



Ways to Support Thai University Students' Receptive and Productive Vocabulary Knowledge

แนวทางการส่งเสริมการเรียนรู้คำศัพท์เชิงการรับรู้และคำศัพท์เชิงการใช้งาน
แก่นักศึกษาไทย

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บทคัดย่อ

งานวิจัยหลายงานได้ศึกษาความรู้ด้านคำศัพท์เชิงการรับรู้และคำศัพท์เชิงการใช้งานของนักศึกษาไทย และผลของการศึกษาชี้ให้เห็นว่านักศึกษามีความรู้คำศัพท์ภาษาอังกฤษที่ไม่เพียงพอทั้งด้านรูป ความหมาย และการใช้ เช่น ความรู้เกี่ยวกับคำเติม (affixes) คำที่สร้างจากคำอื่น (derivatives) คำศัพท์ทั่วไป (general vocabulary) คำศัพท์วิชาการ (academic vocabulary) และคำปรากฏร่วม (collocation) ปัญหานี้อาจเกิดจากการหลายปัจจัย เช่น ภาษาแม่ที่ไม่ได้มาจากภาษาละติน (non-Latinate L1) การที่ไม่ได้เห็นหรือได้ยินคำศัพท์บ่อยนัก การที่ไม่มีโอกาสได้ใช้ภาษาอังกฤษ การฝึกเพื่อการจำศัพท์และความคล่องแคล่วที่ไม่เพียงพอ การที่เอกสารการสอนไม่ได้ออกแบบให้เข้ากับลำดับการรับภาษาที่สอง สื่อการสอนที่ไม่น่าสนใจ และการขาดแรงจูงใจในการเรียนภาษาอังกฤษ นักวิจัยเหล่านี้ได้เสนอแนวทางเพื่อแก้ปัญหาเหล่านี้ อาทิ การสอนด้านต่าง ๆ ที่จำเป็นของคำศัพท์แบบเอ็กซพลิซิท (explicit teaching method) การส่งเสริมให้นักศึกษาได้จดจ่ออยู่กับความหมายในขณะที่ฟัง พูด อ่าน และเขียน การให้นักศึกษาได้ฝึกคำศัพท์ที่ได้เรียน การพัฒนาสื่อการสอนที่น่าสนใจและที่เน้นคำศัพท์ที่ง่ายต่อการเรียนรู้เพื่อกระตุ้นความสนใจนักศึกษา และการแนะนำกลวิธีการเรียนรู้คำศัพท์ที่เป็นประโยชน์ บทความนี้ได้รวบรวมวิธีการสอนต่าง ๆ นี้เพื่อให้ผู้สอนสามารถนำมาปรับใช้ในห้องเรียนเพื่อที่จะพัฒนาการเรียนการสอนภาษาอังกฤษให้ผู้เรียนในประเทศไทย บทความยังชี้ให้เห็นว่าวิธีการเหล่านี้ส่วนมากสอดคล้องกับกรอบการเรียนภาษาทั้งสี่สาย

ที่เสนอแนะโดยศาสตราจารย์ พอล เนชั่น อันได้แก่ การเรียนโดยเน้นหลักภาษา การรับภาษาที่เน้นความหมาย การใช้ภาษาที่เน้นความหมาย และการพัฒนาความคล่องแคล่ว (Nation, 2022) ทั้งสี่สายนี้ได้ถูกนำไปใช้ในหลายบริบทและทำให้ต่อการเรียนรู้คำศัพท์ภาษาอังกฤษดีขึ้น ดังนั้น ในบริบทไทย กรอบการเรียนรู้ภาษาทั้งสี่สายนี้พร้อมกับวิธีการอื่นที่จะเสนอในบทความนี้ เป็นหลักในการสอนเพื่อพัฒนาความรู้ด้านคำศัพท์ของนักศึกษา ซึ่งก็จะนำไปสู่ผลสำเร็จของการเรียนภาษาอังกฤษ

คำสำคัญ: คำศัพท์เชิงการรับรู้ คำศัพท์เชิงการใช้งาน ด้านของความรู้ทางคำศัพท์ กรอบการเรียนรู้ภาษาทั้งสี่สาย

Abstract

Many studies have explored Thai university learners' receptive and productive vocabulary knowledge. The findings indicate that they have insufficient knowledge of English word form, meaning, and use such as affixes and derivatives, general and academic vocabulary, and collocations. This might result from various factors such as non-Latinate mother tongue, infrequent encounters, a lack of opportunities to use the language, insufficient vocabulary drills for retention and fluency, teaching materials incompatible with learners' acquisition order, uninteresting teaching tools, and a lack of motivation. These researchers proposed ways to solve the problems, e.g. explicitly teaching the vocabulary aspects needed, encouraging learners to focus on meaning when listening, speaking, reading, and writing, letting them drill the words learned, developing interesting teaching materials focusing on easy-to-learn vocabulary to motivate learners, and introducing useful vocabulary learning strategies. This article has gathered these teaching methods so that teachers can apply in class to promote the English language teaching and learning in Thailand. This article also points out that most of these approaches agree with the four strands suggested by Nation (2022), which are language-focused learning, meaning-focused input, meaning-focused output, and fluency development. These four strands have been applied in many contexts and they lead to better vocabulary learning. Therefore, in Thai context, the four strands together with some other approaches to be presented in this article can

be considered as a pedagogical principle for EFL teachers to improve learners' vocabulary knowledge, which then leads to success in learning English.

Keywords: receptive vocabulary knowledge, productive vocabulary knowledge, vocabulary knowledge aspects, four strands in language learning

Introduction

Studying in an academic environment in Thai (EFL) context, Thai university students are sometimes assigned to read academic texts and need to listen to some English academic lectures. Occasionally, they also need to speak or write academically. It is important that Thai university students equip themselves with both general vocabulary and academic vocabulary for comprehension and language production in that academic texts and lectures consist of these two groups of vocabulary. Academic words cover approximately 9% of the running words of any academic text, and the majority of the running words in an academic text are general words, especially the most frequently used 2,000 words (Nation, 2013).

Apart from school success, knowledge of general and academic vocabulary also promotes and relates to overall language performance. It correlates reading comprehension (Ha, 2021; Moon, 2017), listening (Cheng & Matthews, 2018; Ha, 2021; Teng, 2016), writing ability (Asaad & Shabdin, 2021; Kilic, 2019), and speaking competence (Kilic, 2019; Uchihara & Clenton, 2022). This is because vocabulary is the most fundamental unit of a language (Badger, 2018; Nation, 2022; Read, 2000; Schmitt & Schmitt, 2020). It carries meanings and can be learned and used receptively and productively (Omidian et al., 2019; Zhong, 2018). A lack of vocabulary knowledge or insufficient vocabulary knowledge, therefore, can affect learners' language proficiency and performance. Insufficient vocabulary knowledge makes the words or the sentences they see or hear incomprehensible; it also makes learners stumble trying to retrieve words to express their ideas and use inappropriate or incorrect words in communication.

Despite the awareness of the importance of vocabulary knowledge, Thai students still have insufficient vocabulary knowledge. This, in turn, affects their overall language performance. According to EF English Proficiency Index (2021 Edition), based on an online, adaptive English reading and listening test results of two million adults in 112 countries, Thailand ranked the 100th and was classified in the very low proficiency group even though the English language is one of the required courses for Thai students from primary to tertiary education.

Thai learners' insufficient vocabulary knowledge

Knowing a word involves knowing various aspects of a word (Badger, 2018; Jiang, 2000; Schmitt, 2000; Thornbury, 2002). Nation's (2013, 2022) taxonomy seems to be the most comprehensive one showing nine vocabulary aspects from three main categories. All the nine aspects are divided into receptive knowledge (R) and productive knowledge (P) as shown in Table 1.

Vocabulary Knowledge Aspects	R/P	Explanations
Form		
spoken form	R	What does the word sound like?
	P	How is the word pronounced?
written form	R	What does the word look like?
	P	How is the word written and spelled?
word parts	R	What parts are recognizable in this word?
	P	What word parts are needed to express the meaning?
Meaning		
form and meaning	R	What meaning does this word form signal?
	P	What word form can be used to express this meaning?
concepts and referents	R	What is included in the concept?
	P	What items can the concept refer to?
associations	R	What other words does this make us think of?
	P	What other words could we use instead of this one?
Use		
grammatical functions	R	In what patterns does the word occur?
	P	In what pattern must we use this word?
collocations	R	What words or types of words occur with this one?
	P	What words or types of words must we use with this one?
constraints on use (register, frequency...)	R	Where, when, and how often would we expect to meet this word?
	P	Where, when, and how often can we use this word?

Table 1: Nation's (2022) taxonomy of vocabulary knowledge aspects

Based on Nation's (2022) taxonomy of vocabulary knowledge aspects, previous studies have been conducted to examine the knowledge of word form (derivatives and affixes) of Thai students (e.g., Kitikanan & Supantana, 2018; Sukying, 2018; Ward & Chuenjundaeng, 2009), knowledge of word meaning by assessing their receptive and/or productive vocabulary size (e.g., Mungkonwong & Wudthayagorn, 2017; Sungprakul, 2016), and knowledge of vocabulary use such as collocation (e.g., Dokchandra, 2019a; Nontasee & Sukying, 2020; Zhang, 2022). They all found that Thai students had insufficient knowledge of word form, meaning, and use.

Regarding word form, Ward and Chuenjundaeng (2009) investigated the receptive knowledge of suffixes (-er, -tion, -ity, and -ment) of Thai undergraduates. The findings indicated that the majority of the participants knew neither the base forms nor the derivatives in the test. They did not have the knowledge of word building. This is also true for the non-English-major students in the study by Kitikanan and Supantana (2018) as they obtained merely 30-40% of a prefix-suffix test.

To examine word meaning, previous studies are based on a perception that vocabulary size positively correlates with learners' language performance. For instance, a vocabulary size of 2,000 word families for basic everyday communication (Nation, 2001, 2013), most frequent 3,000 word families to begin to read authentic texts (Laufer, 1992; Schmitt et al., 2001), 5,000 word families for comprehending unsimplified texts (Hirsh & Nation, 1992), and 10,000 word families for studying at a university level in EFL context (Read, 2000).

Yunus et al. (2016) compared the receptive vocabulary size of Thai first-year English majors with that of Malaysian first-year English majors by using the Vocabulary Size Test (VST) (Nation & Beglar, 2007). They found that the Thai participants had a very low receptive vocabulary size of around 2,090 word families, while the Malaysian participants on average had larger vocabulary size, 4,460 word families. The first-year participants in Sungprakul's Sungprakul (2016) study had the receptive vocabulary size of around 5,800-6,000 word families. The receptive vocabulary size of 484 freshmen from seven universities across Thailand in the study by Mungkonwong and Wudthayagorn (2017) possessed approximately 4,200 word families. Furthermore, Nirattisai (2014) also found that the participants from seven faculties had the receptive vocabulary size of around 5,800 and the productive vocabulary size was much smaller, i.e., 1,600 word families. These were not adequate to function efficiently at a university as suggested by Nation (2006) and Nation and Waring (1997).

Thai learners also lack the knowledge of word use such as collocation. Dokchandra (2019a) investigated both receptive and productive collocation knowledge

of 286 third-year Thai university students and found that their scores were lower than 50% of the total score on both tests. The findings are in line with another study on collocation by Dokchandra (2019b). Although the participants' scores of grammatical collocation knowledge exceeded 50%, their lexical and idiomatic collocation scores did not. Likewise, Zhang and Sukying (2021) found that the first-year and the fourth-year students in their study showed low scores on collocation tests, with the first-year students gaining only 14-25% on both tests. Zhang (2022) also found that the participants' productive lexical collocation knowledge lagged behind.

The aforementioned studies showed that Thai learners possess inadequate knowledge of word form, meaning, and use. The scholars propose some possible explanations and additionally suggest pedagogical implications. Most of these recommendations are congruent with the four strands proposed by Nation (2013, 2022).

Possible explanations and pedagogical recommendations

This section presents possible explanations for Thai undergraduates' insufficient vocabulary knowledge and the pedagogical implications suggested by scholars exploring vocabulary knowledge. Most of the pedagogical recommendations are in concordance with Nation's (2022) four strands. The four strands include 1) language-focused learning (the direct teaching and learning of vocabulary), 2) meaning-focused input (focusing on meaning while reading and listening), 3) meaning-focused output (focusing on word meaning in writing and speaking activities, and 4) fluency development (further practice of vocabulary learned),

The first possible explanation why vocabulary is challenging for Thai learners (Gallagher et al., 2019) is the differences between their L1 and their L2. This is also true for other EFL learners (Laufer & Eliasson, 1993). As the Thai language is non-Latinate or not from the same root as the English language, word formation rules and

word usage differ from those of the English language. Ward and Chuenjundaeng (2009) agree with this. Consequently, a first pedagogical recommendation is explicit teaching.

Explicitly pointing out the differences between the two languages might help Thai learners realize them better (Bennui, 2016; Sermsook et al., 2017). This is in line with one of Nation's (2013, 2022) four strands, that is, language-focused learning. In terms of the knowledge of word form, such as affixes, explicitly teaching morphological knowledge by emphasizing building up basewords can promote the acquisition of derived forms and the better acquisition can further broaden learners' vocabulary knowledge (Kitikanan & Supantana, 2018; Sukying, 2018; Ward & Chuenjundaeng, 2009). Additionally, "to improve the proficiency of the L2 affix, teachers should provide more examples and a wider list of affixes to L2 learners so that they can get exposed to the L2 affix input" (Kitikanan & Supantana, 2018, p. 125). As for the knowledge of word meaning, especially academic vocabulary, Yunus et al. (2016) recommended the inclusion of academic vocabulary in the curriculum and explicitly teach it to equip the learners with words necessary for their academic life. Regarding word use, Zhang and Sukying (2021) suggest that learning by noticing chunks of words would benefit learners' knowledge of collocation.

Concerning word lists, words that should be focused on are the most frequently used words in each field of study as they have high text coverage. The most commonly used academic word list is Coxhead's (2000) Academic Word List, and A New Vocabulary List (Gardner & Davies, 2014). For general vocabulary, the New General Service List (Brezina & Gablasova, 2015) might be useful. For English for specific purposes (ESP), there are a variety of word lists such as an engineering word list (Todd, 2017), a new medical word list (Lei & Liu, 2016), a nursing word list (Yang, 2015), etc. Regarding lexical units, the academic English collocation list (Lei & Liu, 2018) is recommended. These lists can be presented in class, included in activities, used in tests and for course designing.

The benefits of an explicit teaching method are evident in the findings of an empirical study by Akbulut (2017). Fifty-two university students were directly taught morphemes (prefix, suffix, and roots) and provided vocabulary learning activities related to meaning, word part, collocation, synonym, antonym, and practice of morphological analysis within three hours for twelve weeks. Nation's (2001) Vocabulary Level Tests and Morphological Awareness Test were used as pretests and posttests. The findings showed that the vocabulary gains were highly statistically significant. The findings are in line with Sukying (2020) study. Ninety-two students in English Analytical Reading Course were divided into two groups. The experimental group was explicitly taught affixes and roots based on Bauer and Nation's (1993) word family members by emphasizing the relationships among word family members. The gains of the experimental group on both receptive and productive tests were much higher than those of the control group, approximately two times on the receptive test and twelve on the productive one. The experimental group also considered the treatment useful for improving their language skills, grammar, and vocabulary learning. Therefore, explicit teaching methods are beneficial. If applied to the other vocabulary aspects, such aspects are also likely to be acquired by learners.

A second pedagogical recommendation is systematic teaching methods based on the order of learners' vocabulary acquisition. Students tend to acquire easy words or lexical units before challenging ones. Hence, easy-to-acquire vocabulary should be taught before so that it becomes foundation for more difficult ones. Ward and Chuenjundaeng's (2009) found that the participants knew the suffixes -er and -tion better than the other suffixes tested. This suggest that "at a certain stage of acquisition, learners may tend to acquire certain derived forms from basewords" (Ward & Chuenjundaeng, 2009, p. 467). In terms of word meaning, Utsajit (2022) found that the participants knew a lot more high-frequency general and academic words than those with lower frequency. In Dokchandra (2019a) study, the participants recognized two

types of collocations (verb + preposition and verb + noun) relatively well. Accordingly, the easy-to-understand should be taught before the complicated ones.

Another possible explanation for insufficient vocabulary knowledge is no chance to use the language in everyday life. Therefore, a third pedagogical recommendation is to create an ESL environment in classroom by using the English language as a medium of instruction (EMI) to promote Thai learners' vocabulary acquisition. This is because an ESL environment has a positive impact on receptive and productive vocabulary learning (Nirattisai, 2014; Utsajit, 2022; Yunus et al., 2016). Using English as a medium in class supports Nation's (2022) two strands: meaning-focused input and meaning-focused output. Teachers can start with some basic English instructions and some short sentences for low-level students. Using English in class can be considered as increasing L2 input to students. Students will be more familiar with the spoken forms and other receptive knowledge of words. Once they become more confident with the words, they will be able to produce the words to communicate later. Moreover, knowing the necessity for understanding the instructions or the lectures, students will have goals in learning and more motivation.

Moratinos-Johnston et al. (2018) found that in EMI courses, students struggled at the beginning, but as they took more EMI courses, they became more and more confident and developed their English language skills. This is also true for Spanish students in a business module in a study by Hernandez-Nanclares and Jimenez-Munoz (2017). After the two-year EMI project, the analysis of their discourse and written works showed improvement in both content and language competence. Their language skills change from CEFR B2 to C1 for reading, and CEFR B1 to B2 for the other three language skills. As the language skills improved, their vocabulary knowledge also improved.

Next, receptive-oriented teaching might contribute to learners' lagging productive vocabulary knowledge. Therefore, teaching and learning lexicon should be geared towards production, and this is a fourth pedagogical recommendation. Production-oriented teaching is congruent with Nation's (2022) meaning-focused

output. This problem is evident in various studies on receptive and productive vocabulary knowledge (Dokchandra, 2019a; Li & Hafner, 2021; Sukying, 2017, 2018; Utsajit, 2022; Zhang, 2022; Zhang & Sukying, 2021; Zhong, 2018). The participants' productive scores were relatively low, compared to their receptive scores. Learning activities focusing on productive skills such as conversation and essay writing activities can improve students' productive vocabulary knowledge (Zhang & Sukying, 2021, p. 275).

Tahmasbi and Farvardin (2017) examined the effect of receptive and productive task types (paragraph writing, sentence writing, combining, fill in the blank, translation, and control) based on the Involvement Load Hypothesis (ILH) towards students' receptive and productive vocabulary knowledge. The experimental groups taught with all output tasks outperformed the control group. The findings also showed that paragraph writing task was more effective than the other tasks except the sentence writing task. (Tahmasbi & Farvardin, 2017, p. 7). Similarly, Yanagisawa (2016) investigated the effect of receptive (supplying L1 meaning recall when seeing illustrations and hearing English words) and productive (supplying L2 form recall when seeing illustrations) learning conditions on receptive and productive vocabulary knowledge. After the treatment, the participants gained more productive vocabulary scores for the target words learned through productive learning condition.

A fifth pedagogical recommendation is promoting plenty of encounters through vocabulary drills. This will lead to fluency development, Nation's (2022) fourth strand. In the study by Ward and Chuenjundaeng (2009), the high scores of the two suffixes -er and -tion are also probably due to the learners' prolonged exposure to the suffixes (Ward & Chuenjundaeng, 2009). This agrees with the findings in many studies (e.g., Dokchandra, 2019a; Kitikanan & Supantana, 2018; Nirattisai, 2014). In the study by Kittikanan and Supantana (2018), English majors who tended to be exposed to affixes more frequently had better affix knowledge than non-English majors. Students with larger vocabulary size in Nirattisai's (2014) study had more exposures to English as

they took extra English courses. That means they had higher input frequency and more opportunity to use the English language. For word use, in Dokchandra's (2019a) study, the participants from the Faculty of Liberal Arts and Management Science had the highest mean score for collocation than the other three groups. Studies on word form, meaning, and use also found that the higher education level also means the more encounters and leads to stronger vocabulary knowledge (Sungprakul, 2016; Utsajit, 2022; Zhang & Sukying, 2021). Consequently, input frequency is advantageous for extending the knowledge of word form, meaning, and use. Encouraging learners to review and practice the words learned in all aspects is, therefore, recommended.

Min (2008) examined the effect of two teaching methods: reading plus vocabulary-enhancement activities (RV) and narrow reading (NR), i.e., "reading thematically related supplemental materials besides the selected texts" (Min, 2008) on learners' receptive and productive vocabulary acquisition and retention. After the five weeks of the treatment, she found that the RV group obtained higher scores for both vocabulary gains and retention. The scores were higher at the stage of receptive and productive scales on the Vocabulary Knowledge Scale, and vocabulary attrition was also found after the delayed posttest. Hence, learners gain more vocabulary knowledge with vocabulary practices, and they have vocabulary attrition if lack of practice.

Besides these four strands, the other two suggestions for teachers to follow in order to keep learners motivated and to further improve learners' vocabulary acquisition include interesting teaching materials or approaches as well as introducing useful vocabulary learning strategies to learners.

Without a chance to use the language, Thai students might not have inspiration to learn English. Interesting teaching materials or tools will also help boost Thai learners' lexical learning. Pichayasupanun et al. (2022) investigated Thai fourth-year students' receptive knowledge of word parts (prefixes and suffixes) before and after learning through a video activity. They found that the participants significantly gained

more knowledge of the prefixes and suffixes after the treatment. Dizon (2016) studied the effect of using Quizlet, a popular online tool in the form of digital flashcards, on academic vocabulary knowledge of nine Korean university students and their perceptions after using the learning tool over ten weeks. He found that the students had significant vocabulary gains and the learners had positive perception towards the learning tool. However, the flashcards can be in the form of either digital or paper flashcards as the vocabulary gains from using them both within twelve weeks were not statistically significant, but the participants preferred the digital flashcards to the paper ones. Clearly, implementing interesting learning activities or tools such as videos or other multimedia can motivate learners and stimulate word form acquisition.

Finally, Thai learners might not receive proper guidance on strategies to learn vocabulary. Thus, they should also be introduced useful vocabulary learning strategies for their life-long learning. This is because acquiring vocabulary is an incremental process and needs gradual and continuous attention of learners. Equipping learners with practical strategies is strongly advised. They can continuously learn vocabulary in their free time and at their own pace. Knowing the benefits, learners will employ the strategies more frequently while learning vocabulary and can be more adaptive when encountering unfamiliar words.

Amirian and Noughabi (2018) examined the effect of teaching vocabulary learning strategies on receptive and productive vocabulary knowledge of fifty-one Iranian English majors. The vocabulary learning strategies included “metacognitive regulation, guessing, dictionary use, note taking, memory strategies, and activation strategies” (Amirian & Noughabi, 2018, p. 2442). They firstly explained each strategy and applied it with one target word as an example so that the learners knew how to apply the strategies and had more awareness. The testing tool for the receptive vocabulary was the Persian bilingual VST and that for the productive vocabulary test was Lex 30 (Meara & Fitzpatrick, 2000). They found that the experimental group scored higher than the control group on both tests. The qualitative data analysis showed that

they had positive attitudes towards direct teaching of vocabulary learning strategies. They became more motivated in learning and found the strategies helpful as they remembered the target words better.

Conclusion

From the literature in Thai context, Thai university students had difficulties when reading and writing. This is caused by insufficient vocabulary knowledge in terms of word form (e.g., affixes), word meaning (e.g., form and meaning), and word use (e.g., collocations). The problem probably results from the differences between their L1 and L2, unplanned teaching outlines, little chance to be exposed to the English language, a lack of opportunity to use the language, receptive-oriented teaching, poor productive vocabulary knowledge, a lack of motivation to use English, and not receiving proper guidance on vocabulary learning strategies.

Researchers, therefore, recommended various ways to enhance Thai university students' vocabulary knowledge. They include 1) explicit teaching methods such as pointing out the differences between their L1 and L2, introducing useful word lists, and encouraging them to notice chunks of words, 2) explicit teaching focusing on easy-to-understand lexical items or lexical parts before more challenging ones 3) creating an ESL environment by using English as a medium language at least in class 4) adopting productive-oriented teaching methods and learning activities and 5) allowing students to encounter necessary vocabulary more frequently through repetition of words learned in order to improve their fluency.

Most of the recommendations are congruent with Nation's (2022) four strands; however, only the four strands might not suffice to motivate Thai learners to learn and acquire necessary vocabulary. The other two pedagogical recommendations are 1) applying interesting teaching materials and tools to motivate students and 2) providing proper guidance on vocabulary learning strategies for self-studying. All in all, it is strongly advised that teachers follow these seven pedagogical recommendations in their classroom to promote Thai learners' vocabulary knowledge.

เอกสารอ้างอิง

- Akbulut, F. D. (2017). Effects of morphological awareness on second language vocabulary knowledge. *Journal of Language and Linguistic Studies*, 13(1), 10-26.
- Amirian, S. M. R., & Noughabi, M. A. (2018). The effect of teaching vocabulary learning strategies on Iranian EFL learners' receptive and productive vocabulary size. *Pertanika Journal of Social Sciences and Humanities*, 26(4), 2435-2452.
- Asaad, H. Q. M., & Shabdin, A. A. (2021). The predictive role of morphological awareness and productive vocabulary knowledge in L2 postgraduate students' academic writing. *Eurasian Journal of Applied Linguistics*, 7(1), 24-44.
- Badger, R. (2018). *Teaching and learning the English language: a problem-solving approach*. Bloomsbury Academic.
- Bauer, L., & Nation, I. S. P. (1993). Word Families. *International Journal of Lexicography*, 6(4), 253-279. <https://doi.org/10.1093/ijl/6.4.253>
- Bennui, P. (2016). A study of L1 interference in the writing of Thai EFL students. *Malaysian Journal of ELT Research*, 4(1), 31.
- Brezina, V., & Gablasova, D. (2015). Is There a Core General Vocabulary? Introducing the New General Service List. *Applied Linguistics*, 36(1), 1-22. <https://doi.org/10.1093/applin/amt018>
- Cheng, J., & Matthews, J. (2018). The relationship between three measures of L2 vocabulary knowledge and L2 listening and reading. *Language Testing*, 35(1), 3-25. <https://doi.org/10.1177/0265532216676851>
- Coxhead, A. (2000). A New Academic Word List. *TESOL Quarterly*, 34(2), 213-238.
- Dizon, G. (2016). Quizlet in the EFL classroom: Enhancing academic vocabulary acquisition of Japanese university students. *Teaching English with technology*, 16(2), 40-56.
- Dokchandra, D. (2019a). Exploring Thai University Students' Receptive and Productive Knowledge of Collocations across Four Academic Faculties. *Advances in Language and Literary Studies*, 10(6), 115-123.
- Dokchandra, D. (2019b). Thai EFL learners' collocational competence and their perceptions of collocational difficulty. *Theory and Practice in Language Studies*, 9(7), 776-784.

- Gallagher, M. A., Barber, A. T., Beck, J. S., & Buehl, M. M. (2019). Academic vocabulary: Explicit and incidental instruction for students of diverse language backgrounds. *Reading & Writing Quarterly*, 35(2), 84-102.
- Gardner, D., & Davies, M. (2014). A New Academic Vocabulary List. *Applied Linguistics*, 35(3), 305-327. <https://doi.org/10.1093/applin/amt015>
- Ha, H. T. (2021). Exploring the relationships between various dimensions of receptive vocabulary knowledge and L2 listening and reading comprehension. *Language Testing in Asia*, 11(1), 1-20.
- Hernandez-Nanclares, N., & Jimenez-Munoz, A. (2017). English as a medium of instruction: Evidence for language and content targets in bilingual education in economics. *International Journal of Bilingual Education and Bilingualism*, 20(7), 883-896.
- Hirsh, D., & Nation, I. S. P. (1992). What vocabulary size is needed to read unsimplified texts for pleasure? *Reading in a Foreign Language*, 8, 689-696.
- Jiang, N. (2000). Lexical Representation and Development in a Second Language. *Applied Linguistics*, 21(1), 47-77. <https://doi.org/10.1093/applin/21.1.47>
- Kilic, M. (2019). Vocabulary Knowledge as a Predictor of Performance in Writing and Speaking: A Case of Turkish EFL Learners. *PASAA: Journal of Language Teaching and Learning in Thailand*, 57, 133.
- Kitikanan, P., & Supantana, J. (2018). *Do L2 experience, type of affix and motivational factors relate to affix knowledge in L2 English learning? The 3rd International Conference of Multidisciplinary Approaches on UN Sustainable Development Goals UNSDGs 2018*. Bangkok, Thailand,
- Laufer, B. (1992). Reading in a Foreign Language: How Does L2 Lexical Knowledge Interact with the Reader's General Academic Ability? *Journal of Research in Reading*, 15(2), 95-103. <https://doi.org/10.1111/j.1467-9817.1992.tb00025.x>
- Laufer, B., & Eliasson, S. (1993). What causes avoidance in L2 learning: L1-L2 difference, L1-L2 similarity, or L2 complexity? *Studies in second language acquisition*, 15(1), 35-48.

- Lei, L., & Liu, D. (2016). A new medical academic word list: A corpus-based study with enhanced methodology. *Journal of English for Academic Purposes*, 22, 42-53. <https://doi.org/10.1016/j.jeap.2016.01.008>
- Lei, L., & Liu, D. (2018). The academic English collocation list: A corpus-driven study. *International Journal of Corpus Linguistics*, 23(2), 216-243.
- Li, Y., & Hafner, C. A. (2021). Mobile-assisted vocabulary learning: Investigating receptive and productive vocabulary knowledge of Chinese EFL learners. *ReCALL (Cambridge, England)*, 1-15. <https://doi.org/10.1017/S0958344021000161>
- Meara, P., & Fitzpatrick, T. (2000). Lex30: An improved method of assessing productive vocabulary in an L2. *System*, 28(1), 19-30.
- Min, H. T. (2008). EFL Vocabulary Acquisition and Retention: Reading Plus Vocabulary Enhancement Activities and Narrow Reading. *Language Learning*, 58(1), 73-115. <https://doi.org/10.1111/j.1467-9922.2007.00435.x>
- Moon, Y. (2017). Are Different Types of Vocabulary Needed for Comprehending General and Academic Texts? *English Teaching*, 72(3), 47-68.
- Moratinos-Johnston, S., Juan-Garau, M., & Salazar-Noguera, J. (2018). The effects of English-medium instruction in higher education on students' perceived level and self-confidence in ELF. *Learning context effects: Study abroad, formal instruction and international immersion classrooms*, 1, 75.
- Mungkonwong, P., & Wudthayagorn, J. (2017). An Investigation of Vocabulary Size of Thai Freshmen and Its Relationship to Years of English Study. *LEARN Journal: Language Education and Acquisition Research Network*, 10(2), 1-9.
- Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge University Press.
- Nation, I. S. P. (2006). How Large a Vocabulary Is Needed for Reading and Listening? *The Canadian Modern Language Review / La revue canadienne des langues vivantes*, 63(1), 59-81. <https://doi.org/10.1353/cml.2006.0049>
- Nation, I. S. P. (2013). *Learning vocabulary in another language* (2nd ed.). Cambridge University Press.

- Nation, I. S. P. (2022). *Learning vocabulary in another language* (Third Edition ed.). Cambridge university press.
- Nation, I. S. P., & Beglar, D. (2007). A vocabulary size test. *The language teacher*, 31(7), 9-13.
- Nation, I. S. P., & Waring, R. (1997). Vocabulary size, text coverage and word lists. In N. Schmitt & M. McCarthy (Eds.), *Vocabulary Description, Acquisition and Pedagogy* (pp. 6-19). Cambridge University Press.
- Nirattisai, S. (2014). *Vocabulary size and vocabulary learning strategies of Thai university students* [Prince of Songkla University].
- Nontasee, W., & Sukying, A. (2020). The Acquisition of Vocabulary Knowledge in Thai EFL High School Students. *Journal of Man and Society*, 6(1), 63-87.
- Omidian, T., Akbary, M., & Shahriari, H. (2019). Exploring factors contributing to the receptive and productive knowledge of phrasal verbs in the EFL context. *WORD*, 65(1), 1-24. <https://doi.org/10.1080/00437956.2019.1567040>
- Pichayasupanun, N., Siithiwarakorn, S., Nirachin, H., & Boonchum, P. (2022). English Vocabulary Learning Strategy to Improve Memorizing Skill with Prefixes and Suffixes through Video Activity of the Fourth-year Students in English Programme, the Faculty of Humanities and Social Sciences, Pibulsongkram Rajabhat University. *Aksara Pibul Journal*, 3(1), 74-86.
- Read, J. (2000). *Assessing vocabulary*. Cambridge University Press.
- Schmitt, N. (2000). *Vocabulary in language teaching*. Cambridge University Press.
- Schmitt, N., & Schmitt, D. (2020). *Vocabulary in language teaching*. Cambridge university press.
- Schmitt, N., Schmitt, D., & Clapham, C. (2001). Developing and exploring the behaviour of two new versions of the Vocabulary Levels Test. *Language Testing*, 18(1), 55-88. <https://doi.org/10.1177/026553220101800103>
- Sermsook, K., Liamnimit, J., & Pochakorn, R. (2017). An Analysis of Errors in Written English Sentences: A Case Study of Thai EFL Students. *English Language Teaching*, 10(3), 101-110.

- Sukyng, A. (2017). *The relationship between receptive and productive affix knowledge and vocabulary size in an EFL Context*
- Sukyng, A. (2018). Investigating receptive and productive affix knowledge in EFL learners. *Explorations in second language vocabulary research*, 183-218.
- Sukyng, A. (2020). Word Knowledge through Morphological Awareness in EFL Learners. *TESOL International Journal*, 15(1), 74-85.
- Sungprakul, S. (2016). Measuring Vocabulary Size of Thai University Students. *International Journal of Social Science and Humanities Research*, 4(4), 608-624.
- Tahmasbi, M., & Farvardin, M. T. (2017). Probing the Effects of Task Types on EFL Learners' Receptive and Productive Vocabulary Knowledge: The Case of Involvement Load Hypothesis. *SAGE Open*, 7(3). <https://doi.org/10.1177/2158244017730596>
- Teng, F. (2016). An In-depth Investigation into the Relationship between Vocabulary Knowledge and Academic Listening Comprehension. *Tesl-Ej*, 20(2), n2.
- Thornbury, S. (2002). *How to teach vocabulary*. Longman.
- Todd, R. W. (2017). An opaque engineering word list: Which words should a teacher focus on? *English for Specific Purposes*, 45(Supplement C), 31-39. <https://doi.org/https://doi.org/10.1016/j.esp.2016.08.003>
- Uchihara, T., & Clenton, J. (2022). The role of spoken vocabulary knowledge in second language speaking proficiency. *The Language Learning Journal*, 1-18.
- Utsajit, P. (2022). *A Cross-Sectional Study of English-Major Students' Receptive and Productive Vocabulary Knowledge* University of Leeds]. White Rose eTheses Online.
- Ward, J., & Chuenjundaeng, J. (2009). Suffix knowledge: Acquisition and applications. *System*, 37(3), 461-469. <https://doi.org/10.1016/j.system.2009.01.004>
- Yanagisawa, A. (2016). The Effects of Receptive and Productive Word Retrieval Practice on Second Language Vocabulary Learning. *KATE Journal*, 30, 139-152.
- Yang, M.-N. (2015). A nursing academic word list. *English for Specific Purposes*, 37, 27-38. <https://doi.org/10.1016/j.esp.2014.05.003>

- Yunus, K., Mohamad, M., & Waelateh, B. (2016). The breadth of receptive vocabulary knowledge among English major university students. *Journal of Nusantara Studies (JONUS)*, 1(1), 7-17.
- Zhang, X. (2022). *The Relationship between Thai University Learners' Vocabulary Sizes and their Receptive and Productive Knowledge of Lexical Collocations*. Mahasarakham University.
- Zhang, X., & Sukying, A. (2021). Receptive and Productive Knowledge of Lexical Collocations in Thai University Learners of English. *European Journal of English Language Teaching*, 6(6).
- Zhong, H. F. (2018). The relationship between receptive and productive vocabulary knowledge: a perspective from vocabulary use in sentence writing. *Language learning journal*, 46(4), 357-370. <https://doi.org/10.1080/09571736.2015.1127403>