EFL context. For example, learners say *go to swimming*, *eat orange juice*, *do a mistake*, and *speak a story*. EFL learners experience difficulty with collocations, especially unique collocations or idiomatic expressions such as *a hot potato*, *it is raining cats and dogs*, *withering glance*. The first language or mother-tongue of learners also affects their comprehension and production of collocations. Educators must select the appropriate type of collocations to teach in each class, typically active and clear collocations. Overall, the evaluation of a learner's vocabulary competence must include the assessment of collocation knowledge (Gyllstad, 2009). Thus, raising awareness in teaching collocations is necessary to help EFL or ESL learners to master languages (Boonyasquan, 2006). Collocations are quite new for teachers, and often the teacher's knowledge of collocations is not sufficient. Teachers do not realize that it is necessary to teach words in chunks, and introducing only a single word is not enough. For example, when teachers introduce the word *homework*, the chunk *do homework* should be introduced instead (Conzett, 2000). Recently, AyashEzzi (2018) studied raising advanced learners' awareness of word-collocations in English. The results showed that learners experienced difficulty in using both lexical and grammatical collocations. Furthermore, it was apparent that collocations were not taught to learners because common collocations were still chosen incorrectly by many learners and ignored by others.

To conclude, knowledge of collocations is an important aspect of language competence. Collocations are arbitrary, occur frequently in daily communication, and it is often difficult to predict their meaning. EFL teachers should introduce new vocabulary as a chunk and emphasize active collocations. Teaching collocations in the class will help learners to reduce their processing load and will foster effective comprehension and production of the target language (Boonyasquan, 2006).

2.3 Testing collocations

Research on knowledge of collocations is receiving more attention. This research has used receptive and productive testing to measure the relationship between knowledge of collocations and linguistic proficiency. Receptive and productive results may depend on the type of measured used (Laufer & Goldstein, 2004). Melka (1997) indicated that receptive and productive knowledge lie on a continuum and knowledge gradually

moves from receptive skill towards productive ones as more is learned about the lexical item. Specifically, collocation knowledge has been assessed via receptive and productive measurements such as translation, multiple choices, cloze procedures, error analysis, and recall and recognition tasks (Gyllstad, 2009).

Receptive knowledge of collocations can be influenced by learning stages and correlates with overall proficiency, depth, and vocabulary size tests. Also, Meara (1997) explained that the development from receptive to productive knowledge is the result of a fundamental change in the way a lexical item is integrated into the mental lexicon. COLLEX (Collocating lexis) and COLLMATCH (Collocate matching) tests were developed by Gyllstad (2009) to assess advanced Swedish learners' receptive recognition knowledge of English verb + noun word combinations, primarily in upper secondary school and university situations. These tests were developed to study vocabulary depth such as words and their collocations, and they attempt to assess learners' competence to choose phrases appropriately. For example, learners have to say *make a decision* rather than *do a decision* or *set a decision*. Although the grammatical structure of the latter sentences is correct, and people can understand those sentences, native speakers never use them. The COLLEX and COLLMATCH tests of collocational knowledge are reliable and valid (Milton, 2009). However, these tests do not provide contextual information, which may influence the test takers' performance (Gyllstad, 2009).

COLLEX presents three verb-noun collocations. The test includes one target collocation and two distracters. Test takers have to select the item that they believe is the most frequent and natural collocation. This test can measure a large number of items quickly and simply. Examples from the COLLEX test are shown below (Gyllstad, 2009).

- | | | |
|------------------------|--------------------|---------------------|
| 1. a. tell a prayer | b. say a prayer | c. speak a prayer |
| 2. a. drive a business | b. run a business | c. lead a business |
| 3. a. do a homework | b. make a homework | c. clear a homework |

The COLLMATCH test is a yes/no format, and test-takers are required to choose whether the presented sequences frequently occur together in English or not. Examples from the COLLMATCH test are shown below.

1. have a say 2. lose sleep 3. do justice 4. draw a breath 5. turn a reason

<input type="checkbox"/>	yes
<input type="checkbox"/>	no

<input type="checkbox"/>	yes
<input type="checkbox"/>	no

<input type="checkbox"/>	yes
<input type="checkbox"/>	no

<input type="checkbox"/>	yes
<input type="checkbox"/>	no

<input type="checkbox"/>	yes
<input type="checkbox"/>	no

CONTRIX test (Constituent Matrix) uses a receptive format, but it is claimed that this test can measure second language learners' productive knowledge of verb-object/noun collocations, such as *make a complaint*, *keep a secret*. In the CONTRIX test, test takers must fill in the gap by selecting words from each of the three columns to the right. Test takers are required to choose the appropriate combination of verbs, articles, and nouns, which relate to the given sentence. An example of the CONTRIX test is shown below.

Even as a child, John decided to _____ . As an adult, he really likes being able to read about his thoughts and other things that happened to him in his childhood.	push	a/an	secret
	keep	the	idea
	pull	-	diary

According to the example above, the expected answer is keep + a + diary. This type of test can be used to measure test takers' productive knowledge because test takers must produce meaning by combining lexical constituents. Also, Schmitt (2010) indicated that the contextual word knowledge aspects, like collocation and register, are especially likely to lag in reaching productive knowledge, as acquiring this type of knowledge necessitates a great deal of exposure.

Finally, the collocation recall test was created to measure productive knowledge. In the original test, the learners were given Polish phrases and were required to answer with the English equivalents. The learners were awarded one point if they produced the correct verb and noun. An example from the collocation recall test is given below.

Translate into English

zrobić zdjęcie _____ ('take a photograph')*

**The English translation is provided for clear understanding. Test-takers were provided only Polish phrases.*

2.4 Previous research on collocations

Research on the second language receptive knowledge of collocations has revealed the factors that influence learning including, node word frequency, collocation frequency, mutual information score, congruency, and part of speech (Nguyen and Webb, 2016). A study investigated Vietnamese EFL learners' receptive knowledge of verb-noun and adjective-noun collocations at the 1,000, 2,000, and 3,000 word frequency levels (Beglar & Nation, 2007). Two tests were used. The first test was created to measure learners' receptive knowledge of collocation, and the second was a new version of the vocabulary level test (VLT) designed to measure receptive knowledge of single-word items (Webb & Sasao, 2013; Webb, Sasao, & Ballance, 2017). Knowledge of single-word items at the same word frequency levels was also examined. The results showed that participants do not possess the receptive knowledge of collocations required to master the language at any word frequency level. Specifically, participants' knowledge of collocations was less than 50%. This knowledge also decreased at each frequency level. The results from the second test revealed a significantly large positive correlation between knowledge of collocations and single-word items. The strongest predictor of receptive knowledge of collocation was node word frequency (Nguyen & Webb, 2016). These results indicate that single-word items are the main focus for vocabulary teaching and learning. Vietnamese learners probably do not have exposure to the multi-word unit. Thus, learners may not understand the meaning in each context (Tran, 2012) and, moreover, they are not aware of their inadequate understanding of collocations. Emphasizing collocations in Vietnamese learners may improve fluency (Boers, Eyckmans, Housen, & Stengers 2011). Indeed, even if learners are familiar with single-word items, a lack of collocational knowledge will impede their communication skills (Nguyen & Webb, 2016).

Nizonkiza, Dyk, and Louw (2013) studied second language learners' productive knowledge of collocations at the tertiary-level. The participants were first-year learners at North-West University. Participants were required to take a collocation test (Laufer & Nation, 1999), and words on the test were chosen from 2000-, 3000-, and 5000-word bands (Beglar & Nation, 2007) and the academic word list (Coxhead, 2000). The results of the study indicated that some participants had mastered the 2000-word band while either had not, and none of the participants had sufficient knowledge of the 3000-word band. Consistent with previous studies (Laufer & Waldman, 2011; Nesselhauf, 2005), the study concluded that second language learners lacked collocational knowledge, which may cause difficulties at advanced language levels. According to the results of the study, awareness of collocations must be explicitly raised in teaching. Learners should be required to reach minimum knowledge of productive knowledge to assist them at the tertiary level (Barfield & Gyllstad, 2009).

Banboua (2016) conducted research on testing collocational knowledge in Yemeni EFL university learners who were enrolled in an intensive English Course at UUM/Malaysia. A multiple-choice collocational test (MCT) was used in this study, and the results showed that participants' knowledge of collocations was less than expected. The results also indicated that collocations were not a focus of teaching English in schools, which explains why learners lacked collocational knowledge. It also suggested that some teachers were inattentive to the concept of collocations.

Boudribila, Azalmad, and Khadiri (2018) investigated learners' productive knowledge of adjective-noun collocations in 464 Moroccan EFL students from seven universities in Morocco. A productive collocation test included 25 adjective-noun collocations. Participants were required to fill in the blanks with the most suitable adjectives. The results revealed that Moroccan students had difficulties with adjective-noun collocations. They produced unusual combinations such as *make homework* or *do decisions*. The misuse of collocations can lead to communication breakdown. As such, teachers must ensure that learners are aware of the importance of collocations and the frequent collocational errors that relate to the learners' level.

Begagić (2014) studied English language learners' productive and receptive knowledge of collocations. The participants were first, and fourth-year learners in the English

language and literature, and their native language was Bosnian, Croatian, and Serbian (BCS). This research was conducted to measure productive and receptive knowledge of lexical collocations to know the learners' collocational competence. It was found that learners had poor collocational knowledge, and their first language may have interfered with collocational learning. The manner in which learners were taught also focused on structure or grammar with little emphasis on the importance of collocations in language learning. Even though both first and fourth-year learners had poor collocational knowledge, their receptive knowledge of collocations was greater than their productive knowledge of collocations. The results indicated that verb + adverb collocations were the most difficult to produce. This study provides additional evidence for the importance of prioritizing collocations in curriculum development to improve learners' collocational competence.

Akbarian and Hosseini (2007) investigated the relationship between general language proficiency and collocational competence among senior EFL students from two Iranian universities. Two tests, the TOEFL test and the MC test of lexical collocations (noun + verb) were used in this study to assess learners' knowledge. The results indicated that there is a significant relationship between the scores of TOEFL and the collocation test, especially the scores on the vocabulary section of TOEFL and the collocation test. Thus, collocational competence is related to general proficiency. It was suggested that direct teaching and consciousness-raising teaching should be used to teach collocations. In addition, it was argued that collocations are a problematic aspect of vocabulary knowledge for EFL learners because, unlike vocabulary, they cannot be separated into constituent parts, such as suffixes, prefixes, and roots. Indeed, unlike vocabulary, EFL learners have to learn collocations as a whole.

Bahardoust (2012) studied lexical and grammatical collocations in writing production of EFL Learners. There were 200 EFL students from University of Kashan, selecting through purposive sampling. Three types of writing were used in the study and they were collected in the writing courses, including assignments, mid-term papers and final exam papers. The findings of the study revealed that learners might know the individual word, but they probably did not know the collocation. Learners lacked collocational knowledge and it affected the writing performance. Also, the results showed that

learners performed better on lexical collocations than grammatical collocations, especially adjective + noun because this type of collocations may not be affected by L1. Moreover, the most problematic type of Iranian EFL learners in using collocation was noun + verb collocation. Teachers can provide classroom activities and exercises on collocations to promote the use of English collocations, especially in writing skills.

Alsulayyi (2015) investigated the Use of Grammatical Collocations by Advanced Saudi EFL Learners in the UK and KSA. Essay writings written by participants were used in this study. The results showed that Saudi EFL learners in the UK performed grammatical collocation errors less than learners who learned English in the KSA. The most problematic collocation was on the grammatical collocations patterns, noun + preposition and adjective + preposition because of L1 interference, especially collocations including a preposition. Teachers need to focus more on these types.

Chorbwhan and McLellan (2016) investigated learners' collocational knowledge in Malaysian and Thai learners from an international program at Fatoni University in Pattani. This study explored the effect of learners' first language on their English collocational knowledge. Receptive and productive tests were used to assess learners' knowledge through lexical and grammatical collocations, and interviews were also conducted. The results indicated that there were significant differences between the two groups, especially in lexical collocations. Both groups scored better in the receptive test than the productive test but Thai learners scored better than Malaysian learners on lexical collocations. These results suggest that the first language can both positively and negatively affect learners' collocational knowledge.

Talakoob and Koosha (2017) studied advanced EFL learners' knowledge of different collocation types, including verb + noun, verb + preposition, and adjective + noun collocations. The participants were 50 MA learners of TEFL who studied at Islamic Azad University and were chosen by an Oxford placement test. Their collocational knowledges were assessed by three collocational tests, including a test of verb + noun collocations, adjective + noun collocations, and verb + preposition collocations. It was found that advanced learners had higher scores on verb + noun and verb + preposition collocations tests than on adjective + noun collocations, perhaps because verbs and nouns occupy the central position in the sentence, but adjectives do not. Moreover, the

main constituents of the sentence are verbs and nouns. Learners probably do not need to use adjectives in every sentence. Also, verb + noun and verb + preposition collocations are more frequent in spoken and written English for EFL learners. Therefore, the results indicate that teaching single vocabulary items does not produce efficient language use because learners have to learn frequent word combinations to develop their language use.

In the Thai context, Bueraheng and Laohawiriyanon (2014) studied the relationship between exposure to the English language and learners' knowledge of collocations. This study emphasized productive and receptive collocations (verb + noun and adjective + noun collocations). There were two groups of participants, who were 106 fourth-year university learners in an international program and English major program. The COLLMATCH 3 receptive collocation test and productive collocation test were used in this study. The results of the study showed that both groups had significantly higher test scores of receptive knowledge than productive knowledge. The results showed that productive collocational knowledge will increase when receptive collocational knowledge expands (Shehata, 2008). Although learners perform well on receptive measures, they may show poor performance on productive measures because of adopted strategies, such as guessing, L1 dependence, and using their creativity. Also, learners generally can produce the spelling of the base form of target words, but they often cannot produce some of the word's derivative forms and meanings (Schmitt, 1998). The international program students had higher scores than the English major students on both tests. Participants performed better on adjective + noun collocations than verb + noun collocations. It was suggested that teachers should focus on teaching productive skills with collocations such as essay writing, conversation exercises, especially verb + noun and adjective + noun collocations.

Dokchandra (2019) studied Thai EFL learners' knowledge of collocations and their perceived difficulty in using collocations. Participants were 153 second, third, and fourth-year learners who enrolled in an English course in the second semester of 2017. They were required to take a collocation test, which required filling in the blank items, and they also had to answer a Likert's type questionnaire of 5 rating scales about their perceptions of collocational difficulty. The result revealed that, overall, participants'

knowledge of collocations was low to moderate. Although they were in different years of studies, the knowledge of collocations was not significantly different. Again, these results are consistent with previous studies and provide further evidence that learners of English, at all proficiency levels, have difficulty learning and using collocations, and Thai learners of English do not possess sufficient knowledge of collocations (Hsu & Chiu, 2008; Mallikamas & Pongpairroj, 2005; Yumanee & Phoocharoensil, 2013). Overall, the idiomatic collocations were the collocations that participants perceived to be the most difficult, and the perceptions of idiom expressions as the most difficult were consistent across all proficiency levels.

Detdamrongpreecha (2014) examined the acquisition of basic collocations in Thai learners of English. Participants were 104 second-year learners from an international program, English for International Communication, and non-English programs. The receptive collocational proficiency test, the productive collocation proficiency, which emphasized three categories of collocations, and a background questionnaire were used to conduct the data. The results indicated that learners' productive knowledge of collocation was slightly higher than receptive knowledge. Also, participants had difficulties with both types of the test but performed best on noun + noun collocations. It was found that translation from the first language (L1) to the second language (L2), limited knowledge of culture, and the use of delexicalized words impeded learners' receptive and productive knowledge of collocations.

Suwitchanphan and Phoocharoensil (2014) studied EFL regular and English program learners' knowledge of collocations, especially adjective + noun collocations. The study aimed to investigate the relationship between the school curriculum and the knowledge of collocations. There were 60 learners from regular and English programs in a private school. The gap-filling test, the collocation selection test and the descriptive written task were used in this study. In the gap-filling test, the results showed that the regular program learners had a higher score than the English program learners. Based on the collocation selection test, there was no significant difference between the regular program and the English program. According to the descriptive written task, regular program learners were more likely than the English program learners to use adjective + noun collocations. In contrast to previous studies (Cowie, 1998; Brashi, 2009;

Obilisteanu, 2009), they argued that more exposure to a language promotes fluent language use. However, it is likely that, for the regular program learners, their opportunities to use the language through speaking and writing were probably limited only in the classroom.

Sridhanyarat (2018) studied Thai learners' acquisition of second language collocations by investigating the difficulty of grammatical and lexical collocations for Thai EFL learners. Specifically, the relationship between different proficiency levels and learners' collocational knowledge was examined. The participants were separated into high and low proficiency groups, and the learners' collocational knowledge was assessed via receptive and productive tasks. The results revealed that most target collocations were too difficult for both groups of learners. Only verb + preposition collocations were mastered by advanced learners. The difficulties with collocations may be related to learners' first language transfer, transfer of previous knowledge of congruent collocations, and effects of both receptive and productive tasks. It is suggested that teaching a group of words is better than teaching single words. Also, practicing the use of frequent collocations and dictionaries in class is beneficial for learners to improve collocational competence.

2.5 Summary of the current study

The current study investigated the receptive and productive knowledge of English collocations in Thai EFL learners and the relationship between receptive and productive knowledge of English collocations. The aim was to provide a deeper understanding of the nature of collocation acquisition. The following research questions were formulated for this study: 1) What is Thai high school EFL learners' receptive and productive knowledge of English collocations? and 2) 1. Is there any relationship between receptive and productive knowledge of English collocations in Thai high school EFL learners?

This study measured learners' knowledge of lexical and grammatical collocations to understand their receptive and productive knowledge. Concepts of testing theory, language testing research, and lexical testing were used to develop test instruments that measured EFL learners' receptive and productive knowledge of collocations within the context of the research design. Receptive and productive knowledge of lexical

collocations were assessed using the developed test from the COLLEX test (Gyllsatad, 2009) and the collocation recall test (Szudarski, 2012). Also, receptive and productive knowledge of grammatical collocations were measured using the developed test by the COLLMATCH test (Gyllsatad, 2009) and the CONTRIX test (Revier, 2009). Specifically, lexical collocations included adjective + noun, verb + adverb, and verb + noun, whereas grammatical collocations included preposition + noun, noun + preposition, and verb patterns. Figure 6 outlines how knowledge of collocations was measured in this study.

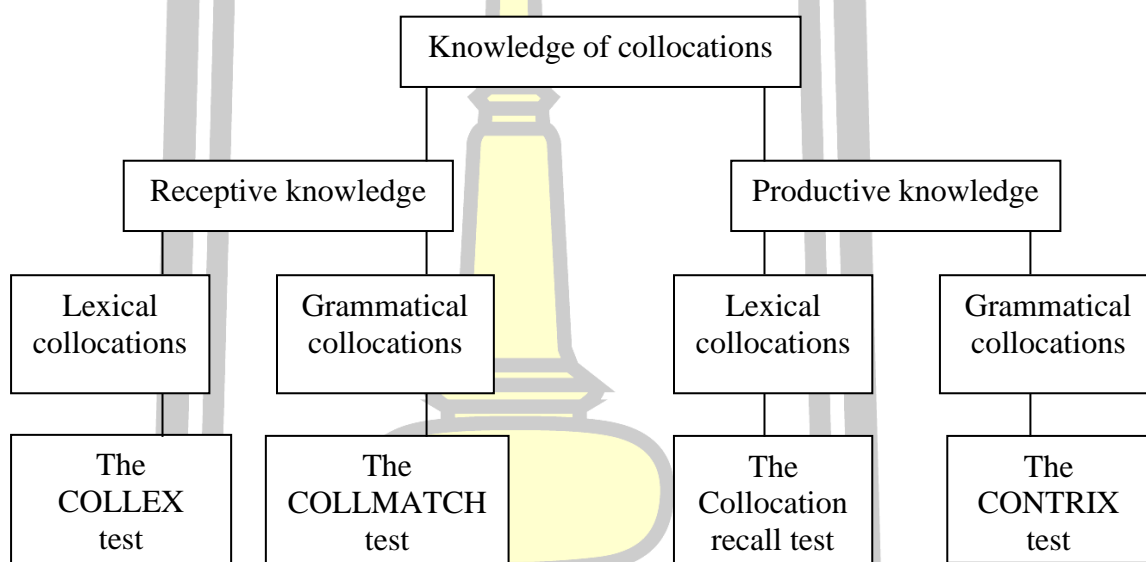


Figure 6: Measurements of collocational knowledge

CHAPTER III

RESEARCH METHODS

The current study aimed to measure Thai EFL learners' knowledge of collocations. Collocations knowledge is based on receptive and productive knowledge of lexical and grammatical collocations (McCarthy and O'Dell, 20017). This chapter provides details about the research methodology of the current study, including the participants and settings, research instruments, data collection procedures, and data analysis for both the pilot study and the main study. The methodology follows previous studies examining receptive and productive knowledge of collocations (Nizonkiza, Dyk & Louw, 2013; Detdamrongpreecha, 2014; Suwitchanphan & Phoocharoensil, 2014; Banboua, 2016; Nguyen & Webb, 2016; Nuramal & Chonlada, 2016; Boudribila, Azalmad & Khadiri, 2018; Dokchandra, 2019).

3.1 Participants and setting

The populations of this current study were 1,038 Thai EFL senior high school learners in northeastern Thailand. The convenience sampling was used in this study. Then, there were 536 senior high school learners who were voluntary to do the test in this study. After that, they needed to access the internet to do the test via Google form for two days. However, some of them could not access the internet and were not available on the test days. On the first day of the test, 335 senior high school learners completed the Collocation recall test and the COLLEX test. On the second day of the test, 324 senior high school learners completed the CONTRIX test and the COLLMATCH test. Finally, only 314 participants could complete all four tasks. Therefore, the data analysis was based on 314 participants' responses. Furthermore, the participants were Thai EFL high school learners in tenth, eleventh, and twelfth-grade in northeastern Thailand and their English proficiencies were mixed. All participants were 16 to 18 years old at the time of data collection. The researcher had not taught anything about English collocations before the data collection procedure. The main study was conducted at a high school under the office of the Basic Education Commission in northeastern Thailand. Each class consisted of 40 to 50 learners who were Thai native speakers. The participants had studied English approximately four hours per week, including a three-hour English

class with a Thai EFL teacher and a one-hour English class with English native speakers.

3.2 Research instruments

Four tests were used in this current study. The COLLEX test and the COLLMATCH test were used to assess receptive knowledge of collocations. The tests of Collocation recall and CONTRIX were used to assess productive knowledge of collocations. The COLLEX test and the Collocation recall test focused on three types of lexical collocations, which were adjective + noun, verb + adverb, and verb + noun. The COLLMATCH and the CONTRIX test focused on three types of grammatical collocations, which were preposition + noun, noun + preposition, and verb patterns. Before the main study, the four tests were piloted with 50 high school learners to assess the validity and reliability of tests. Eight experts in the area of English Education also evaluated the tests. The receptive tests included 60 items, and the productive tests included 45 items.

3.2.1 The receptive tests of English collocations

The COLLEX test (Collocation lexis test)

The test measured receptive lexical collocations. This test was developed based on previous studies (Gyllstad, 2009) and measured the learner's receptive knowledge of lexical collocations, which focused on adjective + noun, verb + adverb, and verb + noun. The test was presented in a multiple-choice format, and participants had to choose the one item (out of three items) that they thought was the most frequent and natural collocation. The test included 20 items per each type of lexical collocations, and the total was 60 items. If participants choose the correct English collocations, they receive one point. Examples of the items used in this test are shown below.

- | | | |
|-----------------------------|---------------------------|----------------------------|
| 1. a. <i>strong</i> coffee | b. <i>powerful</i> coffee | c. <i>energetic</i> coffee |
| 2. a. whisper <i>mildly</i> | b. whisper <i>softly</i> | c. whisper <i>smoothly</i> |
| 3. a. <i>do</i> homework | b. <i>make</i> homework | c. <i>clear</i> homework |

The COLLMATCH test (Collocate matching test)

The test measured receptive grammatical collocations (Gyllstad, 2009). This test measured learners' receptive knowledge of grammatical collocations, including

preposition + noun, noun + preposition, and verb patterns. This test was a yes/no format and participants must choose Yes if the given word is correct or choose No if it is incorrect. The test included 20 items per each type of grammatical collocations, and a total was 60 items. The participants were awarded one point for each correct answer. Examples are provided below.

1. problem *about*

<input type="checkbox"/>	yes
<input type="checkbox"/>	no

2. *at* the job

<input type="checkbox"/>	yes
<input type="checkbox"/>	no

3. start *from*

<input type="checkbox"/>	yes
<input type="checkbox"/>	no

3.2.2 The productive tests of English collocations

The Collocation Recall test

The test measured productive knowledge of lexical collocations (Szudarski, 2012). This test was used to measure learners' productive knowledge of lexical collocations, including adjective + noun, verb + adverb, and verb + noun. The participants were required to translate the meaning of English collocations in Thai into English. On adjective + noun collocations, it provided only a noun as the answer and participants asked to answer an adjective related to Thai meaning of English collocations. On verb + adverb collocations, it gave only a verb and participants needed to complete an adverb. On verb + noun collocations, it provided a noun and participants required to answer a verb. The test included fifteen items per each type of lexical collocations, and the total was 45 items. One point was awarded for each correct answer. Examples are given below.

1. คุณภาพแย่ _____ quality

2. กระซิบเบาๆ whisper _____

3. ทำการบ้าน _____ homework

The CONTRIX test (Constituent matrix test)

The test measured productive grammatical collocations (Revier, 2009). This test measured learners' productive knowledge of grammatical collocations, including preposition + noun, noun + preposition, and verb patterns. This test was presented in a

‘fill-in-the-blank’ format, and participants must choose the appropriate answers to complete the given sentence. The test included fifteen items per each type of grammatical collocations, and the total was 45 items. One point was given to each correct response. Examples of test items were provided below.

My father has _____ A _____ B _____ the computer.

- A.
 - 1. annoyances
 - 2. disadvantages
 - 3. difficulties
- B.
 - 1. with
 - 2. of
 - 3. about

3.3 Selected target collocations

The target collocations in the tests were based on Benson, Benson, and Ilson’s collocational concept (2010), which included lexical and grammatical collocations. The appropriate and inappropriate collocations in the tests were determined using the O-NET test of academic year 2017 to 2019 for upper high school learners (NIETS, 2019). To select the target collocations, the most frequent types of collocations for EFL learners in the O-NET test which are lexical collocations (adjective + noun, verb + adverb, and verb + noun) and grammatical collocations (preposition + noun, noun + preposition, and verb patterns), were included (Nesselhauf, 2003; NIETS, 2019). According to the O-NET test for upper high school learners (NIETS, 2019), 218 lexical collocations could be classified into three sub-types, including adjective + noun, verb + adverb, and verb + noun. In addition, 188 grammatical collocations could be classified into three sub-types, including preposition + noun, noun + preposition, and verb patterns.

Then, target collocations were identified by CEFR standard (Common European Framework of Reference for Languages)(Council of Europe, 2001) and B1 and A2 CEFR level of target collocations were used in the tests. According to B1 and A2 CEFR level, 69 lexical collocations and 65 grammatical collocations. After that, eight EFL experts were asked to measure the the validity of the tests and to provide suggestions

about the tests. Finally, the pilot test were conducted to measure the reliability of the tests. The items of the tests that did not passed the validity ($IOC \geq 0.5$), the difficulty ($0.2 - 0.8$), and the reliability (≥ 0.5) were removed. After the pilot test, this resulted in 60 lexical and 60 grammatical target collocations for receptive tests. Also, there were 45 lexical and 45 grammatical collocations. Summaries of the target collocations and lists of target collocations are shown in Tables 2, 3, 4, and 5.

Table 2: The target lexical collocations

Lexical collocations	Number of target collocation		
	O-NET (NIETS, 2019)	CEFR level (Council of Europe, 2001)	EFL experts and the pilot test
adj. + n.	121	27	20
v. + adv.	29	20	20
v. + n.	68	22	20
n. + v.		excluded	
n + n			
adv. + adj.			
Total	218	69	60

Table 3: The target grammatical collocations

Grammatical collocations	Number of target collocation		
	O-NET (NIETS, 2019)	CEFR level (Council of Europe, 2001)	EFL experts and the pilot test
prep. + n.	60	21	20
verb patterns	79	21	20
n. + prep.	49	23	20
n. + to inf.		excluded	
n + that clause			
adj. + prep.			
predicate adj.+ to inf			
adj + that clause			
Total	188	65	60

Table 4: Lists of target lexical collocations

Lexical collocations		
adj. + n.	<i>energetic music</i> <i>long trip</i> <i>important issue</i> <i>shared service</i> <i>strong evidence</i> <i>various kinds</i> <i>fast speed</i> <i>responsible person</i> <i>broken wing</i> <i>academic program</i>	<i>impossible task</i> <i>terrible headache</i> <i>wooden toy</i> <i>musical instrument</i> <i>precious gift</i> <i>valued partner</i> <i>damaged vehicle</i> <i>classical music</i> <i>sticky tongue</i> <i>full-time teacher</i>
v. + adv.	<i>develop fully</i> <i>affect directly</i> <i>agree completely</i> <i>consider seriously</i> <i>accept generally</i> <i>eat properly</i> <i>appear suddenly</i> <i>arrive shortly</i> <i>peel carefully</i> <i>hurt badly</i>	<i>appreciate deeply</i> <i>help greatly</i> <i>stop immediately</i> <i>see clearly</i> <i>discover recently</i> <i>begin immediately</i> <i>behave differently</i> <i>kill instantly</i> <i>clean gently</i> <i>say softly</i>
v. + n.	<i>get directions</i> <i>get a headache</i> <i>take an exam</i> <i>give a speech</i> <i>give pleasure</i> <i>give a lecture</i> <i>change appearance</i> <i>face problems</i> <i>play sports</i> <i>pay fines</i>	<i>plan a trip</i> <i>provide information</i> <i>offer menu</i> <i>complete the task</i> <i>join conversation</i> <i>attend the class</i> <i>deliver mail</i> <i>reserve a table</i> <i>earn a degree</i> <i>wipe teeth</i>

Table 5: Lists of target grammatical collocations

Grammatical collocations		
prep. + n.	<i>above the ground</i> <i>in the state</i> <i>in the program</i> <i>at the party</i> <i>on the court</i> <i>in the area</i> <i>in class</i> <i>on the land</i> <i>in the century</i> <i>in a statement</i>	<i>at the conference</i> <i>in the garden</i> <i>in danger</i> <i>in the soil</i> <i>on the sand</i> <i>in the kingdom</i> <i>at dawn</i> <i>on arrival</i> <i>by airplane</i> <i>in the countryside</i>



verb patterns	allow <i>to</i> call <i>to</i> plan <i>for</i> begin <i>with</i> travel <i>by</i> apply <i>to</i> blame <i>on</i> force <i>to</i> study <i>for</i> invite <i>for</i>	respond <i>to</i> seem <i>to</i> jail <i>for</i> jump <i>from</i> lie <i>about</i> suffer <i>from</i> promise <i>to</i> slide <i>along</i> disappear <i>from</i> socialize <i>with</i>
n. + prep.	amount <i>of</i> use <i>of</i> state <i>of</i> part <i>of</i> case <i>of</i> study <i>on</i> reason <i>for</i> plan <i>for</i> evidence <i>on</i> land <i>of</i>	fight <i>with</i> defense <i>of</i> type <i>of</i> sign <i>of</i> treatment <i>for</i> damage <i>from</i> mayor <i>of</i> danger <i>of</i> frequency <i>of</i> treasure <i>of</i>

3.4 Data collection procedure

Research instruments were piloted to identify the validity and reliability of the test. After that, the researcher collected the data in the main study. Participants needed to do the tests via online systems (Google forms and Microsoft team). They had to join Microsoft team meeting to listen to the instructions of the tests. The researcher provided test instructions to participants in their native Thai language to avoid the confusion of the tests. Then, the tests on Google forms were provided to participants via Microsoft team chat. In the first day of data collection, the productive knowledge test of lexical collocations, namely the Collocation recall test and the receptive knowledge test of lexical collocations, namely the COLLEX test, were provided. In the second day, the productive test of grammatical collocations, namely the CONTRIX test and the receptive test of grammatical collocations, namely the COLLMATCH test, were assessed. Productive knowledge tests were provided to all participants before the receptive knowledge tests because it is essential to make sure that participants did not transfer knowledge from a receptive test to a productive test (Laufer & Goldstein, 2004). The four tests were administered as follows: 1) the Collocation recall test, 2) the COLLEX test, 3) the CONTRIX test, and 4) the COLLMATCH test. Participants were then given 60 minutes to complete the Collocation recall test and the COLLEX test.

Also, they had to complete the CONTRIX test and the COLLMATCH test in 60 minutes. During the tests, participants were required to open their camera via Microsoft team meeting to make sure that they do not find the answers from other sources such as the internet, book, etc. Also, participants needed to submit the answers on time and Google forms were closed after 60 minutes. A summary of the data collection procedure is shown in Table 6 below.

Table 6: Summary of the data collection procedure

Week	Productive knowledge	Time (mins)	Receptive knowledge	Time (mins)
1	The collocation recall test	35	The COLLEX test	25
2	The CONTRIX test	35	The COLLMATCH test	25
N=314				

3.5 Data analysis

The validity and reliability of the research instruments were evaluated using an index of item objective congruence (IOC), Kuder-Richardson 21 (KR21), level of difficulty, and discrimination power. After collecting the data, the test scores from each research instrument were analyzed with the Statistical Package for the Social Sciences (SPSS)(Larson-Hall, 2010). Descriptive statistics were calculated for the participants' test performance on receptive and productive knowledge of English collocations, including, means, percentage, and standard deviation. Furthermore, t-test was measured to examine the differences and effect size was used to calculated. Finally, Pearson's correlation coefficient was calculated to describe the relationship between receptive and productive knowledge of English collocations. The p-value will be calculated set at 0.05 to reject the null hypothesis (Fenton & Neil, 2018).

Mean refers to the average test scores of the participants, and standard deviations describe how scores are distributed among the mean (Mackey & Gass, 2005). T-test refers to the differences in collocational knowledge. Pearson's correlation coefficient refers to the strength of the relationship between two variables. Correlation was examined to reveal the relationship between different collocational tests based on Cohen's (1988) concepts: small, $r = 0.10$ to 0.29 ; medium, $r = 0.30$ to 0.49 ; large, $r = 0.50$ to 1.0 . The value range can be between -1.0 and 1.0 . A correlation of -1.0 indicates a perfect negative correlation and means that the variables move in opposite directions.

For example, when there is a positive increase in one variable, there is a decrease in the second variable. A correlation of 1.0 refers to a perfect positive correlation. That is, when there is an increase in one variable, the second variable also increases. Finally, Cohen's *d* was calculated to indicate the effect size of any differences, with an effect size of 0.20 considered small, 0.5 considered medium, and 0.80 considered large (Cohen, 1992).

3.6 Summary

This chapter described the methodology of the current study, including participants and setting, research instruments, data collecting procedures, and data analysis. A summary of the research design procedures is shown in Table 7.

Table 7: Summary of research design procedures for the current study

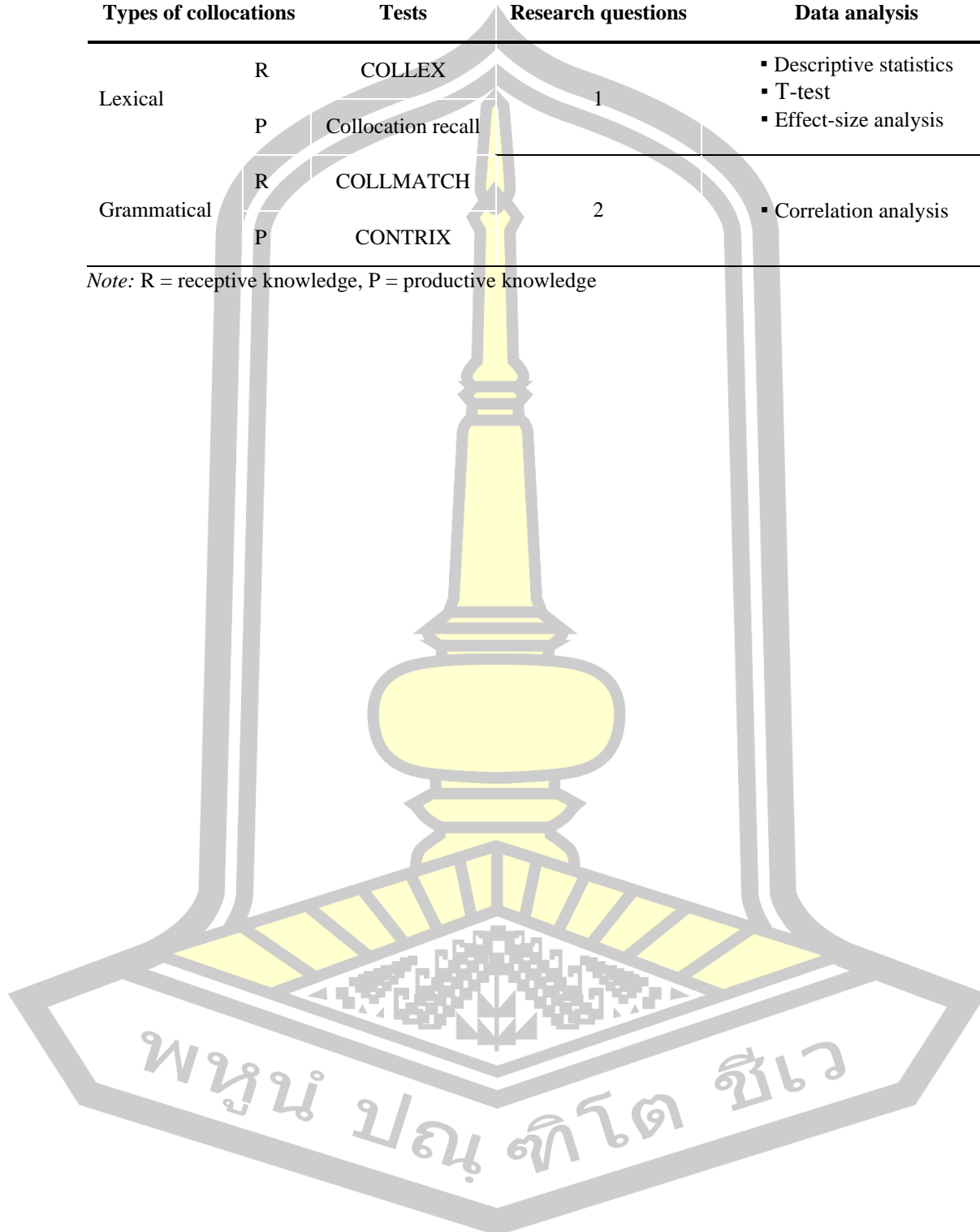
Phase	Procedure	Product
1. Pilot study	<ul style="list-style-type: none"> ▪ N = 50 ▪ Examine content validity ▪ Examine content reliability 	<ul style="list-style-type: none"> ▪ Measures of receptive and productive knowledge of English collocations ▪ 4 tests
2. Quantitative data	<ul style="list-style-type: none"> ▪ N = 314 ▪ Testing productive and receptive knowledge of lexical collocations using the collocation recall test and the COLLEX test ▪ Testing productive and receptive knowledge of grammatical collocations using the CONTRIX test and the COLLMATCH test 	<ul style="list-style-type: none"> ▪ Numeric data (test scores)
3. Quantitative Analysis	<ul style="list-style-type: none"> ▪ Descriptive statistics ▪ T-test ▪ Effect size ▪ Inferential statistics: Pearson's correlation coefficient ▪ SPSS software 	<ul style="list-style-type: none"> ▪ Conclusions

More specifically, the data analysis, broken down into two sections, is examined to answer Research Question 1 and Research Question 2. A summary of the data analysis is shown in Table 8. The next chapter will present the results of the current study.

Table 8: A summary of data analysis

Types of collocations		Tests	Research questions	Data analysis
Lexical	R	COLLEX	1	<ul style="list-style-type: none"> ▪ Descriptive statistics ▪ T-test ▪ Effect-size analysis
	P	Collocation recall		
Grammatical	R	COLLMATCH	2	<ul style="list-style-type: none"> ▪ Correlation analysis
	P	CONTRIX		

Note: R = receptive knowledge, P = productive knowledge



CHAPTER IV

RESULTS

The previous chapter described the data collection procedures and analyses that will be used to address the research questions in the current study. This chapter presents the findings related to the receptive and productive knowledge of English collocations in Thai high school EFL learners.

4.1 Receptive and productive knowledge of English collocations in Thai high school EFL learners

Receptive and productive tests of lexical and grammatical collocations were used to examine participants' knowledge of English collocations. Descriptive statistics were calculated including the mean score, percentage, and standard deviation (SD). T-tests were used to detect any significant differences between the four tests, and the effect size was also calculated. The four tests were the Collocation recall test, COLLEX test, CONTRIX test, and COLLMATCH test. These tests scored 0.945 on Cronbach's Alpha for normality, indicating acceptable reliability in measuring knowledge of English collocations. The summary of descriptive statistics for Thai high school EFL learners' knowledge of English collocations is presented in Table 9.

Table 9: Descriptive Statistics of Thai high school EFL learners' knowledge of English collocations (n = 314)

Types of collocations		Tests	Mean	SD
Lexical	R	COLLEX	34.50 (57.50%)	9.05
	P	Collocation recall	22.39 (49.75%)	9.52
Grammatical	R	COLLMATCH	36.20 (60.33%)	4.46
	P	CONTRIX	17.66 (39.25%)	9.20

Note: R = receptive knowledge, P = productive knowledge

The COLLEX and COLLMATCH tests measured the participants' receptive knowledge of lexical and grammatical collocations, respectively, whereas the Collocation recall test and CONTRIX test measured productive knowledge of lexical and grammatical collocations, respectively. Overall, the results showed that participants performed better on the receptive measure of English collocations, indicated by higher

average scores, than on the productive measure of English collocations. Specifically, the COLLEX test performance (57.50%) was higher than the Collocation recall test performance (49.75%) in the knowledge of lexical collocations. In the knowledge of grammatical collocations, the COLLMATCH test performance (60.33%) was higher than the CONTRIX test performance (39.25%). This may indicate that different types of collocations and measurements of collocational knowledge reflect various difficulty levels. A t-test was used to examine any significant differences between receptive and productive tests. Also, the effect size was calculated to indicate the relationship between receptive knowledge and productive knowledge. Table 10 presents the comparison between Thai high school EFL learners' receptive and productive knowledge of English collocations.

Table 10: Comparison between Thai high school EFL learners' receptive and productive knowledge of English collocations

Types of collocations	Tests	Mean	SD	<i>t</i>	Sig. (2-tailed)	Effect-size
Lexical	R COLLEX	34.50 (57.50%)	9.05	22.88	.000	1.44
	P Collocation recall	22.39 (49.75%)	9.52			
Grammatical	R COLLMATCH	36.20 (60.33%)	4.46	40.02	.000	2.52
	P CONTRIX	17.66 (39.25%)	9.20			

Note: R = receptive knowledge, P = productive knowledge

The mean scores of receptive and productive knowledge of lexical collocations on the COLLEX and the Collocation recall test performance were significantly different ($t = 22.88$, $p < 0.05$, Sig. 2-tailed = .000), with a large effect-size ($d = 1.44$). Furthermore, there was a significant difference between receptive and productive knowledge of grammatical collocations on the COLLMATCH and the CONTRIX test ($t = 40.02$, $p < 0.05$, Sig. 2-tailed = .000), with a large effect-size ($d = 2.52$). Comparison between Thai high school EFL learners' knowledge of lexical and grammatical collocations is presented in Table 11.

Table 11: Comparison between Thai high school EFL learners' knowledge of lexical and grammatical collocations

Types of collocations	Tests	Mean	SD	<i>t</i>	Sig. (2-tailed)	Effect-size
Lexical	R COLLEX	56.88 (54.17%)	16.57	2.31	.022	0.14
	P Collocation recall					
Grammatical	R COLLMATCH	53.86 (51.29%)	12.46			
	P CONTRIX					

Note: R = receptive knowledge, P = productive knowledge

Overall, the results show that participants performed better on the lexical collocations test than the grammatical collocations tests, indicated by higher average scores on the COLLEX and Collocation recall tests (54.17%) than the COLLMATCH and CONTRIX tests (51.29%). This suggests that lexical collocations may be easier than grammatical collocations. A t-test and effect size calculation were used to examine any significant differences between lexical and grammatical collocations tests. It was found that the mean scores of learners' knowledge on lexical collocations and grammatical collocations test performance were significantly different ($t = 2.31$, $p < 0.05$, Sig. 2-tailed = .022), with a small effect-size ($d = 0.14$).

This analysis also revealed significant differences in test performance between the different types of collocations, as shown in Table 12. Specifically, knowledge on the COLLEX test, a receptive measure of lexical collocations, was significantly different to knowledge on the COLLMATCH test, a receptive measure of grammatical collocations ($t = 2.62$, $p < 0.05$, Sig. 2-tailed = .009), with a small effect-size ($d = 0.16$), and the CONTRIX test, a productive measure of grammatical collocations ($t = 20.73$, $p < 0.05$, Sig. 2-tailed = .000), with a large effect-size ($d = 1.30$). Knowledge on the Collocation recall test, a productive measure of lexical collocations, also significantly differed from knowledge on the COLLMATCH test, a receptive measure of grammatical collocations ($t = 20.81$, $p < 0.05$, Sig. 2-tailed = .000), with a large effect-size ($d = 1.31$), and the CONTRIX test, a productive measure of grammatical collocations ($t = 5.69$, $p < 0.05$, Sig. 2-tailed = .000), with a medium effect-size ($d = 0.35$).

Table 12: Comparison between receptive and productive knowledge of English collocations on different measures

Types of collocations		Tests	Mean	SD	<i>t</i>	Sig. (2-tailed)	Effect-size
Lexical	R	COLLEX	34.50	9.05	2.62	.009	0.16
Grammatical	R	COLLMATCH	36.20	4.46			
Lexical	R	COLLEX	34.50	9.05	20.73	.000	1.30
Grammatical	P	CONTRIX	17.66	9.20			
Lexical	P	Collocation recall	22.39	9.52	20.81	.000	1.31
Grammatical	R	COLLMATCH	36.20	4.46			
Lexical	P	Collocation recall	22.39	9.52	5.69	.000	0.35
Grammatical	P	CONTRIX	17.66	9.20			

Note: R = receptive knowledge, P = productive knowledge

A summary of Thai high school EFL learners' knowledge of English collocations are presented in Figure 7. Overall, the results showed that participants achieved higher average performance on the receptive knowledge than productive knowledge of English collocations. In particular, they performed better on the COLLMATCH test (60.33%), a receptive measure of grammatical collocations than the COLLEX test (57.50%), a receptive measure of lexical collocations. Also, they had the better performance on the Collocation recall test (49.75%), a productive measure of lexical collocations than the CONTRIX test (39.25%), a productive measure of grammatical collocations. This suggests that productive knowledge of English collocations is more difficult to acquire than receptive knowledge of English collocations.

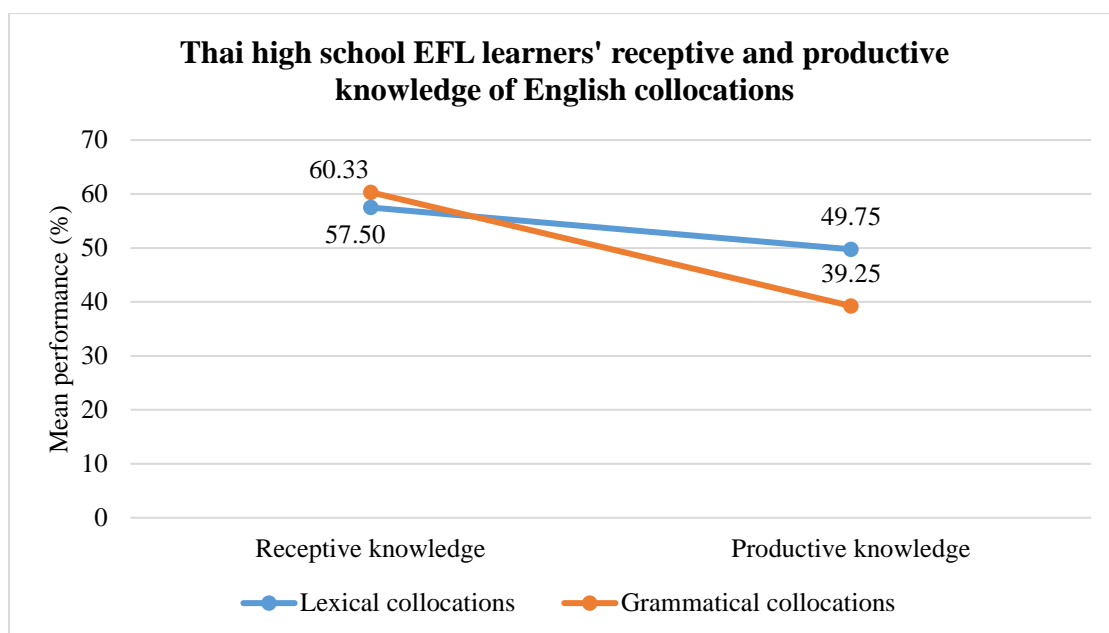


Figure 7: Thai high school EFL learners' receptive and productive knowledge of English collocations

4.2 Relationship between receptive and productive knowledge of English collocations

A correlation analysis was conducted to examine the relationship between different tests, including lexical and grammatical collocations. Pearson correlations were calculated to examine the strength and the direction (positive and negative) of the relationship between the participants' receptive and productive knowledge of English collocation, both lexical and grammatical collocations. The correlations are presented in Table 13.

Table 13: Correlations between receptive and productive knowledge of English collocations (Pearson correlations, r)

Types of collocations	Tests		COLLEX	Collocation recall	COLLMATCH	CONTRIX
Lexical	COLLEX	R	1	.593**	-.041	.006
	Collocation recall	P	.593**	1	-.001	.016
Grammatical	COLLMATCH	R	-.041	-.001	1	.618**
	CONTRIX	P	.006	.016	.618**	1

Note: R = receptive knowledge, P = productive knowledge

** Correlation is significant at 0.01 level (2-tailed)

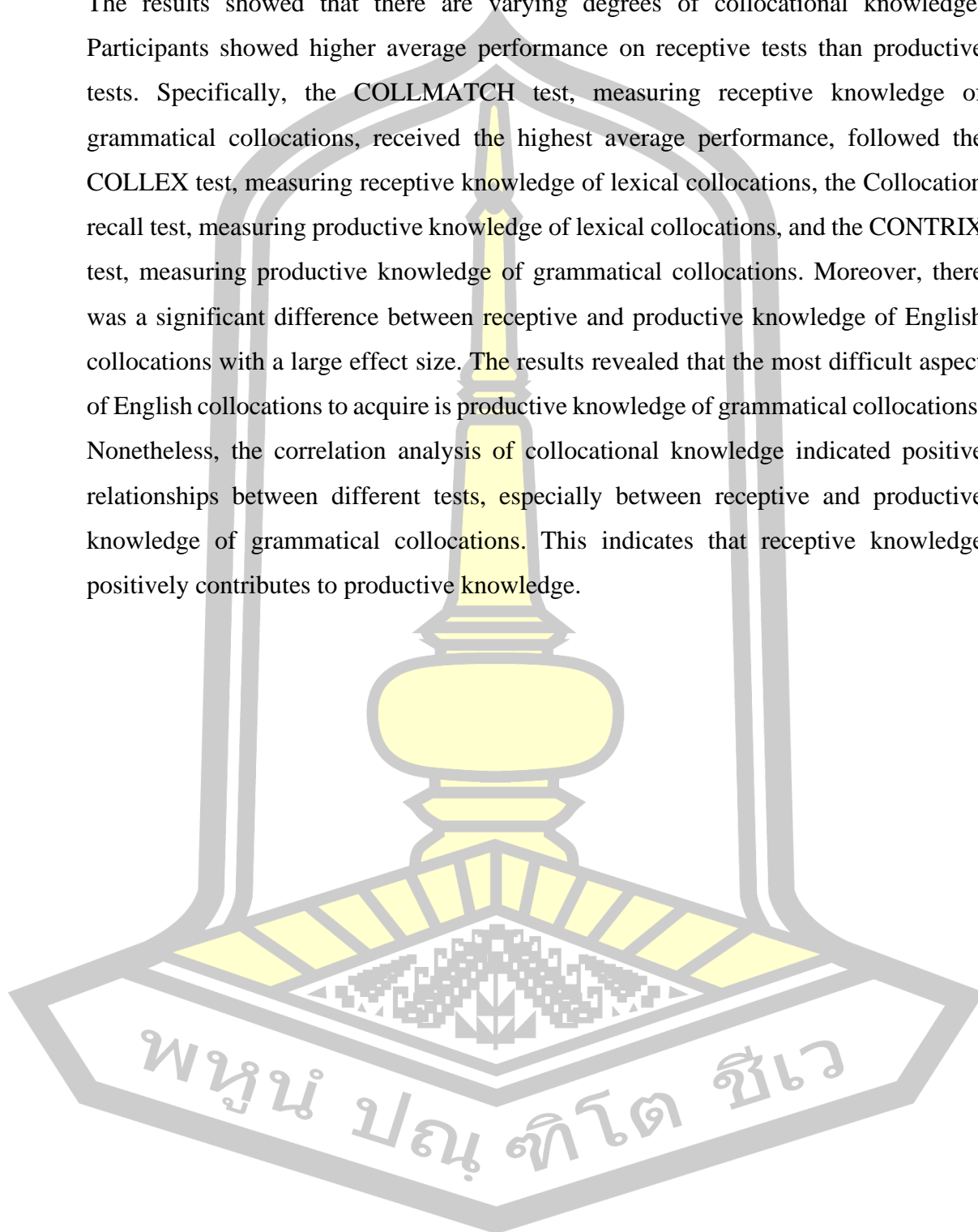
The results of the correlations analysis revealed that the receptive and productive knowledge of English collocations were moderately positively correlated. There was a moderate positive correlation between the COLLEX and the Collocation recall test, measuring receptive and productive knowledge of lexical collocations, respectively ($r = .593$). There was a moderate positive correlation between the COLLMATCH and the CONTRIX test, which measure receptive and productive knowledge of grammatical collocations, respectively ($r = .618$). The relationship between the Collocation recall and the CONTRIX test ($r = .016$), and the COLLEX and the CONTRIX test ($r = .006$), were not significant. Finally, the relationship between the Collocation recall and the COLLMATCH test ($r = -.001$), and the COLLEX and the COLLMATCH test ($r = -.041$), were also considered negligible.

The correlation analysis revealed relationships between receptive and productive knowledge of English collocations. Receptive and productive knowledge of each type of English collocations is correlated. That is, with an increase in the performance on the receptive knowledge of lexical collocations, performance on productive knowledge of lexical collocations also increases. Similarly, higher performance on the receptive knowledge of grammatical collocations is associated with higher performance on productive knowledge of grammatical collocations. On the other hand, participants with lower performance on receptive test of lexical collocations tend to have a lower performance on productive test of lexical collocations.

However, the relationship between the Collocation recall test, measuring productive knowledge of lexical collocations and the COLLMATCH test, measuring receptive knowledge of grammatical collocation ($r = -.001$), was considered negligible indicating no significant association between performance on the two tests. Also, the COLLEX test, measuring receptive knowledge of lexical collocations and the COLLMATCH test, measuring receptive knowledge of grammatical collocations ($r = -.041$), were not significantly correlated suggesting no relationship between the performances on these tests. Overall, the results of participants' knowledge of English collocations showed that the correlation between receptive and productive knowledge was relatively positive. This suggests that receptive knowledge can promote productive knowledge in learning English collocations.

4.3 Summary

The results showed that there are varying degrees of collocational knowledge. Participants showed higher average performance on receptive tests than productive tests. Specifically, the COLLMATCH test, measuring receptive knowledge of grammatical collocations, received the highest average performance, followed the COLLEX test, measuring receptive knowledge of lexical collocations, the Collocation recall test, measuring productive knowledge of lexical collocations, and the CONTRIX test, measuring productive knowledge of grammatical collocations. Moreover, there was a significant difference between receptive and productive knowledge of English collocations with a large effect size. The results revealed that the most difficult aspect of English collocations to acquire is productive knowledge of grammatical collocations. Nonetheless, the correlation analysis of collocational knowledge indicated positive relationships between different tests, especially between receptive and productive knowledge of grammatical collocations. This indicates that receptive knowledge positively contributes to productive knowledge.



CHAPTER V

DISCUSSION AND CONCLUSION

The previous chapter described the results of the current study and explained how these results addressed the research questions. This chapter will explore the current findings in relation to previous studies. Overall, the findings from this study provide a more thorough understanding of the roles of English collocations in vocabulary acquisition in the EFL context, particularly in a Thai context. Furthermore, this chapter will discuss the contribution of these findings to current pedagogy and vocabulary acquisition research. Finally, this chapter will outline the implications of this research for vocabulary learning, the limitations of the current study, as well as recommendations for future studies.

5.1 Introduction

The current study investigated knowledge of English collocations in Thai high school EFL learners. Specifically, the aim was to compare receptive and productive knowledge of English collocations and examine the relationship between these two types of knowledge. Four measures of collocational knowledge were used in the current study. The COLLEX test measured receptive knowledge of lexical collocations and the Collocation recall test investigated productive knowledge of lexical collocations. The COLLMATCH test assessed receptive knowledge of grammatical collocations and the CONTRIX test examined productive knowledge of grammatical collocations.

Two research questions were addressed in this study. The objective of Research Question 1 was to investigate Thai high school EFL learners' receptive and productive knowledge of English collocations. The results indicated that learners were better on receptive knowledge of English collocations than productive knowledge of English collocations. Especially, lexical collocations were the type of collocations that they performed better than grammatical collocations.

The objective of Research question 2 examined the relationship between receptive and productive knowledge of English collocations in Thai high school EFL learners. The results indicated that the relationship between receptive and productive knowledge of English collocations was moderately positive correlate. That is, with an increase in the

receptive knowledge of English collocations performance of the participants, their performance on productive knowledge of English collocations also grows.

In this chapter, the data was discussed about the concept of varying degrees of collocational knowledge (Benson, Benson & Ilson, 2010), together with the measuring receptive and productive vocabulary knowledge (Laufer & Goldstein, 2004).

5.2 Receptive and productive knowledge of English collocations in Thai high school EFL learners

Knowledge of collocations or word combinations can be beneficial for EFL learners to use a language naturally. For effective communication, learners must understand how to use collocations and expressions that are suitable for different contexts (Deveci, 2004). However, evidence suggests that it is difficult for EFL learners to master English collocations, compared to general vocabulary (Nesselhauf, 2003).

The four measures of collocational knowledge used in the current study assessed various aspects of collocational knowledge. The COLLEX test reflects a learner's ability to recognize the lexical collocations from the given items. On the other hand, the Collocation recall test shows a learner's ability to recall and retrieve the lexical collocations and the ability to produce the correct lexical collocations related to given L1 meanings. The COLLMATCH test examines a learner's ability to recognize grammatical collocations and identify the correct grammatical collocations from given alternatives. Conversely, the CONTRIX test indicates a learner's ability to recall the grammatical collocations and the ability to use grammatical collocations in an appropriate and meaningful context.

According to the results of the current study, learners performed better on the receptive tests of English collocations, with grammatical collocations outperforming lexical collocations. By contrast, on the productive tests, participants performed better on lexical collocations than grammatical collocations. The results of the current study provide clear evidence that receptive and productive performance differs in Thai EFL learners. Participants showed significantly poorer performance in productive ability (the Collocation recall test and the CONTRIX test) compared to receptive ability (the COLLMATCH test and the COLLEX test), with a large effect size.

The results of the current study showed that, learners had poor performance on English collocations, both receptively and productively. This indicates that Thai EFL learners may not have sufficient knowledge of English collocations. This might be due to inadequate exposure to collocations, as teaching and learning single-word items are the main focus in Thai education. Therefore, learners may not understand the meaning of English collocations in each context and are unable to use them appropriately (Tran, 2012). While learners may know single-word items, a lack of collocational knowledge will obstruct their communication skills (Nguyen & Webb, 2016). The results of the current study are consistent with previous studies (Begagić, 2014; Dokchandra, 2019; Nguyen & Webb, 2016; Nizonkiza, Dyk & Louw, 2013) that second language learners lack collocational knowledge. It appears that learners find it difficult to predict the meaning of collocations and have to remember collocations as single items (Boonyasquan, 2006; Hill, 2000).

The results of the current study revealed that learners performed better on receptive measures of collocation knowledge than on productive measures. This is because the ability to recall and produce English collocations is more complex than the ability to recognize English collocations. This is consistent with the theoretical framework of vocabulary knowledge acquisition (Laufer & Goldstein, 2004). Producing an English collocation demands the comprehension of collocations. That is, productive knowledge is built on receptive knowledge. The current results suggest that the productive ability requires heavier processing demands than the receptive ability. Indeed, receptive and productive performance lie on a continuum and knowledge gradually moves from receptive ability towards productive ability as more is learned about the lexical item (Melka, 1997). Also, Meara (1997) indicates that the development from receptive to productive performance is the result of a fundamental change in the way a lexical item is integrated into the mental lexicon. The contextual word knowledge aspects, like collocation and register, are especially likely to lag in reaching productive knowledge, as acquiring this type of knowledge necessitates a great deal of exposure (Schmitt, 2010). By contrast, the receptive skill requires lower processing demands than productive skill. The higher performance of English collocation on the receptive skill indicates that receptive collocational knowledge of EFL learners was wide, and participants could recall some English collocations. However, the productive

performance of a wide range of English collocations was generally limited. These results are generally in accord with previous studies (Begagić, 2014; Bueraheng and Laohawiriyanon, 2014; Chorbwhan and McLellan, 2016). These studies claim that learners find it difficult to use collocations, especially productively, and suggest that teachers should focus on teaching productive skills with collocations, such as essay writing and conversation exercises

According to Laufer and Goldstein (2004), receptive and productive results may depend on the type of measurement used. For receptive ability, learners performed better on the grammatical collocations than the lexical collocations because identifying the correct and incorrect English collocations generates lower processing demands than being asked to choose the appropriate English collocations among given alternatives. For productive measures, learners have better performance on the lexical collocations than the grammatical collocations because producing English collocations related to given L1 meanings may have required lower processing demands than completing a sentence using English collocations in prompted contexts.

According to the results, participants performed better on lexical collocations than grammatical collocations. The grammatical collocations probably were more difficult to acquire than the lexical collocations because grammatical collocations are collocations that combine a content word (a noun, a verb, or an adjective) and a function word, which is usually a preposition (Lewis, 2000). English prepositions are difficult for EFL learners to acquire because of L1 interference. Conversely, the lexical collocations may be easier because there are fixed and predictable within the words (Firth, 1980). Moreover, lexical collocations may be easier to acquire because the combining of lexical collocations is not limited to grammatical ones. Thus, learners likely have various alternatives to combine collocations. Again, consistent with previous studies (Bahardoust, 2012; Sridhanyarat, 2018), while learners have difficulty with English collocations, they perform better on lexical collocations than grammatical collocations.

Various types of lexical collocations (adjective + noun, verb + adverb, and verb + noun) and grammatical collocations (preposition + noun, verb + preposition, and noun + preposition) were measured in this study. The most difficult type of lexical collocations

was verb + adverb collocations, perhaps because this type of collocation is relatively uncommon in English texts and participants may not have sufficient exposure to this lexical collocation. Indeed, the frequency of verb + adverb collocations is less than other types of lexical collocations on the ONET tests and previous studies have also reported that verb + adverb collocations are the most difficult to produce (Begagić, 2014). Conversely, participants performed the best on verb + noun collocations, followed by adjective + noun collocations. This is also consistent with previous studies (Talakooob & Koosha, 2017) and may be explained by verbs and nouns occupying the central position in the sentence and verbs and nouns are also the main constituents of the sentence. In addition, verb + noun collocations are more frequent in spoken and written English for EFL learners. Finally, adjective + noun collocations could be easier than verb + adverb collocations because this type of collocations may not be affected by L1 (Bahardoust, 2012).

For the grammatical collocations, participants performed the best on preposition + noun collocations, followed by verb + preposition collocations, and noun + preposition collocations. According to the frequency of grammatical collocations on the ONET test, preposition + noun collocation is the most frequent type of collocation. Thus, participants may be familiar with this type of collocation because they frequently meet preposition + noun collocations in English text. Verb + preposition collocations may be easier than noun + preposition collocation as they are more common in oral and written input for EFL learners (Talakooob & Koosha, 2017). This is consistent with the frequency hypothesis that the order of development in second language acquisition is dependent on the frequency that various linguistic items occur in the input (Ellis, 2002). The most difficult type of grammatical collocations is noun + preposition collocation. These results are in accord with Alsulayyi (2015) who showed that learners made the most errors on the noun + preposition grammatical collocation. L1 interference, avoidance, and lack of grammatical collocations knowledge might be the main reasons for these errors.

The current study showed different difficulty levels of collocational knowledge. This suggests that collocation learning is incremental and some types of collocational knowledge are acquired before others. Indeed, learners may not establish all types of

English collocation simultaneously. The results of the current study showed that the knowledge of English collocations in Thai high school EFL learners has a specific sequence. First, the receptive performance of English collocation is easier to master than the productive aspect because learners only need to recognize the meaning of English collocations. On the contrary, they need to recall and retrieve English collocations to produce them on productive performance. Therefore, productive performance is difficult to master than receptive knowledge, especially collocational knowledge.

Collocational knowledge falls on a continuum and learners' knowledge of English collocations follows a specific order. The receptive performance of grammatical collocations seems to be the easiest to acquire, followed by the receptive performance of lexical collocations. Overall, receptive mastery generally develops before productive mastery. The receptive performance of grammatical collocations might be easier than the receptive performance of lexical collocations because it may require less cognitive processing demands. Indeed, learners need only to recognize the form of grammatical collocations and choose the correct items from fewer alternatives than lexical collocations. On the other hand, the productive performance of grammatical collocations seems to be the most difficult aspect to achieve, followed by the productive performance of lexical collocations. The productive knowledge of grammatical collocations may demand a deep understanding and heavier cognitive processing demands than the productive knowledge of lexical collocations. Not only do learners need to recall and retrieve English collocations to produce them, they also need to correctly produce them in different contexts. By contrast, learners only need to translate the given L1 meaning of English collocations on the productive knowledge of lexical collocations.

Together, the present findings reveal a model for the acquisition of English collocations in Thai high school EFL learners. The receptive performance of grammatical collocations will be achieved first, followed by receptive performance of lexical collocations, productive performance of lexical collocations, and, lastly, productive performance of grammatical collocations. The model of the acquisition of English collocations is illustrated in Figure 8.

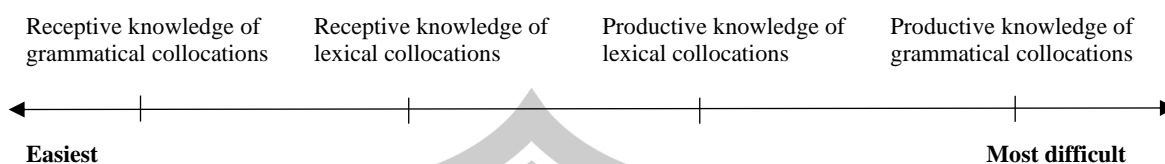


Figure 8: The model of the acquisition of English collocations in Thai high school EFL learners

In summary, like vocabulary, the hierarchy of the acquisition of English collocations is complicated and developmental. For receptive skills, grammatical collocations seem to be easier than lexical collocations but, for productive skills, lexical collocations may be easier than grammatical collocations. While the results are dependent on the types of receptive and productive tests used (Laufer & Goldstein, 2004), it appears that learners' receptive collocational knowledge is likely to be larger than their productive collocational knowledge. Indeed, the receptive knowledge of English collocations is a scaffolding mechanism for the productive knowledge of English collocations.

5.3 The relationship between receptive and productive knowledge of English collocations

The correlational analysis showed that there was a significantly positive relationship between receptive and productive knowledge of each type of English collocations. The relationship between the learners' receptive and productive performance on both lexical and grammatical collocations was moderately positively correlated. This result is consistent with previous studies showing that the relationship between receptive and productive knowledge of collocations is positively correlated (Detdamrongpreecha, 2014). That is, when receptive performance increases, the productive performance also increases and vice versa. This suggests that when learners can recognize the meaning of English collocations (i.e., receptive ability), they are more likely to produce the collocation appropriately (i.e., productive ability). This is consistent with previous reports that productive collocational knowledge will increase when receptive collocational knowledge expands (Shehata, 2008).

It is noteworthy that the correlational analysis of the current study also revealed negative relationships between receptive knowledge of grammatical collocations and receptive knowledge of lexical collocations and between receptive knowledge of grammatical collocations and productive knowledge of lexical collocations. These

findings indicate that once learners' receptive knowledge of grammatical collocations increases, their receptive and productive knowledge of lexical collocations drops, or vice versa. However, these correlations were not statistically significant. Nevertheless, the existence of negative correlations might suggest that the learner's vocabulary size is inadequate for the threshold of comprehension. That is, the learner's vocabulary size does not reach the threshold to recall and produce English collocations. As such, the learner may guess the answer. Alternatively, the learner's vocabulary may be in the developmental process; that is, the learner's knowledge of lexical items is partially known or mastered, and the learner may merely be able to recognize either meaning or form. The results of the current study are also consistent with a previous report showing that although learners perform well on receptive measures, they may show poor performance on productive measures because of adopted strategies, such as guessing, L1 dependence, and using their creativity (Bueraheng & Laowiriyanon, 2014). Also, learners generally can produce the spelling of the base form of target words, but they often cannot produce some of the word's derivative forms and meanings (Schmitt, 1998).

In summary, the results showed that collocational knowledge in a Thai context should be improved. The findings of the current study revealed Thai EFL learners had poor collocational knowledge, both receptively and productively. Learners need to acquire English collocations rather than single English words to use the English language naturally and fluently (Celce-Murcia, Brinton, Snow & Bohlke, 2013). Thus, teaching collocations in a Thai context can be advantageous for EFL learners.

5.4 Implications for English collocations learning

5.4.1 Methodological contribution

Collocational knowledge should be measured, both receptively and productively, but it should be noted that results are highly dependent on the types of receptive and productive tests used (Laufer & Goldstein, 2004). As such, in the current study, four measures of collocational knowledge were developed. First, the Collocation recall test, measuring productive knowledge of lexical collocations, required participants to produce English collocations related to the given L1 meaning. Second, the COLLEX test, measuring receptive knowledge of lexical collocations, asked participants to select

the correct collocations among various alternatives. Third, the CONTRIX test, measuring productive knowledge of grammatical collocations, required participants to produce the correct collocation related to the given context. Finally, the COLLMATCH test, measuring receptive knowledge of grammatical collocations, asked participants to identify the correct and incorrect collocations that are used in an English language. Thus, the current study provides resources to assess collocational knowledge for practitioners, test developers, and researchers. The collocational knowledge tests were developed for various lexical collocations, including verb + noun, adjective + noun, and verb + adverb collocations. The tests developed for grammatical collocations included preposition + noun, verb + preposition, and noun + preposition collocations. Practitioners, test developers, and researchers should examine how to expand these resources to other research contexts and applications.

5.4.2 Pedagogical contributions

The results reveal an empirical principle for teaching and learning English collocations. Collocational knowledge is essential for learners to use the English language naturally and fluently. However, collocational knowledge is difficult to acquire and learners' awareness of English collocations should be raised. Teachers should focus the importance of teaching collocations when they teach vocabulary. English language instruction should therefore teach collocations as a whole items rather than single words. Indeed, while learners may know the meaning of a single word, it does not mean they can use collocations correctly. Collocational knowledge in a Thai context should be improved, especially English vocabulary teaching.

In vocabulary course, Altuwairesh (2016) suggested that teachers can teach the principle on the use of concordance as the way to teach English collocations. When teachers teach vocabulary lesson, they can select a group of words that was presented and give concordances on them for learners. Then, learners need to study the concordances and find the most frequent collocations for each node. Also, Deveci (2004) suggested that when collocations are taught, reading and listening skill activities cannot be ignored because they encourage learners to notice collocations. Conversely, writing and speaking skill activities motivate learners to practice using collocations.

Based on the results of the current study, it is suggested that teachers identify and classify the most problematic types of English collocations and focus on these collocations in their courses. Based on the current study and previous studies, grammatical collocations appear to be more problematic than lexical collocations. Specifically, the verb + adverb collocation was the most problematic type of lexical collocation and the noun + preposition collocation also was the most difficult grammatical collocations. Teachers can emphasize these types of English collocations more in their curriculum to raise learners' awareness of using English collocations.

Overall, collocational knowledge is one effective technique to promote Thai EFL learners' vocabulary acquisition. However, at present, collocations have been neglected in the Thai EFL teaching context. It will therefore be beneficial for Thai EFL learners if English collocations become the focus of vocabulary teaching and learning.

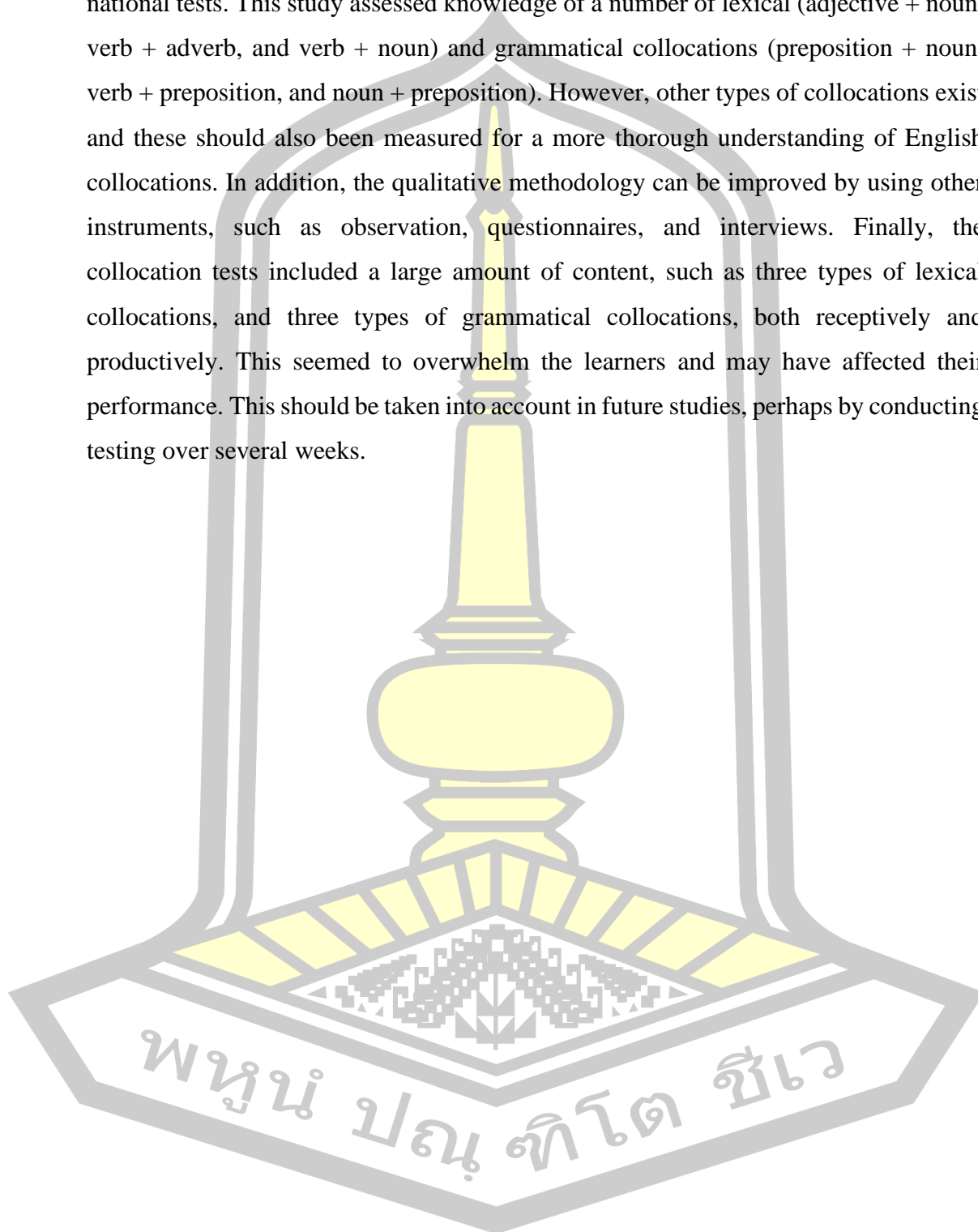
5.5 Limitations of the current research

An online data collection procedure was used in the current study due to the COVID-19 pandemic. Online collocation tests were conducted via the Microsoft team system and Google forms. It remains to be determined if the results can be replicated using an "in-person" study. Also, there are many types of lexical and grammatical collocations and it is difficult to test all of them. Furthermore, it should be noted that while the results of the current study may not generalize to other educational levels, this current study was restricted to the high school level. Also, the number of participants might affect the results of the current study. Indeed, the participants were from various knowledge levels and, given this variability, the sample size may not have been sufficient to generalize the results to the broad Thai EFL population. Finally, the current study did not use the same types of tests to measure the receptive and productive performance of lexical collocations and grammatical collocations. This may have also affected the results of the study.

5.6 Recommendations for future research

Future research may investigate collocation knowledge at different levels of education, such as the primary level, junior high school level, and university level. While this current study focused on testing English collocations, future studies may focus on other aspects, such as the instructions that can develop collocational knowledge, learners'

attitudes towards collocations, and analyzing English collocations in English books and national tests. This study assessed knowledge of a number of lexical (adjective + noun, verb + adverb, and verb + noun) and grammatical collocations (preposition + noun, verb + preposition, and noun + preposition). However, other types of collocations exist and these should also been measured for a more thorough understanding of English collocations. In addition, the qualitative methodology can be improved by using other instruments, such as observation, questionnaires, and interviews. Finally, the collocation tests included a large amount of content, such as three types of lexical collocations, and three types of grammatical collocations, both receptively and productively. This seemed to overwhelm the learners and may have affected their performance. This should be taken into account in future studies, perhaps by conducting testing over several weeks.



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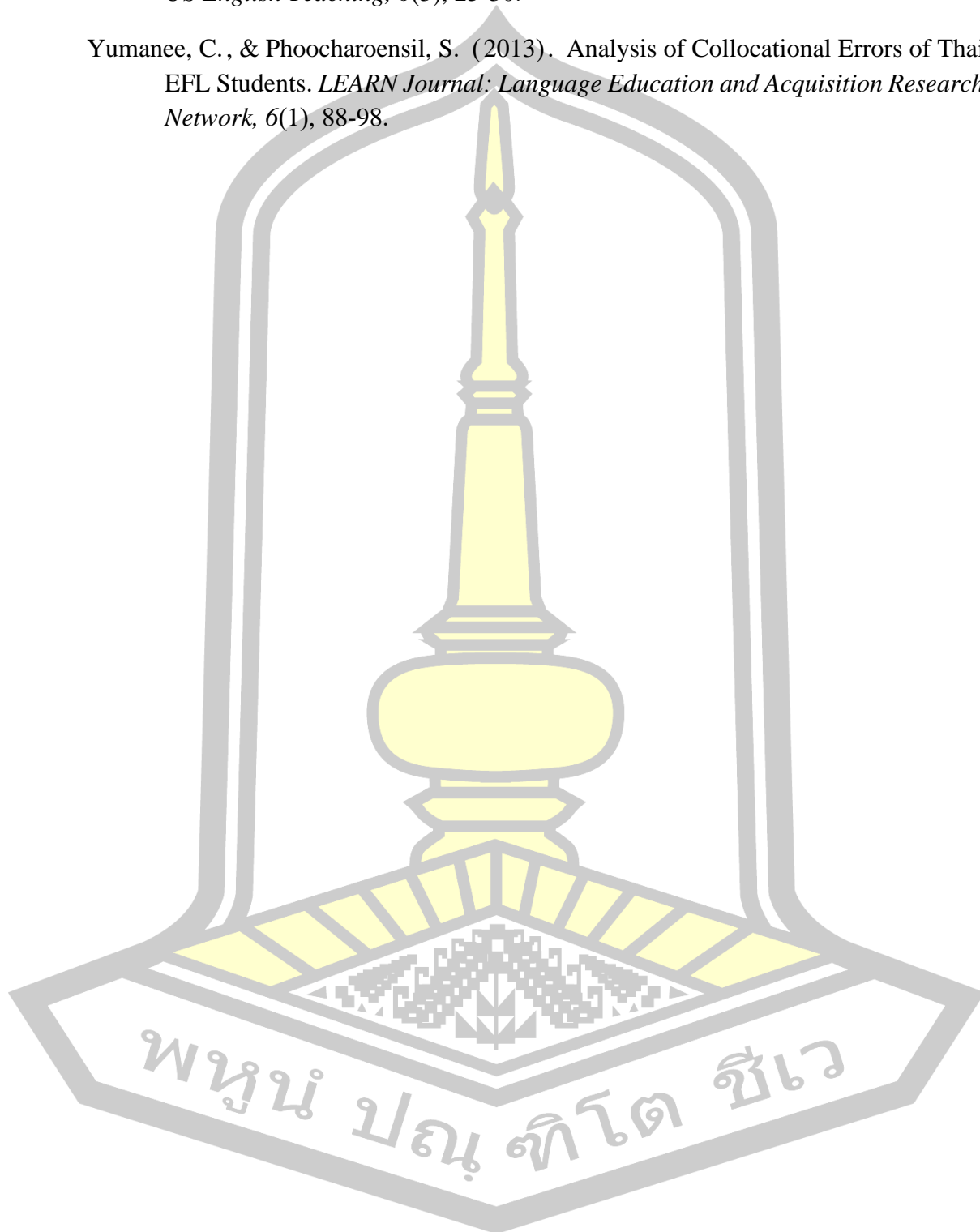
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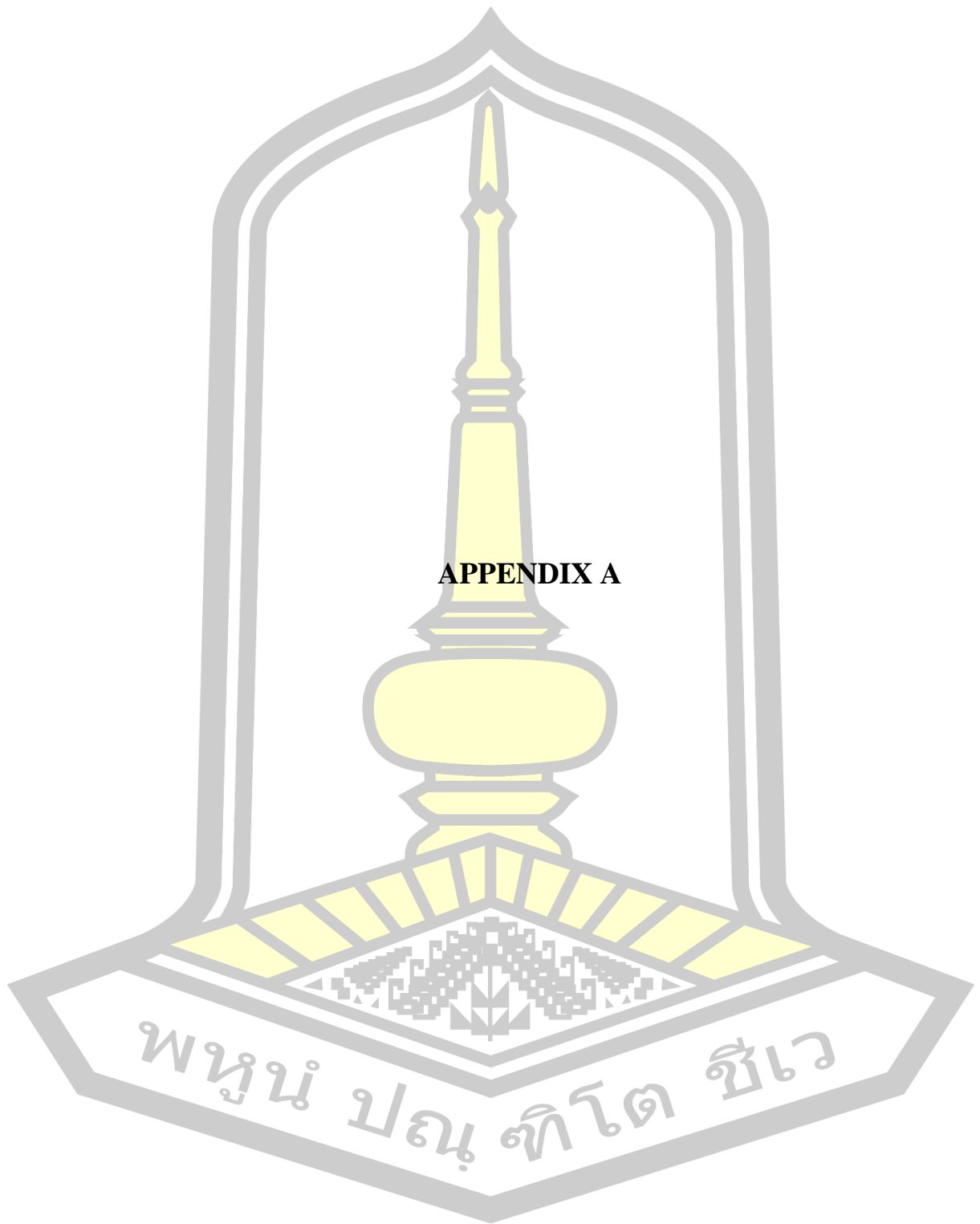
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APPENDIX A



The Collocation recall test

Directions: Write English vocabulary which is close to Thai meaning and can use with the given word. (One item may has more than one answer. The participant has to answer only one appropriate answer.)

คำชี้แจง: เขียนคำศัพท์ภาษาอังกฤษที่มีความหมายใกล้เคียงกับภาษาไทยและสามารถใช้กับคำที่กำหนดให้ได้
(คำตอบอาจมีมากกว่าหนึ่งคำตอบ กำหนดให้ผู้เข้าสอบตอบเพียงหนึ่งคำตอบที่เหมาะสม)

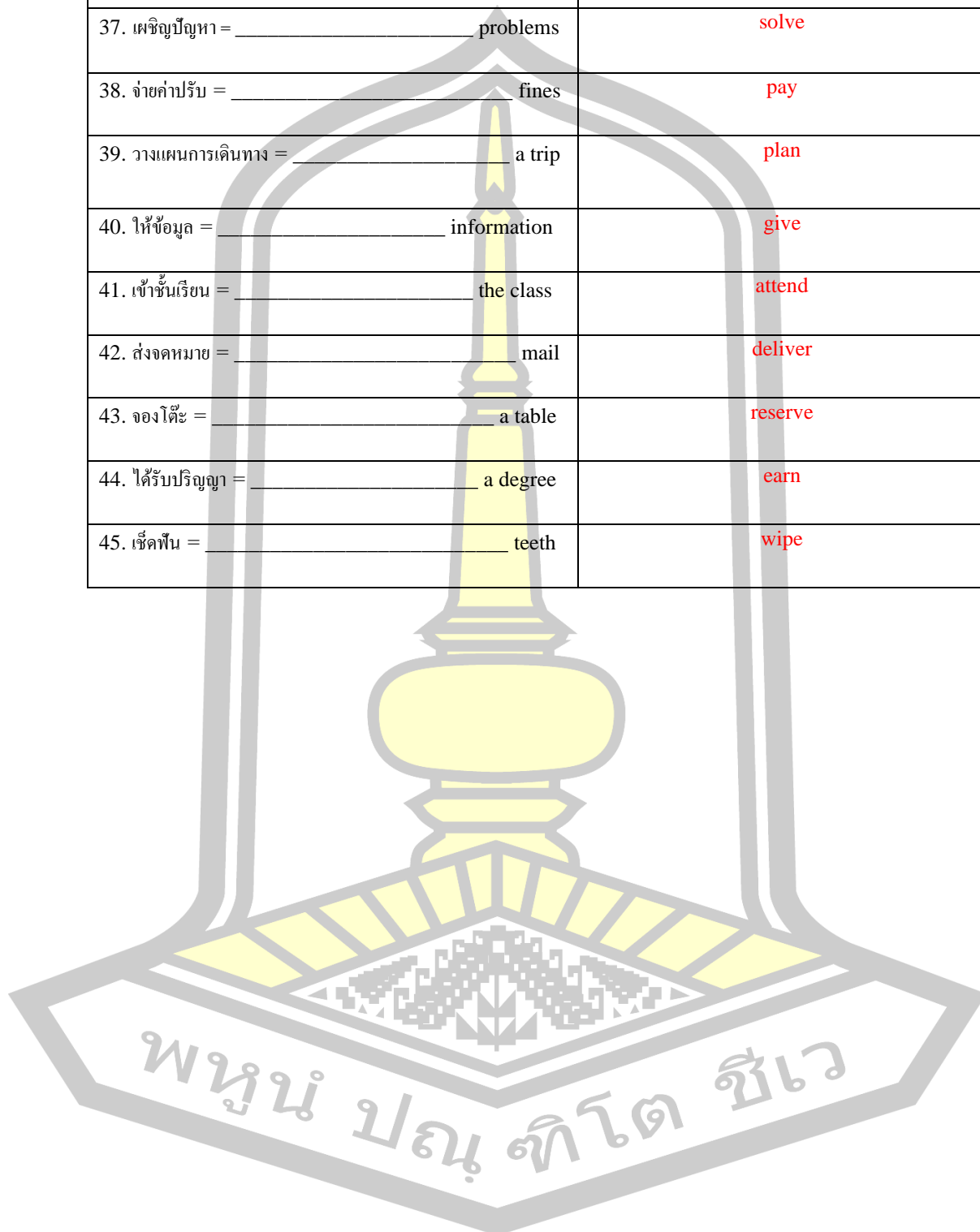
Example:

Items	Answer
คุณภาพแย่ = _____ quality	poor
กระซิบเบาๆ = whisper _____	softly
ทำการบ้าน = _____ homework	do

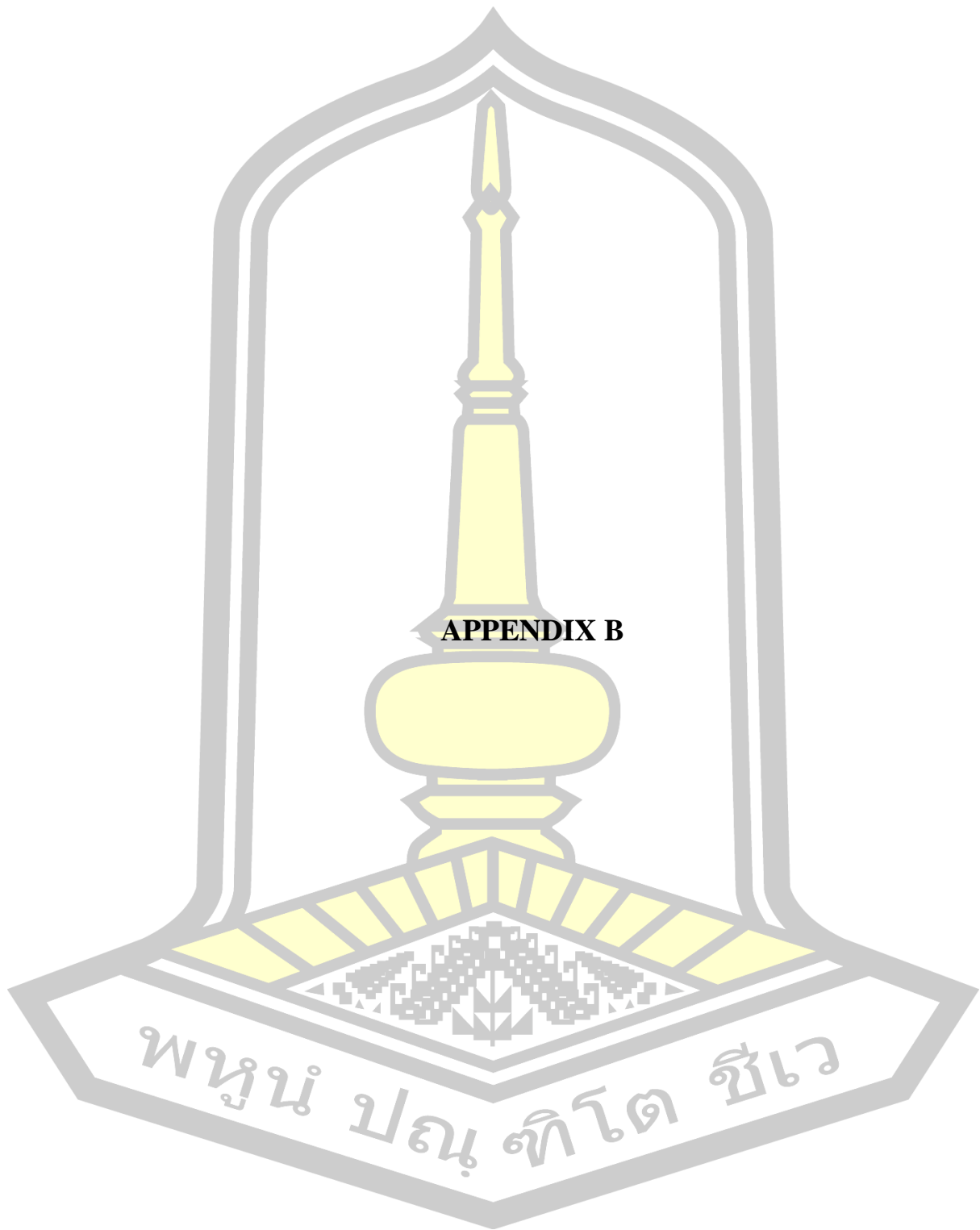
Items	Answer
1. ประเด็นสำคัญ = _____ issue	important
2. หลากหลายประเภท = _____ kinds	various
3. คนที่มีความรับผิดชอบ = _____ person	responsible
4. ภาระงานที่เป็นไปไม่ได้ = _____ task	impossible
5. อาการปวดหัวอย่างรุนแรง = _____ headache	terrible
6. ของที่มีราคาแพง = _____ item	expensive
7. เครื่องดนตรี = _____ instrument	musical
8. ของเล่นไม้ = _____ toy	wooden
9. ตู้เย็นที่ไม่ได้เสียบปลั๊ก = _____ refrigerator	unplugged
10. ของขวัญที่มีค่า = _____ gift	precious
11. คู่หูที่มีค่า = _____ partner	valued
12. ยานพาหนะที่เสียหาย = _____ vehicle	damaged
13. ดนตรีคลาสสิก = _____ music	classical

14. ลิ้นที่เหนียว = _____ tongue	sticky
15. ปลาแซลมอนย่าง = _____ salmon	grilled
16. หยุดทันทีทันใด = stop _____	immediately
17. เห็นอย่างชัดเจน = see _____	clearly
18. ค้นพบเมื่อเร็วๆ นี้ = discover _____	recently
19. พัฒนาอย่างเต็มที่ = develop _____	fully
20. ส่งผลโดยตรง = affect _____	directly
21. เห็นด้วยทั้งหมด = agree _____	completely
22. พิจารณาอย่างจริงจัง = consider _____	seriously
23. ยอมรับโดยทั่วไป = accept _____	generally
24. รับประทานอาหารเหมาะสม = eat _____	properly
25. มาถึงในไม่ช้า = arrive _____	shortly
26. ปอกเปลือกอย่างระมัดระวัง = peel _____	carefully
27. ช่วยเหลือมากมาย = help _____	greatly
28. ประพฤติตัวที่แตกต่าง = behave _____	differently
29. ทำความสะอาดอย่างอ่อนโยน = clean _____	gently
30. พูดเบาๆ = say _____	softly
31. แนะนำเส้นทาง = _____ directions	get
32. ปวดหัว = _____ a headache	get
33. ทำข้อสอบ = _____ an exam	take
34. กล่าวสุนทรพจน์ = _____ a speech	give
35. บรรยาย = _____ a lecture	give

36. เปลี่ยนรูปลักษณ์ = _____ appearance	change
37. เผชิญปัญหา = _____ problems	solve
38. จ่ายค่าปรับ = _____ fines	pay
39. วางแผนการเดินทาง = _____ a trip	plan
40. ให้ข้อมูล = _____ information	give
41. เข้าชั้นเรียน = _____ the class	attend
42. ส่งจดหมาย = _____ mail	deliver
43. จองโต๊ะ = _____ a table	reserve
44. ได้รับปริญญา = _____ a degree	earn
45. เช็ดฟัน = _____ teeth	wipe



APPENDIX B




The COLLEX test

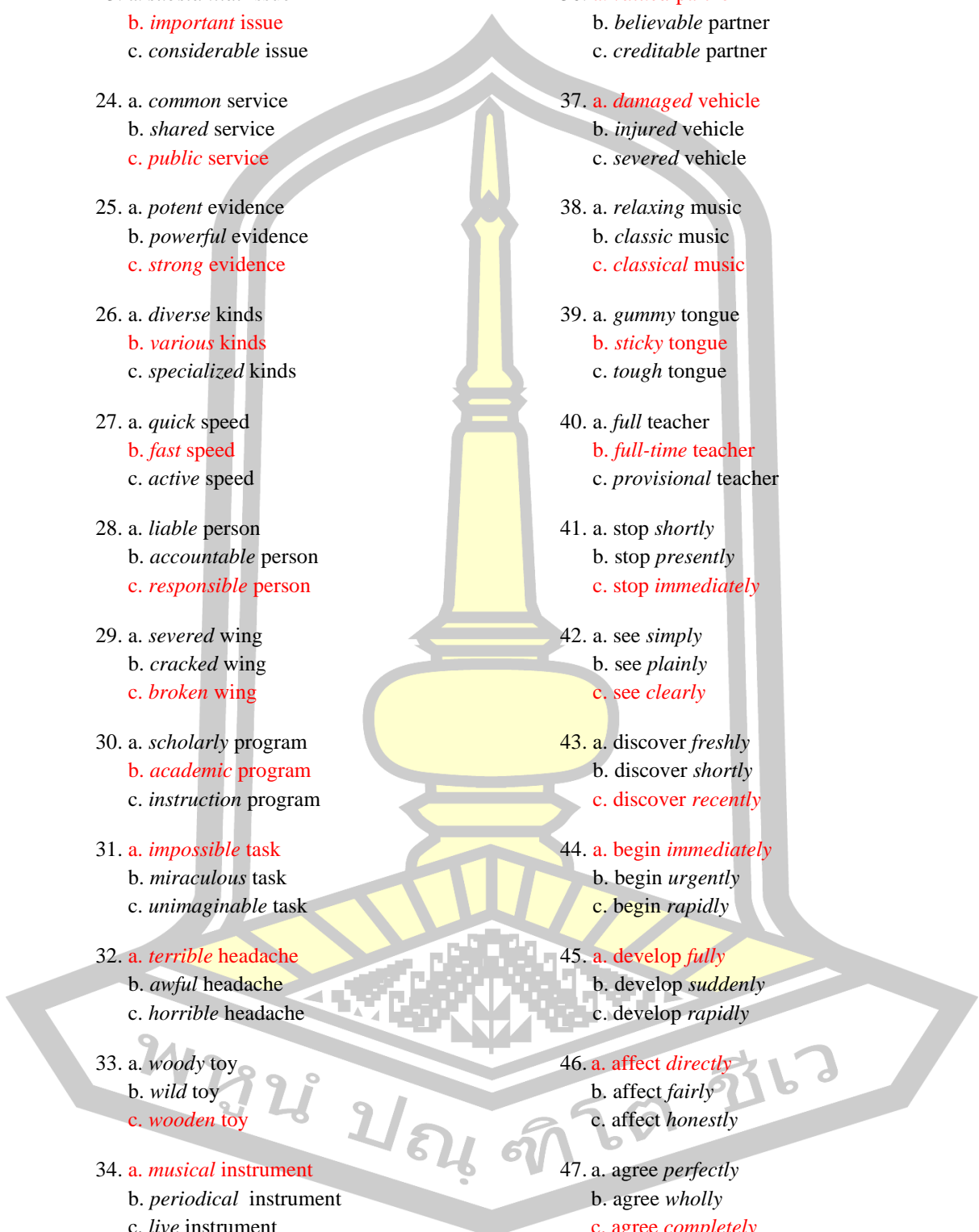
Directions: Choose the best answer.

คำชี้แจง: เลือกคำตอบที่ถูกต้องที่สุด

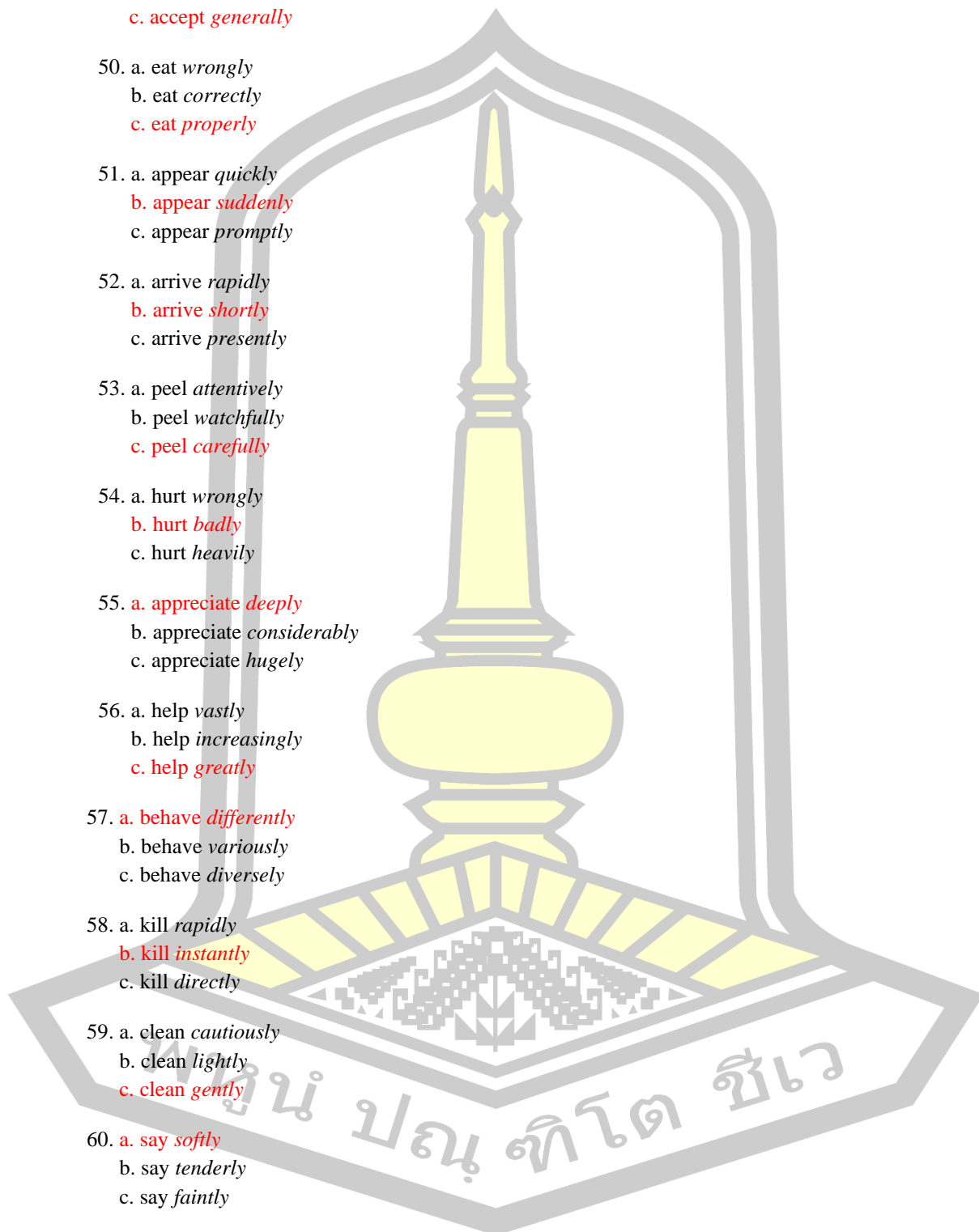
Example:

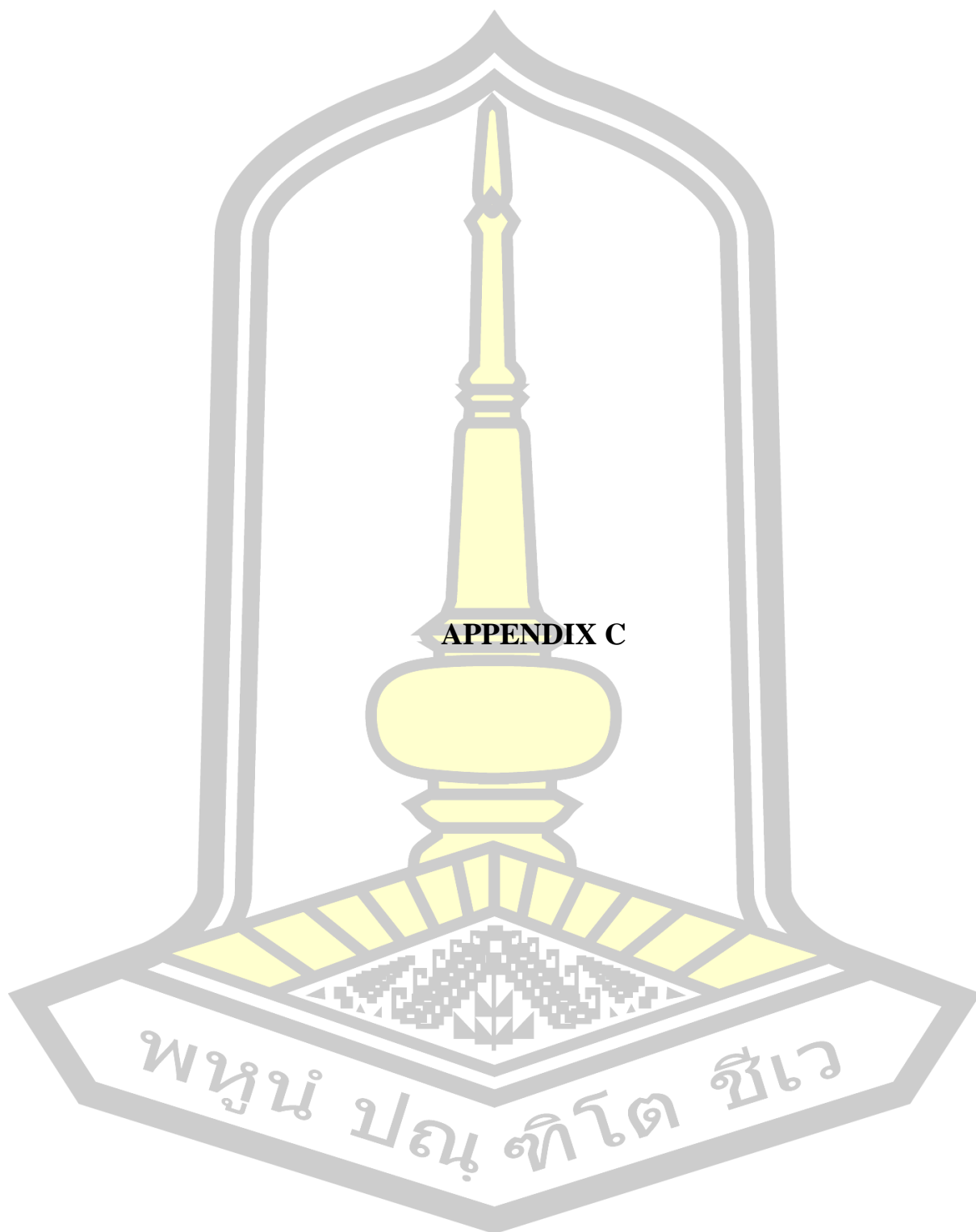
- a. *strong* coffee
- b. *powerful* coffee
- c. *energetic* coffee

- 
1. a. *get* directions
b. *go* directions
c. *deliver* directions
 2. a. *get* a headache
b. *gain* a headache
c. *suffer* a headache
 3. a. *take* an exam
b. *end* an exam
c. *study* an exam
 4. a. *give* a speech
b. *provide* a speech
c. *talk* a speech
 5. a. *make* pleasure
b. *earn* pleasure
c. *give* pleasure
 6. a. *show* a lecture
b. *make* a lecture
c. *give* a lecture
 7. a. *modify* appearance
b. *transform* appearance
c. *change* appearance
 8. a. *meet* problems
b. *oppose* problems
c. *face* problems
 9. a. *take* sports
b. *play* sports
c. *attend* sports
 10. a. *give* fines
b. *take* fines
c. *pay* fines
 11. a. *create* a trip
b. *plan* a trip
c. *do* a trip
 12. a. *provide* information
b. *change* information
c. *take* information
 13. a. *make* menu
b. *take* menu
c. *offer* menu
 14. a. *complete* the task
b. *end* the task
c. *succeed* the task
 15. a. *attend* conversation
b. *join* conversation
c. *involve* conversation
 16. a. *attend* the class
b. *get* the class
c. *come* the class
 17. a. *order* mail
b. *deliver* mail
c. *take* mail
 18. a. *hold* a table
b. *reserve* a table
c. *engage* a table
 19. a. *reach* a degree
b. *acquire* a degree
c. *earn* a degree
 20. a. *mop* teeth
b. *rub* teeth
c. *wipe* teeth
 21. a. *energetic* music
b. *fresh* music
c. *live* music
 22. a. *long* trip
b. *prolonged* trip
c. *large* trip

- 
23. a. *substantial* issue
b. *important* issue
c. *considerable* issue
24. a. *common* service
b. *shared* service
c. *public* service
25. a. *potent* evidence
b. *powerful* evidence
c. *strong* evidence
26. a. *diverse* kinds
b. *various* kinds
c. *specialized* kinds
27. a. *quick* speed
b. *fast* speed
c. *active* speed
28. a. *liable* person
b. *accountable* person
c. *responsible* person
29. a. *severed* wing
b. *cracked* wing
c. *broken* wing
30. a. *scholarly* program
b. *academic* program
c. *instruction* program
31. a. *impossible* task
b. *miraculous* task
c. *unimaginable* task
32. a. *terrible* headache
b. *awful* headache
c. *horrible* headache
33. a. *woody* toy
b. *wild* toy
c. *wooden* toy
34. a. *musical* instrument
b. *periodical* instrument
c. *live* instrument
35. a. *high* gift
b. *precious* gift
c. *cherished* gift
36. a. *valued* partner
b. *believable* partner
c. *creditable* partner
37. a. *damaged* vehicle
b. *injured* vehicle
c. *severed* vehicle
38. a. *relaxing* music
b. *classic* music
c. *classical* music
39. a. *gummy* tongue
b. *sticky* tongue
c. *tough* tongue
40. a. *full* teacher
b. *full-time* teacher
c. *provisional* teacher
41. a. stop *shortly*
b. stop *presently*
c. stop *immediately*
42. a. see *simply*
b. see *plainly*
c. see *clearly*
43. a. discover *freshly*
b. discover *shortly*
c. discover *recently*
44. a. begin *immediately*
b. begin *urgently*
c. begin *rapidly*
45. a. develop *fully*
b. develop *suddenly*
c. develop *rapidly*
46. a. *affect directly*
b. affect *fairly*
c. affect *honestly*
47. a. agree *perfectly*
b. agree *wholly*
c. agree *completely*
48. a. consider *sincerely*
b. consider *seriously*
c. consider *dangerously*

49. a. accept *ordinarily*
b. accept *occasionally*
c. accept *generally*
50. a. eat *wrongly*
b. eat *correctly*
c. eat *properly*
51. a. appear *quickly*
b. appear *suddenly*
c. appear *promptly*
52. a. arrive *rapidly*
b. arrive *shortly*
c. arrive *presently*
53. a. peel *attentively*
b. peel *watchfully*
c. peel *carefully*
54. a. hurt *wrongly*
b. hurt *badly*
c. hurt *heavily*
55. a. appreciate *deeply*
b. appreciate *considerably*
c. appreciate *hugely*
56. a. help *vastly*
b. help *increasingly*
c. help *greatly*
57. a. behave *differently*
b. behave *variously*
c. behave *diversely*
58. a. kill *rapidly*
b. kill *instantly*
c. kill *directly*
59. a. clean *cautiously*
b. clean *lightly*
c. clean *gently*
60. a. say *softly*
b. say *tenderly*
c. say *faintly*





The CONTRIX test

Directions: Choose the appropriate answers to complete the given sentence.

คำชี้แจง: เลือกคำตอบที่เหมาะสมเพื่อเติมประโยคให้สมบูรณ์

Example: My father has ____A____ ____B____ the computer.

- A.
1. annoyances
 2. disadvantages
 3. difficulties

- B.
1. with
 2. of
 3. about

1. The computer just crashed and there may be a bug ____A____ ____B____.

- A.
1. for
 2. at
 3. in

- B.
1. the program
 2. the function
 3. the application

2. Who was she dancing with ____A____ ____B____ last night?

- A.
1. at
 2. for
 3. in

- B.
1. the reception
 2. the class
 3. the party

3. He drove so fast that I really felt my life was ____A____ ____B____.

- A.
1. about
 2. in
 3. to

- B.
1. hazard
 2. danger
 3. risk

4. The city's high-speed transit system runs mainly ____A____ ____B____.

- A.
1. at
 2. in
 3. above

- B.
1. the water
 2. the ground
 3. the sea

5. Some animals can live both ____A____ ____B____ and in water.

- A.
1. on
 2. at
 3. above

- B.
1. air
 2. river
 3. land

6. Life ____A____ the 19th ____B____ was very different from what it is now.

- A.
1. at
 2. on
 3. in

- B.
1. year
 2. century
 3. month

7. ____A____ ____B____ released today, the Department of Health mentioned everyone should wear a mask because of COVID19.

- A.
1. in
 2. about
 3. on

- B.
1. a talk
 2. a statement
 3. a speech

8. I was sitting ____A____ ____B____ of my very nice house when an old man approached and said to my mom.

- A.
1. on
 2. in
 3. about

- B.
1. the toilet
 2. the garden
 3. the road

9. We will start the exercise ____A____ ____B____ and you can finish it for homework.

- A.
1. at
 2. on
 3. in

- B.
1. class
 2. room
 3. subject

10. The flowers do well ____A____ sandy ____B____.

- A.
1. in
2. with
3. into

- B.
1. water
2. fertilizer
3. soil

11. During Summer trip at Hua Hin beach, the children played all day ____A____ ____B____.

- A.
1. on
2. in
3. above

- B.
1. the sand
2. the soil
3. the beach

12. This morning, she rises ____A____ ____B____.

- A.
1. on
2. in
3. at

- B.
1. dawn
2. night
3. daybreak

13. ____A____ ____B____ at the police station, they were taken to an interview room.

- A.
1. with
2. on
3. in

- B.
1. going
2. arrival
3. departure

14. He hates travelling ____A____ ____B____ because he is afraid of heights.

- A.
1. by
2. on
3. in

- B.
1. airplane
2. car
3. boat

15. In summer, meat easily goes bad. So, you must keep it ____A____ ____B____.

- A.
1. on
2. above
3. in

- B.
1. the cupboard
2. the kitchen
3. the refrigerator

16. Although today I took an annual leave, I still was ____A____ ____B____ an emergency meeting this morning.

- A.
1. **called**
 2. phoned
 3. rang

- B.
1. from
 2. **to**
 3. out

17. We only ____A____ ____B____ six guests, but then someone brought a friend.

- A.
1. decided
 2. had
 3. **planned**

- B.
1. on
 2. to
 3. **for**

18. Firstly, we will ____A____ ____B____ a brief discussion of the problems.

- A.
1. take
 2. end
 3. **begin**

- B.
1. at
 2. on
 3. **with**

19. We plan to spend our holiday in Phuket and we decide to ____A____ ____B____ car.

- A.
1. depart
 2. **travel**
 3. leave

- B.
1. with
 2. **by**
 3. in

20. During the exam, you are not ____A____ ____B____ talk.

- A.
1. admitted
 2. **allowed**
 3. accepted

- B.
1. in
 2. **to**
 3. on

พณภูมิ ปณภูมิ โต ชีเว

21. I have ____A____ ____B____ a new job with the local newspaper

- A.
1. called
 2. retired
 3. applied

- B.
1. over
 2. to
 3. for

22. Whenever something goes wrong, everyone ____A____ ____B____ me.

- A.
1. blames
 2. accuses
 3. escapes

- B.
1. about
 2. on
 3. with

23. Hospitals are being ____A____ ____B____ close departments because of lack of money.

- A.
1. asked
 2. forced
 3. reduced

- B.
1. into
 2. to
 3. in

24. Candidates who are successful in the written test will be ____A____ ____B____ an interview.

- A.
1. invited
 2. required
 3. talked

- B.
1. for
 2. on
 3. at

25. Although she is not good at dancing, she tries to ____A____ ____B____ watching others.

- A.
1. learn
 2. study
 3. practice

- B.
1. in
 2. from
 3. with

26. Companies have to ____A____ ____B____ the changing economic climate.

- A.
1. change
 2. depend
 3. respond

- B.
1. to
 2. as
 3. with

27. This house is too expensive. That is why they ____A____ ____B____ take a long time to make a decision.

- A.
1. similar
 2. like
 3. seem

- B.
1. to
 2. with
 3. about

28. She ____A____ ____B____ her age because she wanted to enter the pub.

- A.
1. talked
 2. lied
 3. said

- B.
1. on
 2. to
 3. about

29. He faithfully ____A____ ____B____ call me every week.

- A.
1. promises
 2. denies
 3. allows

- B.
1. with
 2. for
 3. to

30. The accident occurs and they ____A____ ____B____ the road because they drive too fast.

- A.
1. run
 2. slide
 3. walk

- B.
1. along
 2. into
 3. down

31. She lost the ____A____ ____B____ her legs in a car accident.

- A.
1. method
 2. advantage
 3. use

- B.
1. of
 2. with
 3. about

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32. After the accident I was in a ____A____ ____B____ shock.

- A.
1. statement
 2. situation
 3. state

- B.
1. in
 2. of
 3. at

33. Exercise has become ____A____ ____B____ my daily routine.

- A.
1. unit
 2. piece
 3. part

- B.
1. on
 2. by
 3. of

34. The camping area has ready access to water, in ____A____ ____B____ fire.

- A.
1. case
 2. state
 3. complaint

- B.
1. of
 2. on
 3. with

35. Watching TV on the weekend is really good. What are your ____A____ ____B____ this weekend?

- A.
1. plans
 2. works
 3. relaxing

- B.
1. with
 2. to
 3. for

36. The first chapter reviews the ____A____ ____B____ how children learn language.

- A.
1. situation
 2. evidence
 3. accident

- B.
1. with
 2. at
 3. on

37. Many Mexicans regard the United States as a ____ milk and honey.

- A.
1. kingdom
 2. land
 3. town

- B.
1. about
 2. in
 3. of

38. He died last week after a long _____ cancer.

- A. 1. flight
2. competition
3. fight

- B. 1. between
2. with
3. in

39. There were so many different _____ bread that I did not know which to buy.

- A. 1. methods
2. ways
3. types

- B. 1. for
2. in
3. of

40. Billy's work at school has shown _____ improvement this year.

- A. 1. signs
2. alarms
3. notices

- B. 1. at
2. in
3. of

41. The _____ picture on our television is not good.

- A. 1. quantity
2. quality
3. ability

- B. 1. with
2. at
3. of

42. Some theatres receive a small _____ funding from the state.

- A. 1. amount
2. account
3. engagement

- B. 1. of
2. to
3. with

43. Can you give me _____ the town center?

- A. 1. signs
2. vehicles
3. directions

- B. 1. to
2. from
3. on

44. Crops are sprayed with chemicals to prevent _____ insects.

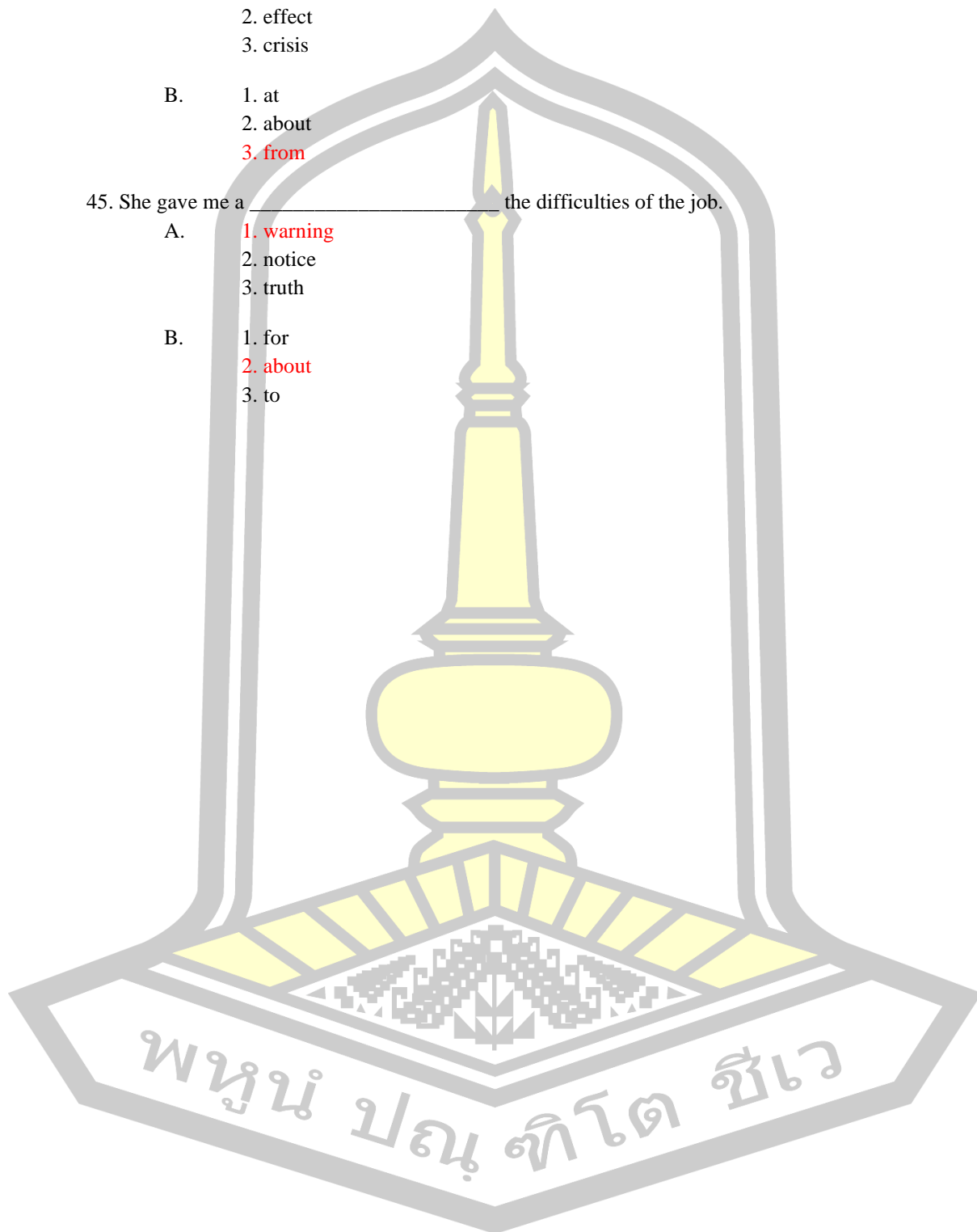
- A. 1. damage
2. effect
3. crisis

- B. 1. at
2. about
3. from

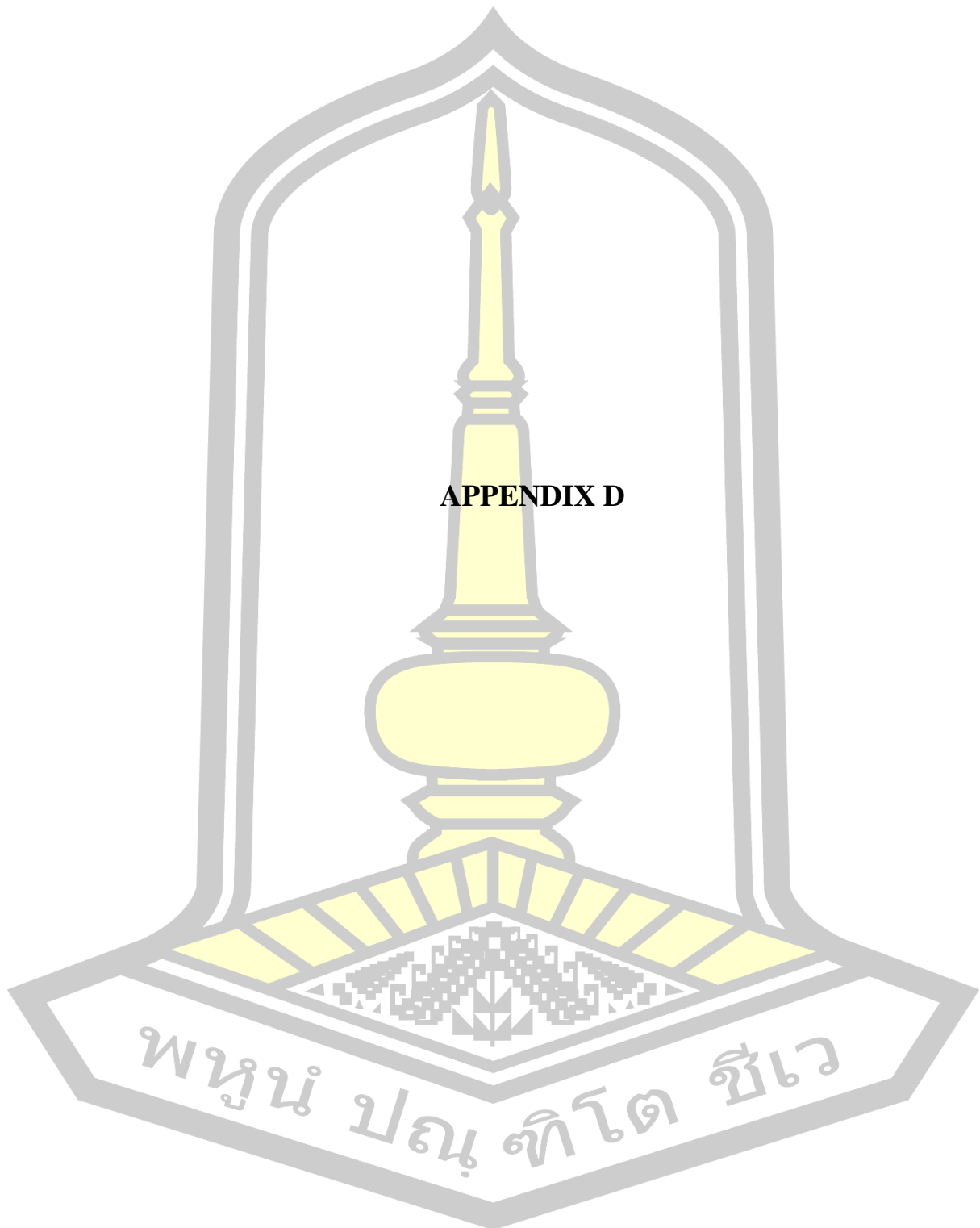
45. She gave me a _____ the difficulties of the job.

- A. 1. warning
2. notice
3. truth

- B. 1. for
2. about
3. to



APPENDIX D



The COLLMATCH test

Directions: Choose *Yes* if the given word is correct or choose *No* if it is incorrect.

คำชี้แจง: เลือก Yes ถ้าคำที่กำหนดให้ถูกต้อง หรือเลือก No ถ้าคำที่กำหนดให้ไม่ถูกต้อง

Example: problem <i>about</i>	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no	<i>at the job</i>	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no	<i>start from</i>	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
1. amount <i>of</i>	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no	2. use <i>about</i>	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no	3. state <i>of</i>	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
				4. part <i>of</i>	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
5. case <i>of</i>	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no	6. study <i>on</i>	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no	7. reason <i>in</i>	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
				8. plan <i>about</i>	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
9. evidence <i>on</i>	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no	10. land <i>of</i>	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no	11. fight <i>on</i>	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
				12. defense <i>with</i>	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
13. type <i>of</i>	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no	14. sign <i>about</i>	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no	15. treatment <i>about</i>	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
				16. damage <i>on</i>	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
17. mayor <i>in</i>	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no	18. danger <i>about</i>	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no	19. frequency <i>of</i>	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
				20. treasure <i>on</i>	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
21. <i>above</i> the ground	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no	22. <i>on</i> the state	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no	23. <i>in</i> the program	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
				24. <i>in</i> the party	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no

25. *on* the court

X	yes
	no

26. *in* the area

X	yes
	no

27. *at* class

	yes
X	no

28. *in* the land

	yes
X	no

29. *in* the century

X	yes
	no

30. *in* a statement

X	yes
	no

31. *at* the conference

X	yes
	no

32. *on* the garden

	yes
X	no

33. *on* danger

	yes
X	no

34. *in* the soil

X	yes
	no

35. *on* the sand

X	yes
	no

36. *at* the kingdom

	yes
X	no

37. *in* dawn

	yes
X	no

38. *on* arrival

X	yes
	no

39. *by* airplane

X	yes
	no

40. *on* the countryside

	yes
X	no

41. allow *within*

	yes
X	no

42. call *to*

X	yes
	no

43. plan *in*

	yes
X	no

44. begin *with*

X	yes
	no

45. travel *by*

X	yes
	no

46. apply *to*

X	yes
	no

47. blame *about*

	yes
X	no

48. force *with*

	yes
X	no

49. study *for*

X	yes
	no

50. invite *in*

	yes
X	no

51. respond *in*

	yes
X	no

52. seem *for*

	yes
X	no

53. jail *for*

X	yes
	no

54. jump *above*

	yes
X	no

55. lie *about*

X	yes
	no

56. suffer *on*

	yes
X	no

57. promise *for*

	yes
X	no

58. slide *along*

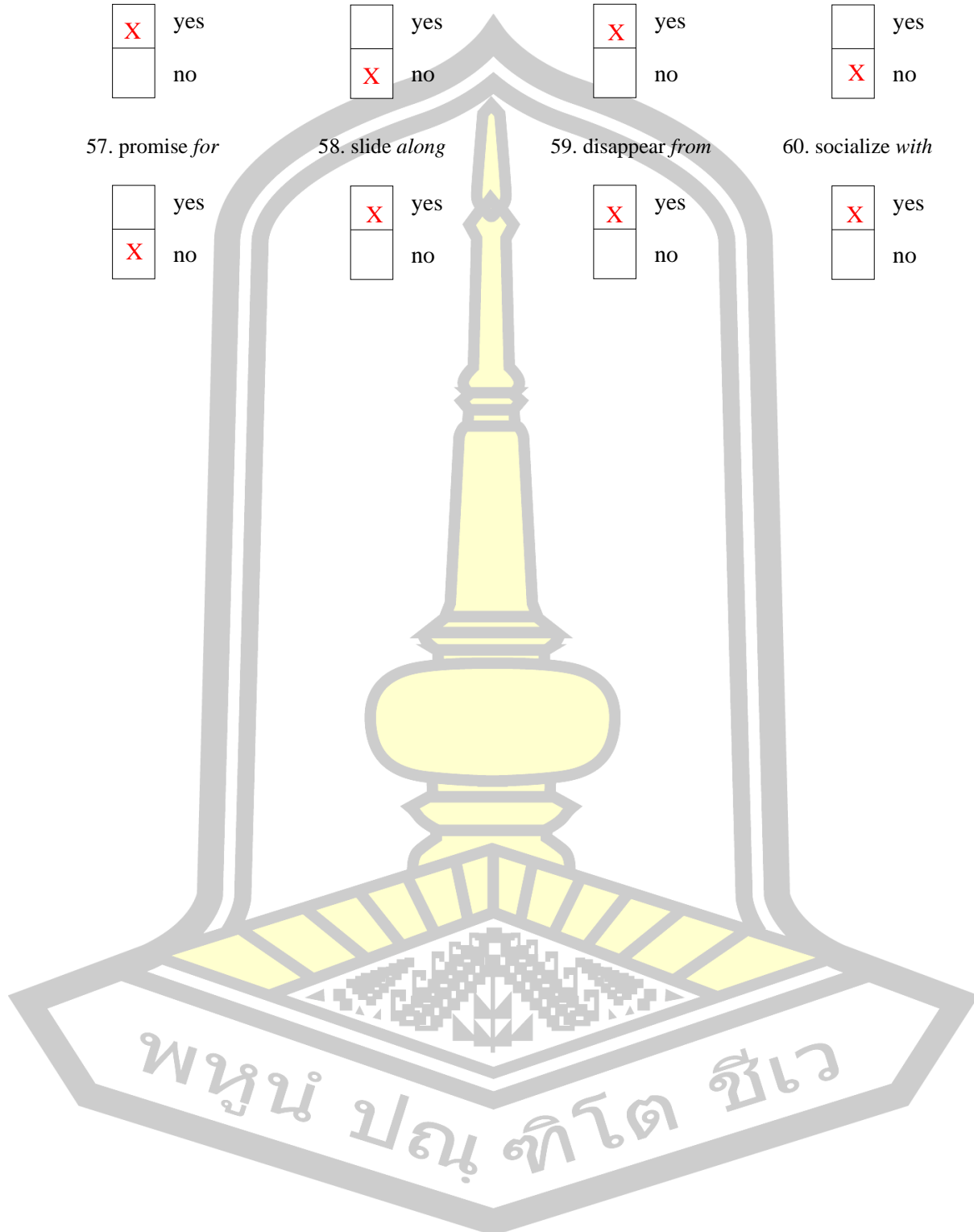
X	yes
	no

59. disappear *from*

X	yes
	no

60. socialize *with*

X	yes
	no



BIOGRAPHY

NAME Miss Soraya Jeensuk

DATE OF BIRTH September 16, 1993

PLACE OF BIRTH Khonkaen, Thailand

ADDRESS 599/111 Somwangsangwan village, Naimuang Sub-district, Banphai District, Khonkaen Province, 40110

POSITION Area Development Manager

PLACE OF WORK Kumon (Thailand) Co., Ltd.

EDUCATION 2009 Junior High School in Mahasarakham University
Demonstration (Secondary)
2012 Senior High School in Mahasarakham University
Demonstration (Secondary)
2015 Bachelor of Education (B.Ed.) in English
Mahasarakham University

