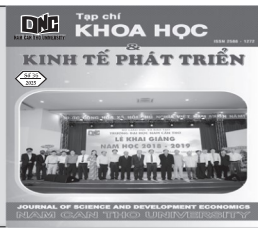
Journal of Science and Development Economics
Nam Can Tho University

Website: jsde.nctu.edu.vn



Exploring the Relationship Between Vocabulary Knowledge and Reading Comprehension in EFL Learners: Strategies and Implications

Hong Cam Ngan*

Nam Can Tho University

*Corresponding author: Hong Cam Ngan (hcngan@nctu.edu.vn)

Received: 5/2/2025
Revised: 5/3/2025
Accepted: 3/4/2025

Keywords: *EFL teaching and learning, reading comprehension, vocabulary knowledge, vocabulary learning strategies*

Từ khóa: *chiến lược học từ vựng, EFL, giảng dạy và học tập tiếng anh, hiểu đọc, kiến thức từ vựng*

ABSTRACT

This study examines the relationship between vocabulary knowledge and reading comprehension in English as a Foreign Language (EFL) learners, exploring how various vocabulary learning strategies influence reading proficiency. The research synthesized findings from multiple studies that highlighted the importance of vocabulary size and depth in facilitating comprehension. It revealed that vocabulary knowledge is a significant predictor of reading ability, with learners' capacity to decode, recognize, and understand words playing a crucial role in effective comprehension. The study also explored the impact of different vocabulary strategies, including extensive reading, summarizing, and metacognitive techniques, in enhancing both vocabulary acquisition and reading comprehension outcomes. Findings suggested that a combination of direct and indirect vocabulary learning strategies, such as rote memorization and contextual learning, contribute to improved comprehension, with an emphasis on developing a rich, diverse mental lexicon. Additionally, the study highlighted the importance of teacher guidance in promoting effective vocabulary learning strategies and suggests that both vocabulary breadth and depth should be prioritized in EFL instruction. The study concludes with recommendations for curriculum design, instructional methods, and assessment practices to enhance vocabulary learning and reading comprehension among EFL learners.

TÓM TẮT

Nghiên cứu này xem xét mối quan hệ giữa kiến thức từ vựng và khả năng hiểu đọc ở người học tiếng Anh như một ngôn ngữ nước ngoài (EFL), đồng thời tìm hiểu các chiến lược học từ vựng khác nhau ảnh hưởng đến trình độ đọc của sinh viên. Nghiên cứu tổng hợp các kết quả từ nhiều nghiên cứu khác nhau cho thấy tầm quan trọng của quy mô và độ sâu từ vựng trong việc hỗ trợ đọc hiểu. Kết quả cho thấy kiến thức từ vựng là một yếu tố dự báo quan trọng đối với khả năng đọc, trong đó năng lực giải mã, nhận diện và hiểu từ vựng của người học đóng vai trò then chốt trong việc đạt được sự hiểu biết hiệu quả. Nghiên cứu cũng khám phá tác động của các chiến lược từ vựng khác nhau, bao gồm đọc mở rộng, tóm tắt và các kỹ thuật siêu nhận thức, trong việc nâng cao cả việc tiếp thu từ vựng lẫn kết quả đọc hiểu. Các phát hiện cho thấy sự kết hợp giữa các chiến lược học từ vựng trực tiếp và gián tiếp, chẳng hạn như học thuộc lòng và học theo ngữ cảnh, góp phần cải thiện khả năng hiểu đọc, với trọng tâm là phát triển một kho từ vựng tinh thần phong phú và đa dạng. Ngoài ra, nghiên cứu cũng nhấn mạnh vai trò quan trọng của sự hướng dẫn từ giáo viên trong việc thúc đẩy các chiến lược học từ vựng hiệu quả và đề xuất rằng cả độ rộng lẫn độ sâu của từ vựng nên được ưu tiên trong giảng dạy EFL. Nghiên cứu khuyến nghị về thiết kế chương trình học, phương pháp giảng dạy và thực hành đánh giá nhằm nâng cao việc học từ vựng và khả năng đọc hiểu ở người học EFL.

1. INTRODUCTION

English is the language most widely learned, read, and spoken the world has ever known. Most studies are memory strategies, therefore, one of the many aspects of vocabulary learning strategies, on the presupposition that strategies good for vocabulary retention will also benefit language learning in general [1] and reading learning in specific. Thus, there are more studies that have shown the relationship between vocabulary learning strategies and vocabulary knowledge, and vocabulary knowledge and reading comprehension. The role of vocabulary in reading comprehension is a complex one. To understand text meaning, one must be able to decode the printed message [2]. In EFL contexts, reading comprehension often presents a challenge, especially when students lack sufficient vocabulary knowledge. Many learners struggle with word recognition, leading to slower reading rates, reduced comprehension, and increased frustration. To address these challenges, vocabulary learning strategies have emerged as a key area of interest in educational research. Strategies such as extensive reading, summarization, and the use of metacognitive

techniques are believed to enhance learners' ability to expand their vocabulary and improve their comprehension outcomes.

This study seeks to explore the relationship between vocabulary knowledge and reading comprehension, examining how different vocabulary learning strategies can influence reading proficiency. By synthesizing findings from various studies, this research aims to provide insights into the effective integration of vocabulary instruction and reading strategies in EFL teaching practices. Ultimately, the goal is to highlight the importance of vocabulary in reading comprehension and offer recommendations for enhancing language instruction to support EFL learners in achieving greater reading success.

2. RESEARCH METHODS

This study was conducted by systematic review methodology to collect all evidence to answer the research questions [3]. Author employed a number of databases (ProQuest, ScienceDirect, Elsevier) to identify related studies for the current review. A initial collection of studies was found by a first search utilizing a set of keywords and their combinations (e.g., "vocabulary learning strategies", "reading comprehension", "relationship between vocabulary and reading", "vocabulary knowledge", "EFL teaching and learning"). After that, the list of studies was expanded by using a snowball strategy of searching backward and forward citations [4].

3. RESULTS AND DISCUSSION

3.1 Schmitt's taxonomy

According to vocabulary learning strategies used in learning languages, most of research studies are based Schmitt's (1997) taxonomy. English reading focusing on five main categories of vocabulary learning strategies: Determination Strategies (DET), Social Strategies (SOC), Memory Strategies (SOC), Cognitive Strategies (COG), and Metacognitive Strategies.

By definition, *vocabulary learning* is the process in which information is obtained, stored, retrieved and used. Brown and Payne (1994, as cited in [5]) have identified five steps in learning a new word: (a) having sources for encountering new words, (b) getting a clear image either visual or auditory or both of the form of the new words, (c) learning the meaning of the words, (d) making a strong memory connection between the forms and the meanings of the words, and (e) using the words.

The word *vocabulary* has long connoted word lists, and *vocabulary learning strategies* have been tantamount to techniques that help commit these lists to memory [1]. Therefore, v*ocabulary learning strategies* refer to any set of techniques or learning behaviors which language learners reported using in order to discover the meaning of a new word, to retain the knowledge of newly-learned words, and to expand one's vocabulary [5].

The literature on language learning has proposed several vocabulary learning strategy taxonomies [1],[6],[7]. According to Gu and Johnson (1996), their taxonomy consists of (1) beliefs about Vocabulary Learning, included 17 statements representing 3 dimensions of beliefs: Vocabulary should be memorized; Vocabulary should be picked up naturally; and Vocabulary should be studied and used; and (2) Vocabulary Learning Strategies, contained 91 vocabulary learning behaviors divided into two major parts: Metacognitive Regulation and Cognitive Strategies [1]. Nation (2001) in his taxonomy

distinguishes the aspects of vocabulary knowledge, the sources of vocabulary knowledge and learning processes. Further, Nation classifies vocabulary learning strategies into three general groups, planning, sources, and process [6].

Schmitt's taxonomy has been extensively exploited in the relevant studies due to its several advantages over others. Namely, these advantages are as follows: Schmitt's taxonomy can be standardized for assessment goals, can be utilized to gather the answers from students easily, is based on the theory of learning strategies as well as on theories of memory, is technologically simple, can be applied to learners of different educational backgrounds and target languages, is rich and sensitive to the other relevant learning strategies, and allows comparisons with other studies [8].

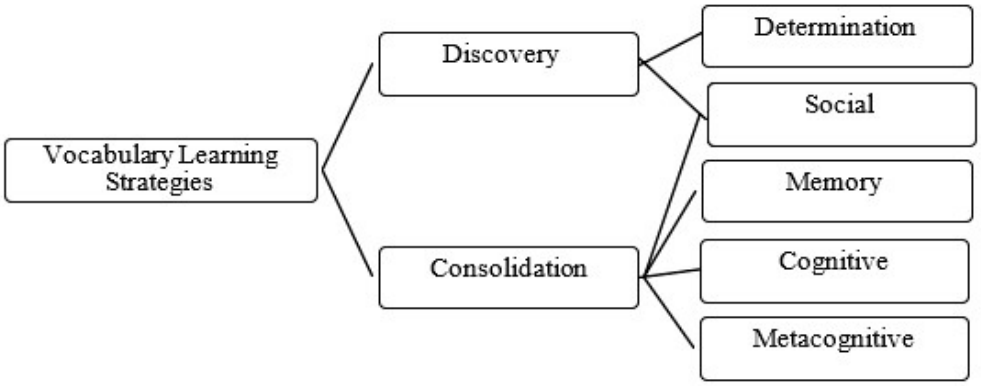


Figure 1. Graphical overview of Schmitt's (1997) Taxonomy

The general classification of the vocabulary learning strategies by Schmitt's (1997) taxonomy which can be basically classified into two dimensions as discovery and consolidation strategies. Specifically, discovery strategies mean discovering the meaning of unknown words by determination strategies (finding meaning without resource to others) and social strategies (consulting or working with others to discover meaning). Consolidation strategies is remembering words once their meaning has been discovered by using social strategies, memory strategies (as mnemonics), cognitive strategies (similar to memory, but without the use of mnemonics), and metacognitive strategies (planning, monitoring, evaluation of learning). The vocabulary learning strategies in all five categories at a moderate level.

3.2 Definition and Classification of Vocabulary Knowledge

When discussing vocabulary, the relationship between the two constructs is still unclear. They are size of vocabulary (number of known words) and depth of knowledge (how well those words are known). However, some scholars claim that there is little real difference between the two, while regression analyses show that depth typically adds unique explanatory power compared to size alone. Ultimately, the relationship between size and depth of vocabulary knowledge depends on how each is conceptualized and measured. In an attempt to provide an empirical basis for exploring the size–depth relationship, this critical synthesis identifies studies that contain measures of both size and depth [7].

Paul Nation refined this approach and his 2001 listing is still considered the best specification of the range of so-called word knowledge aspects to date, with each having receptive (R) and productive levels of mastery (P) (Table 1).

Table 1. What is involved in knowing a word [6]

Form	Spoken	R	What does the word sound like?
		P	How is the word pronounced?
	Written	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 this meaning?
Meaning	Form and meaning	R	What meaning does this word form signal?
		P	What word form can be used to express this meaning?
	Concept 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 patterns 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?

The richest depth could be seen as mastery of all these word knowledge aspects, but knowledge of individual aspects (collocation, derivative forms, polysemous meaning senses) can also be seen as contributing to depth of knowledge. As a result, these word knowledge aspects are not mastered in a dichotomous known/not known manner. Further, they are likely to be developmental in nature, although each of the aspects probably develops at different rates, as illustrated in a hypothetical graph of what developing word knowledge might look like after a number of learning exposures (Figure 2).

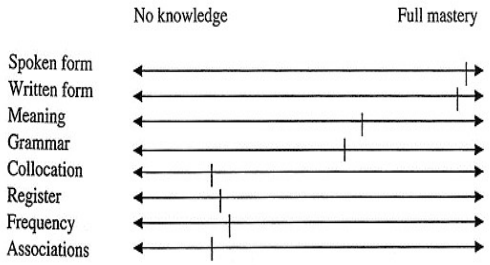


Figure 2. Developing knowledge of a word [7]

Table 2 assumes that vocabulary is learned in order of its frequency. That means the first 1,000 words are learned before the second 1,000 words, and the second 1,000 words are learned before the third 1,000 words, and so on [6]. That is a reason

for the high and mid-frequency levels of the language.

Table 2. English vocabulary size needed to get 95% and 98% coverage (including proper nouns) of various kinds of texts [6]

Texts	95% coverage	98% coverage	Proper nouns
Novels	4,000 word families	9,000 word families	1-2%
Newspapers	4,000 word families	8,000 word families	5-6%
Children's movies	4,000 word families	6,000 word families	1.5%
Spoken English	3,000 word families	7,000 word families	1.3%

3.3 Relationship between vocabulary knowledge and reading comprehension

There are more studies that have shown the relationship between vocabulary learning strategies and reading comprehension. Findings supported that vocabulary knowledge plays an important role in reading exams, and reading investigation has constantly come up with a word knowledge element on which vocabulary tests load positively. Vocabulary knowledge is fundamental since lexical errors are the most recurring ones and, concurrently, they form an important obstruction to communication. Therefore, building one's mental library of lexicon is crucial to allow the learners to function well in a given context. Vocabulary knowledge is one of the best predictors of reading ability and the capability to obtain new details from texts [9].

The mental lexicon is a complex phenomenon, and the exact nature of lexical knowledge has always perplexed researchers and teachers. This is not surprising as a lexicon can hold many thousands of words, each with numerous links of various kinds to the other words in the lexical network. Moreover, the links between different words are often difficult to explain clearly, thus making research into these links difficult. For example, a good red wine might be associated with words like red, full-bodied, complex, spicy, satisfying, and ripe, but explaining how these words are stored in the mental lexicon and how they are related to each other in various ways is not straightforward. Descriptions of the mental lexicon are further complicated by the fact that each word does not usually exist on its own, but rather is typically a part of a word family with numerous related members (e.g., joy, joyful, joyous, joyfully), of a lexical set (emotion, joy, ecstasy), and of formulaic language (get/have no joy from something, "have no success in getting something you want") [7].

The role of vocabulary in reading comprehension is a complex one. To understand text meaning, one must be able to decode the printed message. The presence of a high density of unknown words in a text may seriously hinder comprehension. Fast and efficient word recognition, word encoding and lexical access are necessary for a higher level of meaning construction. The main difference between skilled and less skilled readers lies in slower and inefficient lexical access and semantic processing [2].

EFL teachers sometimes challenge students' incapability to deal with hard words in reading comprehension. Using different vocabulary

learning strategies may lead to a very different kind of learning. The use of word lists comes to mind [7]. Joshi and Aaron (2000) found that vocabulary knowledge is a strong predictor of reading ability when factoring in both reading speed and decoding [10]. This reinforced the idea that vocabulary knowledge doesn't only contribute to comprehension but also to the efficiency of reading processes. Knowing more words allows for faster decoding, making reading comprehension smoother and less. Therefore, although the size of vocabulary knowledge is a crucial element in evaluating the reading comprehension, depth of vocabulary, in addition to what is expected, plays a significant part in reading comprehension performance. A study of Zhang and Anual (2008) found a significant correlation between vocabulary knowledge and reading comprehension, particularly at higher levels of vocabulary knowledge (2000-3000 words). The result indicated that a robust vocabulary is foundational for comprehension, with learners able to grasp reading materials more easily when they are familiar with the vocabulary at play. This highlights the importance of not just broad vocabulary knowledge but also deep understanding at particular proficiency levels [11].

According to the strategies of vocabulary learning, remarkable related studies from foreign countries and Vietnam show clearly the relationship between some vocabulary strategies and English learning outcomes in general and reading comprehension in particular.

First, Gu and Johnson (1996) aimed to establish the vocabulary learning strategies used by Chinese university learners of English and the relationship between their strategies and outcomes in learning English. This study emphasized the wide variety of vocabulary learning strategies used by learners. The participants reported little reliance on rote memorization, with a preference for strategies such as *oral repetition and extensive reading*. The study suggests that both direct (e.g., rote memorization) and indirect (e.g., reading extensively) strategies can contribute to vocabulary development, which in turn aids reading comprehension. Importantly, it highlighted the role of a learner's engagement with a range of strategies, underlining the importance of fostering "situated cognition," where strategies are contextually adapted [1].

Next, Martin-Chang and Gould's study (2008) found a strong correlation between *vocabulary knowledge* and reading comprehension, as well as between reading rate and primary print knowledge. This suggested that vocabulary knowledge not only supports comprehension directly but also enhances reading speed, which in turn contributes to better comprehension outcomes. It also underscores the integral role of decoding in comprehension, making vocabulary a critical factor in reading success [12]. In 2020, a study of David Manihuruk also found a moderate positive correlation between *vocabulary mastery* and reading comprehension performance among Indonesian students. The moderate correlation suggested that vocabulary mastery plays an important, though not exclusive, role in reading comprehension. It pointed to the possibility that other factors, such as *background knowledge* or reading strategies, may also

significantly influence comprehension outcomes [13].

Beside that, a study of Baleghizadeh and Golbin (2010) showed a significant positive correlation between vocabulary size and reading comprehension among Iranian EFL learners. The high correlation found here strengthens the argument that *expanding vocabulary* is essential for improving reading comprehension. The findings suggest that strategies aimed at improving vocabulary size should be prioritized in EFL classrooms [2].

According to Vietnamese context, there are some studies which were conducted related to the topic vocabulary stragies for reading. The first, Huan and Ngan (2017) examined the role of summarizing as a strategy in reading comprehension, noting that while students found it useful, they faced challenges with vocabulary and grammar. This finding highlighted the intersection between vocabulary strategies and reading comprehension. It suggests that *summarization, as a metacognitive strategy*, can be an effective tool, but learners must first have sufficient vocabulary and grammar knowledge to engage effectively with the text [14]. Besides, in the project to discover the difficulties facing Vietnamese learners of English and the solution, being the Special Issue in the International Journal of Language and Linguistics, numbered 501024, reading comprehension is one of the difficulties to be discovered facing Vietnam learners, for which the solution discussed in this paper was analyzed to complete the project for the Special Issue 501024. Therefore, this study focused on the importance of the *Schema theory* in reading comprehension. The study focused on the effectiveness of the *K-W-L method (Knowledge, Writing, Listening)* in improving reading comprehension, particularly through activating prior knowledge. While the focus is on Schema theory, the study underscored the importance of background knowledge in reading comprehension. As a result, the research has proved the effect of the treatment. Vocabulary strategies that encourage activating and expanding prior knowledge (such as K-W-L) can complement and enhance comprehension [15].

In summary this section, there were many studies regarding this topic but it almostly in the world. And there is few studies for investigation the relation of vocabulary strategies and reading comprehesion as focusing on the specific clusters of the strategies. The relationship between vocabulary knowledge and reading comprehension is well-established in the research. Vocabulary knowledge plays a crucial role in decoding texts, improving reading speed, and enhancing comprehension. The use of diverse vocabulary learning strategies, such as extensive reading and summarizing, further supports reading comprehension by promoting better lexical access and engagement with the text. Studies from various cultural contexts, including those from China, Iran, and Vietnam, consistently highlight the importance of vocabulary development and the strategic use of vocabulary learning techniques in improving reading outcomes. These findings underscore the need for EFL teachers to prioritize vocabulary instruction and strategy use to enhance students' reading comprehension abilities.

1. CONCLUSION AND SUGGESTIONS

In conclusion, this study underscores the intricate link between vocabulary strategies and reading comprehension, demonstrating that both direct methods, such as memorization, and indirect approaches, like extensive reading, significantly enhance reading proficiency in EFL contexts. The effectiveness of these strategies varies based on individual learner preferences and educational settings, highlighting the need for a tailored approach that expands vocabulary knowledge while integrating metacognitive techniques. To optimize reading comprehension, EFL educators should prioritize vocabulary expansion through activities like extensive reading and word association tasks, incorporate metacognitive strategies such as summarizing and self-monitoring, and encourage a diverse mix of learning techniques, including oral repetition, contextual guessing, and mnemonic devices. Additionally, leveraging Schema Theory via methods like the K-W-L strategy can connect new vocabulary to prior knowledge, while contextual learning with authentic materials and interactive group activities fosters deeper engagement. Regular reading practice, formative assessments with personalized feedback, and adaptive teaching tailored to proficiency levels further support this process. By implementing these recommendations, educators can effectively bolster students' vocabulary and reading skills, paving the way for improved overall language proficiency. This study has important implications for how vocabulary learning and reading comprehension are taught in EFL contexts. By prioritizing vocabulary development, employing effective teaching strategies, and fostering student engagement, educators can significantly enhance students' reading abilities and overall language proficiency. (1) Curriculum Design: The study underscores the importance of integrating vocabulary development into the broader curriculum. EFL curricula should not only focus on grammar and syntax but also place significant emphasis on expanding students' vocabulary through a variety of instructional strategies. Textbooks and reading materials should include rich, contextually diverse vocabulary to ensure that students encounter and learn words in meaningful settings; (2) Instructional Methods: Teachers should adopt diverse instructional methods that encourage both the expansion and deepening of vocabulary knowledge. Strategies such as extensive reading, word association activities, and the use of vocabulary learning tools (e.g., flashcards, word maps) can be highly effective. Additionally, teachers should encourage the use of vocabulary learning strategies like context guessing and mnemonic techniques to enhance retention; (3) Learner Profiles: Differences in learner proficiency (e.g., higher vs. lower proficiency) influence the strategies they employ and the extent to which vocabulary knowledge impacts reading comprehension. This suggests the importance of tailoring strategies to different learner needs; (4) Teacher Training: The findings highlight the need for teacher training programs to address the importance of vocabulary knowledge and its role in reading comprehension. Teachers should be equipped with the knowledge and skills to teach vocabulary in ways that promote both recognition and active use. Training should also include

strategies for guiding students in developing personalized vocabulary learning approaches; (5) Educational Policy and Research: The study's findings could inform educational policymakers about the critical role of vocabulary in EFL reading programs. Policy initiatives could focus on developing and promoting evidence-based vocabulary learning programs that integrate comprehensive reading strategies. Further research could explore the effectiveness of different vocabulary learning methods across diverse learner populations and educational contexts.

REFERENCES

[1] Gu, Y., & Johnson, R. K. (1996). Vocabulary Learning Strategies and Language Learning Outcomes. *Language Learning,* vol. 46, no. 4, pp. 643-679.

[2] Baleghizadeh, S., & Golbin, M. (2010). The effect of vocabulary size on reading comprehension of Iranian EFL learners. *Linguistic and Literary Broad Research and Innovation,* vol. 1, no. 2, pp. 33-46.

[3] ScienceDirect. (2025). *Systematic Review.* Elsevier B.V.

[4] Nikolopoulou, K. (2023). What Is Snowball Sampling? Definition & Examples. *Scribbr.*

[5] Komol, T., & Sripetpun, W. (2011). Vocabulary Learning Strategies Employed by Undergraduate Students and its Relationship to their Vocabulary Knowledge. *In The 3rd International Conference on Humanities and Social Sciences.*

[6] Nation, I. S. P. (2001). *Learning vocabulary in another language.* Cambridge University Press. pp. 16, 27.

[7] Schmitt, N. (2014). Size and depth of vocabulary knowledge: What the research shows. *Language Learning,* vol. 64, no. 4, pp. 913-951.

[8] Celik, S., & Toptas, V. (2010). Vocabulary Learning Strategy use of Turkish EFL Learners. *Procedia - Social and Behavioral Sciences,* vol. 3, pp. 62-71.

[9] Moghadam, S. H., & et al. (2012). A Review on the Important Role of Vocabulary Knowledge in Reading Comprehension Performance. *Procedia - Social and Behavioral Sciences,* pp. 555-563.

[10] Joshi, R. M. & Aaron, P. G. (2000). The component model of reading: Simple view of reading made a little more complex. *Reading Psychology,* vol. 21, no. 2, pp. 85-97.

[11] Zhang, L. J., & Anual, S. B. (2008). The role of vocabulary in reading comprehension: A case of Secondary School students learning English in Singapore. *RECL Journal,* vol. 39.1, pp. 51-76.

[12] Martin-Chang, S. L., & Gould, O. N. (2008). Revisiting print exposure: exploring differential links to vocabulary, comprehension and reading rate. *Journal of Research in Reading,* vol. 31, no. 3, pp. 273-284.

[13] Manihuruk, D. (2020). The Correlation between EFL Students' Vocabulary Knowledge and Reading Comprehension. *Journal of English Teaching,* vol. 6, no. 1, pp. 86-95.

[14] Huan, N. B., and Ngan, N. T. K. (2017). Summarizing strategy: Potential tool to premote English as a foreign language (EFL) students' reading comprehension at a

vocational school, Vietnam. *European Journal of Education Studies,* pp. 51-71.

[15] Dieu, T. T. T. (2015). Trying K-W-L Strategy on Teaching Reading. *International Journal of Language and Linguistics,* pp. 481-492.