

การรับรู้ของนักศึกษาต่อการเรียนรู้แบบมีส่วนร่วมในการเรียนคำปรากฏรวม

The Students' Perceptions of the Involvement Load Hypothesis on Collocation Learning

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งานวิจัยฉบับนี้มีวัตถุประสงค์เพื่อศึกษาการรับรู้การเรียนรู้แบบมีส่วนร่วมของนักศึกษาและเพื่อศึกษาการเรียนรู้คำปรากฏรวมภายใต้การเรียนรู้แบบมีส่วนร่วม หลักการการเรียนรู้แบบมีส่วนร่วมได้รับการเสนอโดย Laufer และ Hulstijn (2001) ผู้อ้างถึงประสิทธิภาพของการเรียนรู้แบบมีส่วนร่วมต่อการเรียนรู้คำศัพท์และการจำคำศัพท์ ซึ่งประสิทธิภาพนี้มีผลมาจากองค์ประกอบของการเรียนรู้แบบมีส่วนร่วม นักศึกษาสาขาวิชาภาษาอังกฤษจำนวน 6 คนที่กำลังศึกษาอยู่ในมหาวิทยาลัยแห่งหนึ่งในประเทศไทยเข้าร่วมการสัมภาษณ์แบบกึ่งโครงสร้าง ก่อนที่นักศึกษาจะเข้าร่วมการสัมภาษณ์ นักศึกษาได้ทำแบบฝึกหัดคำปรากฏรวมที่ออกแบบภายใต้การเรียนรู้แบบมีส่วนร่วม นักศึกษาต้องศึกษาคำปรากฏรวมจากสื่อการเรียนรู้ซึ่งประกอบไปด้วยตัวอย่างประโยคและหน้าพจนานุกรมของคำปรากฏรวม เพื่อใช้ในการทำแบบฝึกหัด ผลของงานวิจัยพบว่านักศึกษามีการรับรู้เชิงบวกต่อการเรียนคำปรากฏรวมที่ออกแบบมาจากการเรียนรู้แบบมีส่วนร่วม ทั้งนี้ผลสะท้อนต่อการเรียนรู้แบบมีส่วนร่วมและการเรียนคำปรากฏรวมจากสื่อการสอนของนักศึกษายังได้อภิปรายในบทความนี้

คำสำคัญ: คำปรากฏรวม, การรับรู้, การเรียนรู้แบบมีส่วนร่วม, การเรียนรู้คำปรากฏรวม

Abstract

The purposes of the study were to explore the students' perceptions of the Involvement Load Hypothesis (ILH) and to investigate the perceptions of their collocation learning under the ILH. The ILH is proposed by Laufer and Hulstijn (2001) claimed its effect on vocabulary

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learning and retention due to its elements of the hypothesis. Six first-year English major students studying in a university in Thailand took the semi-structured interviews. Prior to the interview, the students were asked to do collocation exercises developed based on the ILH. The students needed to study collocations in the learning materials which contained the sentence examples and a page of the collocation in the Oxford Collocation Dictionary to finish the exercises. The result revealed a positive perception of learning collocation based on the ILH. The discussion was made based on the students' reflections on the ILH and collocation learning from the learning materials.

Keyword: Collocation, Perceptions, the Involvement Load Hypothesis, Collocation Learning

Introduction

Collocation, as an aspect of vocabulary knowledge, has gained more attention from scholars. The knowledge of collocation is also a key to indicate the natural use of the language. It was found that many collocations were used in communication. They lead to language fluency and accuracy in both written and spoken discourses (Erman & Warren, 2000). More importantly, Shin and Nation (2008) found a great number of collocations in the first 1,000 content words. This can be considered collocation a critical aspect in language communication.

However, problems in collocation use have arisen among EFL learners (Phoocharoensil, 2011 ; Suvarnamani, 2017 ; Yumanee & Phoocharoensil, 2013). Obviously, learners used so many collocations in their production; however, they could not meet the standard use of the English language due to their unawareness of word combinations. L1 intuitive knowledge was often involved when learners formed a collocation (Shokouhi & Mirsalari, 2010 ; Wasuntarasophit,

2015). Learners thought of the concept in their L1 which involved the L1 intuitive knowledge, then they directly translated it into L2 without being aware of the correct use of collocation. For example, Thai learners usually said 'play the Internet' instead of 'browse the Internet'. This is the impact of their intuitive knowledge of L2. The learners have low intuitive knowledge of L2, so when they meet or produce the collocations, they always think in Thai and directly translated the collocations.

Learners should raise their collocation awareness and enhance their collocations knowledge. As collocations are part of vocabulary, principles in vocabulary learning could advocate collocation learning as well. A principle in vocabulary learning named as the Involvement Load Hypothesis (ILH) claimed its effect on vocabulary and collocation learning and retention. Most studies provided quantitative data to indicate the effect of the ILH on the improvement of both vocabulary and collocation learning and retention. However, the qualitative data to indicate the students' learning process was limited. Therefore, the

present study aims to explore the students' perceptions towards the ILH and their collocation learning under the ILH.

Review of Literature

1. Collocation

Collocation is defined as the co-occurrence of words (Woolard, 2000). It is the combination of words in a predictable way (Hill, 2000) that covers many different kinds of formation. Moon (1997) claimed that collocation is a sequence of two or more words with either syntactic or semantic form to produce a meaningful and inseparable unit. Collocation can be formed into different patterns such as noun + noun (gas station), verb + noun (do yoga), adjective + preposition (aware of), phrasal verb (turn in), or fixed phrase (on the other hand). With various combinations of words, collocations, classified by Benson *et al.* (1986), are divided into lexical and grammatical collocations. Lewis (2000) mentioned that lexical collocations are the combination of two equal lexical components included of nouns, adjectives, verbs, and adverbs. Benson *et al.*, (1986) also suggested that the combination of verb and noun is frequently found among lexical collocations. In contrast, grammatical collocations consist of a lexical component (nouns, adjectives, or verbs) and a grammatical component (a preposition, an infinitive, or a clause) (Benson *et al.*, 1986).

2. The Involvement Load Hypothesis (ILH)

The ILH was proposed by Laufer and Hulstijn (2001) who claimed that vocabulary

learning and retention would be developed if the ILH was involved in learning. The motivation-cognitive construct as the components could improve vocabulary knowledge. Vocabulary learning under the ILH could strengthen motivation while attention and noticing and depth of processing as the cognitive components could raise learners' awareness of vocabulary. The components could help learners learn and retain vocabulary in their memory.

The ILH was classified and identified into need, search, and evaluation. Need as the motivation construct concerning the desire of learning. Need consists of three degrees: need was absent or none when learners had no need to study vocabulary; need was moderate when learners were asked to study vocabulary; and need was strong when learners decided to study vocabulary without any request. Search as a cognitive construct, attention and noticing, focusing on the availability of the vocabulary resources such glossary or dictionary for learners to study vocabulary. Search included two degrees: search was absent or none if vocabulary resources were provided; and search was moderate if learners studied vocabulary without any vocabulary resources. Evaluation as a cognitive construct, the depth of processing, relating to vocabulary learning and retention. Evaluation involved three degrees; evaluation was absent or none if learners learned a word without comparing to other words in context; evaluation was moderate if learners compared the word to

other words in context; and evaluation was strong if learners combined a word in their self-provided sentence.

These components could be designed into different degrees of involvement. For example, when the teacher asked learners to complete a sentence writing exercise with the target words in the glossary, the degrees

of the components included moderate need, none search, and strong evaluation. Need was moderate as learners were asked to study the target words; search was none as there was a glossary available as vocabulary resources; and evaluation was strong as learners were asked to construct a sentence with the target word themselves.

Table 1 Components and level of involvement by Laufer and Hulstijn (2001)

Components	Degrees of Involvement	Definitions
Need	Index 0 (none)	The learner does not feel the need to learn the word.
	Index 1 (moderate)	The learner is required to learn the word.
	Index 2 (strong)	The learner decides to learn the word.
Search	Index 0 (none)	The learner looks for the meaning or form of the word from the provided lexical instrument.
	Index 1 (moderate)	The meaning and form of the word are found by the learner.
Evaluation	Index 0 (none)	The word is not compared with any other words.
	Index 1 (moderate)	The word is compared with other words in the provided context.
	Index 2 (strong)	The word is compared with other words in a self-provided context (the learner's mental lexical).

Many studies investigated the effect of the ILH on vocabulary learning and retention by engaging the ILH with different tasks or exercises (e.g. Fallahrafi *et al.*, 2015; Hulstijn & Laufer, 2001). Feng (2015) found that the students who completed the task with a high degree of ILH outperformed the students who finished the task with lower. The effect of the ILH on different task types was also investigated and found that the effect of the productive tasks was significantly superior to the receptive tasks (Pourakbari & Biria, 2015). Additionally, Snoder (2017) investigated the effect of the ILH on collocation learning and found that there were some significant differences

between the highest and the lowest tasks ; however, no positive learning effect was found among the tasks in between. The ILH did not fully predict its effectiveness as the outcomes of the tasks with relatively higher degrees showed unexpected results which were not consistent with the hypothesis (Snoder, 2017). However, according to the related studies on the ILH, although the comparison between the tasks revealed various effects on the development of vocabulary learning, it seemed that a task designed under the ILH helps in enhancing vocabulary knowledge as well as collocation knowledge.

Methodology

1. Participants

Six students out of 39 first-year English major students were chosen as the representatives to express the perceptions towards collocation learning by the Involvement Load Hypothesis. They were studying the second semester of Academic Year 2019 at a university in Thailand. They were equally divided into the high and the low proficient students by the GPA. All of them were Thai and they did not have any experience in the L2 setting. According to the result of the English examination by the university, their scores were compared with the CEFR level and all of them were ranged at A2 level which is considered a basic user level of English.

2. Target collocations

The target collocations were carefully selected. The syntactic patterns, node word, frequency, and strength were considered the criteria of collocation selection. As the verb-noun and adjective-noun collocations were considered the most difficult which led to more errors, the patterns were the target collocations where a noun, as the node word, was shared in the patterns. The focused node words were the nouns in the first 1,000 words in the GSL. The checklist was provided for the students to mark on the words they had already known. This could extend and enrich vocabulary knowledge (Shin & Nation, 2008). Then the collocated words to each node word were checked with the Online Oxford

Collocations Dictionary to identify the actual use of the collocations. After that, the collocations were compared with the BNC. The collocations were selected by considering their frequency of co-occurrence and the Mutual Information (MI) for the participants to mark on the unknown collocations. The unknown collocations with a high frequency of co-occurrence were selected as the target collocations of the study. There were eight collocations including mental health, general health, damage health, improve health, dead weight, sheer weight, carry weight, and put weight.

3. Learning material

There were two learning materials which were the sentence examples and a page of the collocation dictionary. The participants were asked to read the sentence examples where each collocation was bolded. There were three-sentence examples for each collocation that were the authentic texts in the BNC concordance. Additionally, a page of the collocations from the Online Oxford Collocations Dictionary was also provided to examine the use of collocations. The page of the collocation included different collocates of a node word without providing any collocation meaning.

4. Collocation exercises

Three exercises were developed based on the ILH. The exercises involved collocation spelling, collocation fill-in, and collocation translation exercises.

Collocation spelling exercise

Participants were provided with the learning materials. They were asked to write the collocations' spelling on the available spaces. This exercise revealed moderate need and search as the participants needed to complete the exercise with the target collocations, and study the collocations in the materials. However, the evaluation was absent since participants did not compare any answers in each item of the exercise. Hence, the degree of the involvement load hypothesis was two (1, 1, 0).

Collocation fill-in exercise

Participants were provided with the learning materials. They had to read the sentences and complete the sentence by the collocates. The node words for each collocate were bold while the target collocates were left blank. However, the participants were guided by the first letter of the collocates. Need, search, and evaluation were moderate. The participants needed to complete the exercise with the target collocations, study the collocations in the materials and compare their answers in the provided sentences. Hence, the degree of the involvement load hypothesis was three (1, 1, 1).

Collocation translation

Participants translated the sentences by using the target collocations. During completing the exercises, they were provided with the learning materials. The sentences were in Thai and the participants had to translate them into English. The exercises

included moderate need and search as the participants needed to complete the exercise with the target collocations, and study the collocations in the materials. Besides, the evaluation was strong since the participants had to compare the collocation with other words in their translation. Hence, the degree of the involvement load hypothesis was four (1, 1, 2).

5. Semi-structured interview

The semi-structured interview provided information related to the perceptions of collocations learning under the ILH. The questions were developed to explore the participants' perceptions towards learning collocations under the ILH. The questions arose over the perceptions of the ILH and the perceptions of learning collocation under the ILH. The interview was conducted in Thai and the questions were validated by a Thai English teacher and a student to avoid reading ambiguity.

6. Procedure

Before participating in the study, the participants were announced the learning objectives and were asked for their permission by filling the consent form. They were told to read and study the sentence examples and the dictionary before receiving an explicit instruction on the collocations. After that, the participants practiced using the collocations from the provided exercises involving collocation spelling, collocation fill-in, and collocation translation exercises respectively. Finally, the participants who were equally

selected from the high and low proficiencies grouped by their GPA, were chosen to attend the semi-structured interview.

7. Data collection and analysis

The study provided qualitative data of the students' perceptions towards learning collocations under the ILH. The data from the semi-structured interview were recorded, and then it was transcribed and analyzed by finding the silent features and grouping for explanations.

Results and Discussion

The results of the study could indicate the students' perceptions of collocation learning under the ILH. The data from the interview were analyzed and were categorized. Finally, the results were divided into the students' perceptions of the ILH and their collocation learning under the ILH.

1. The students' perceptions towards the ILH

The students had positive perceptions of the ILH. The students preferred learning collocations from the exercises under the ILH. They also reflected that after completing the exercises based on the ILH, they knew more collocations and understood the use of the collocations. Additionally, those collocations were retained in their memory.

"The exercises helped me study collocations' meaning and spelling."-student 1

"The exercises helped me memorize the meaning and the use of the collocations"-student 3

"The exercises helped me a lot because I could learn the collocations and practice using them."-student 5

The results of the students' perceptions towards the ILH that the ILH affected collocation learning as well as vocabulary learning. The results were consistent with Fallahrafie *et al.*, (2015), Laufer and Hulstijn (2001), Pourakbari and Biria (2015), and Snoder (2017) as they found the improvement of vocabulary learning and retention. The students studied the collocations by completing exercises in which each exercise was developed to increase the degree of evaluation. This could enhance the student's retention as the evaluation of the ILH was designed based on the depth of processing. This was in line with Craik and Lockhart (1972) who pointed out that the depth of processing is related to learning and memory. Therefore, the exercises under the ILH led to the improvement of collocation knowledge, and the students could memorize the collocations after completing the exercises.

2. The students' perceptions of collocation learning under the ILH

The students reflected on their collocation learning while completing the exercises under the ILH. They claimed that they always studied the use of the collocations from the sentence examples and the page of the collocation dictionary again. They also mentioned that the reviewing of the learning material during doing the exercise could help

them memorize the collocations. The students' reflections were as follows.

"During doing the exercises, I went back to study the meaning in the dictionary and sentence reading. The dictionary and the sentence examples helped me figure out the meaning."-student 1

"I did the exercises by reviewing the examples and the dictionary."-student 2

"The exercises helped me memorize the meaning and the use of the collocations. When I did the exercises, I looked at the learning material and tried to complete the exercises."-student 4

"I did the collocation fill-in exercise by reading the sentence examples again."-student 5

"I studied the dictionary again to complete the exercises."-student 6

The students learned collocations by studying from sentence examples and the dictionary. The learning process was consistent with Laufer and Hulstijn (2001) who provided the elements of the ILH including need, search, and evaluation. The students reflected on what resources they searched for the definition of the collocations. The students elaborately reviewed the sentence examples and the dictionary to complete each exercise. They could raise their noticing since they repeatedly studied collocations in the sentences and the dictionary. Additionally, the collocations were bolded to attract their

attention and noticing.

Besides, the students also reflected how they studied the collocations from sentence examples and the dictionary. They claimed that they tried to read and identify the collocations by reading the sentences ; however, some sentences were difficult. Additionally, some of them responded that they studied collocations from the dictionary ; nevertheless, they revealed a negative perception of the use of the page of the collocation dictionary since the student got confused as there were many words available in the dictionary.

"When reading a sentence, I tried to guess the meaning of the collocations, but some words were difficult."-student 1

"I guessed the meaning of the words to determine the meaning of the target collocations. Although some words had called my attention, I could shift my attention to the collocations as they were the requirement."-student 2

"I did not understand how to use the dictionary. I did not know what to focus on."-student 3

"I did not look at the dictionary at all."-student 6

"Dictionary did not help me that much. I thought there were too many words in the dictionary, so I got confused."-student 5

The sentence examples from the BNC concordance could be a resource to enhance

collocation knowledge. The reflection of the students on the study from sentence examples was consistent with Dankittikul and Laohawiriyanon (2018) and Yaemtui and Phoocharoensil (2019) who found the effect of the Data-Driven Language (DDL) on collocation learning. Learning by the DDL, especially the sentence examples from the BNC concordance, provided rich authentic examples to discover and study the use of language. The students could pay attention and notice the use of the language by reading and focusing on the collocations. In contrast, the students claimed the problem experiencing during completing the exercises that some collocations were hard to identify because of the unknown words in the sentences. The problem was criticized by Mahvelati (2019) who claimed that the students might not focus on the collocations if there were many provided examples. However, according to the students' reflection, they could shift their attention to the target collocations since the collocations were required to complete the exercises. Therefore, learning collocations from the exercises based on the ILH, the students could concentrate on the collocations whether they had to study the collocations from sentence examples.

The student's reflection on the use of the collocation dictionary was in line with Chen (2016) who claimed the ineffective collocation learning by the collocation dictionary due to the inadequate dictionary skills. Although the dictionary could be a useful resource for language learning, a collocation dictionary

is different from a monolingual and bilingual dictionary since the collocation dictionary did not provide any explicit meaning of the collocations. The students needed more dictionary skills since they could see only other collocates of a node word with a few sentence examples. The inadequate dictionary skill might lead to learning difficulty for the students to study the collocations. The students were not able to distinguish the collocates and notice the collocations in the dictionary (Chen, 2016).

Conclusion

The Involvement Load Hypothesis has perceived a positive perception in collocation learning. The perceptions from the students indicated the effect of the ILH on collocation learning and retention. The students studied collocations from the sentence examples and the dictionary to complete the exercises. They learned the use of collocations by reading from the sentence examples as well as discovering the collocations in the dictionary. However, although the students had some difficulty in learning collocations from the sentence examples, they could shift their attention back to focus on the collocations used in the sentences. Additionally, engaging in a collocation dictionary might not be effective in collocation learning due to the requirement of dictionary skills.

The design of the ILH could be implicated. Teachers can develop collocation exercises by involving the design of the ILH. Additionally, sentence examples and the

collocation dictionary can be included as the learning materials in the design. However, if the sentence examples are employed, teachers should screen the sentences before adopting them as the learning material. This can minimize

their learning difficulty when experiencing some difficult vocabulary. Moreover, teachers should train the students to use the collocation dictionary since learning by this material requires dictionary skills.

References

- Benson, M., Benson, E. & Ilson, R. (1986). *The BBI combinatory dictionary of English: A guide to word combinations*. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Chen, Y. (2016). Dictionary use for collocation production and retention: A call-based study. *International Journal of Lexicography*, 30(2), 225-251. Available at: <https://doi.org/10.1093/ijl/ecw005>.
- Craik, F. I. M. & Lockhart, R.S. (1972). Levels of processing: A framework for memory research. *Journal of Verbal Learning and Verbal Behavior*, 11, 671-684. Available at: [https://doi.org/10.1016/S0022-5371\(72\)80001-X](https://doi.org/10.1016/S0022-5371(72)80001-X).
- Dankittikul, T. & Laohawiriyanon, C. (2018). Effect of Paper-based Concordance on Thai Low Proficiency English Language Learners' Logical Connector Knowledge. *Veridian E-Journal*, 11(4), 61-78.
- Erman, B. & Warren, B. (2000). The idiom principle and the open choice principle. *TEXT*, 20(1), 29-62. Available at: <https://doi.org/10.1515/text.1.2000.20.1.29>.
- Fallahrafi, Z., Rahmany, R. & Sadeghi, B. (2015). The effect of task-based teaching on incidental vocabulary learning in English for specific purposes. *Cumhuriyet science journal*, 36(3), 836-846.
- Feng, T. (2015). Involvement load in translation tasks and EFL vocabulary learning. *The New English Teacher*, 9(1), 83-101.
- Hill, J. (2000). Revising priorities: From grammatical failure to collocational success. In M.Lewis (ed.). *Teaching collocation: Further development in the lexical approach*. (pp. 47-69). Hove, England: Language Teaching Publications.
- Hulstijn, J.H. & Laufer, B. (2001). Incidental vocabulary acquisition in a second language: The construct of task-induced involvement. *Applied Linguistics*, 22(1), 1-26. Available at: <https://doi.org/10.1093/applin/22.1.1>.
- Laufer, B. & Hulstijn, J. H. (2001). Incidental vocabulary acquisition in a second language: The construct of task-induced involvement. *Applied linguistics*, 22, 1-26.
- Lewis, M. (2000). *Teaching collocation: Further development in the lexical approach*. London: Language Teaching Publications.

- Mahvelati, E.H. (2019). Explicit and implicit collocation teaching methods: Empirical research and issues. *Advances in Language and Literary Studies*, 10(3), 105-116. Available at: <https://doi.org/10.7575/aiac.all.v.10n.3p.105>.
- Moon, R. (1997). Vocabulary connections: Multi-word items in English. In N. Schmitt & M. McCarthy (Eds.). *Vocabulary: Description, acquisition and pedagogy*. (pp. 40-63). Cambridge: Cambridge University Press.
- Phoocharoensil, S. (2011). Collocation errors in EFL learners' interlanguage. *Journal of education and practice*, 2(3), 103-120.
- Pourakbari, A.A. & Biria, R. (2015). Efficacy of task-induced involvement in incidental lexical development of Iranian senior EFL students. *English Language Teaching*, 8(5), 122-131. Available at: <https://doi.org/10.5539/ELT.V8N5P122>.
- Shin, D. & Nation, P. (2008). Beyond single words: The most frequent collocations in spoken English. *ELT journal*, 62(4), 339-348. Available at: <https://doi.org/10.1093/ELT/CCM091>.
- Shokouhi, H. & Mirsalari, G. (2010). Collocational knowledge versus general linguistic knowledge among Iranian EFL learners. *TESL-EJ*, 13(4), 9.
- Snoder, P. (2017). Improving English learners' productive collocation knowledge: The effects of involvement load, spacing, and intentionality. *TESL Canada Journal*, 34(3), 140-164. Available at: <https://doi.org/10.18806/TESL.V34I3.1277>.
- Suvarnamani, S. (2017). A study of grammatical and lexical errors in descriptive writing of first year Arts Students at Silpakorn University. *Silpakorn university journal of social sciences, humanities, and arts*, 17(2), 239-264.
- Wasuntarasophit, S. (2015). Explicit instruction of collocations: An impact on learners' use and perceptions. *Journal of humanities and social sciences*, 11(2), 37-71.
- Woolard, G. (2000). Collocation-encouraging learner independence. In M. Lewis (ed.). *Teaching collocation: Further development in the lexical approach*. (pp. 28-46). London: Language Teaching Publications.
- Yaemtui, W. & Phoocharoensil, S. (2019). Effectiveness of Data-driven Learning (DDL) on Enhancing High-proficiency and Low-proficiency Thai EFL Undergraduate Students' Collocational Knowledge. *The Asian EFL Journal*, 23(3.2), 290-314.
- Yumanee, C. & Phoocharoensil, S. (2013). Analysis of collocational errors of Thai EFL students. *Language Education and Acquisition Research Network*, 1(1), 90-100.