The Effects of Supplementary Vocabulary Exercises in Local Context
to Improve Vocabulary Knowledge for Mathayom Suksa 5 Students
at Erawan Wittayakom School Erawan District, Loei Province
ผลของการใช้แบบฝึกหัดเสริมคำศัพท์ในบริบทท้องถิ่นเพื่อพัฒนาความรู้คำศัพท์
สำหรับนักเรียนชั้นมัธยมศึกษาปีที่ 5 โรงเรียนเอราวัณวิทยาคม อำเภอเอราวัณ จังหวัดเลย

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บทคัดย่อ

งานวิจัยนี้มีวัตถุประสงค์เพื่อ 1) สร้างแบบฝึกหัดเสริมคำศัพท์ในบริบทท้องถิ่นเพื่อพัฒนาความรู้คำศัพท์สำหรับนักเรียนมัธยมศึกษาปีที่ 5 และ 2) เพื่อหาผลของการใช้แบบฝึกหัดเสริมคำศัพท์ในบริบทท้องถิ่นเพื่อพัฒนาความรู้คำศัพท์ กลุ่มตัวอย่างที่ใช้ในงานวิจัยนี้คือ นักเรียนระดับชั้นมัธยมศึกษาปีที่ 5 โรงเรียนเอราวัณวิทยาคม อำเภอเอราวัณ จังหวัดเลย ในปีการศึกษา 2559 จำนวน 30 คน เครื่องมือที่ใช้ในการวิจัยประกอบด้วย แบบทดสอบคำศัพท์ก่อนเรียนและหลังเรียน แบบฝึกหัดเสริมการเรียนรู้คำศัพท์ แบบสอบถาม และแบบสัมภาษณ์ ผลของการศึกษาวิจัยพบว่าแบบฝึกหัดเสริมคำศัพท์ในบริบทท้องถิ่นมีค่าประสิทธิภาพและประสิทธิผลสูงกว่าเกณฑ์มาตรฐานที่ตั้งไว้ และผลคะแนนการทดสอบหลังเรียนมีค่าสูงกว่าผลคะแนนทดสอบก่อนเรียนอย่างมีนัยสำคัญทางสถิติที่ระดับ .001 และผู้เรียนสามารถพัฒนาความรู้คำศัพท์ในด้านการรับรู้คำศัพท์ ความหมาย และการนำไปใช้ได้ถูกต้องตามบริบทที่เหมาะสม

คำสำคัญ: ความรู้ด้านคำศัพท์ แบบฝึกหัดเสริมคำศัพท์ บริบทท้องถิ่น

Abstract

The purposes of the study were to 1) design a supplementary vocabulary learning exercise in local context to improve vocabulary knowledge for Mathayom Suksa 5 students; 2) determine their effects on Mathayom Suksa 5 students' vocabulary knowledge. The participants of this study comprised of 30 Mathayom Suksa 5 students of academic year 2016 at Erawan Wittayakom School in Erawan District, Loei Province and the research instruments included a pre-vocabulary test, supplementary vocabulary leaning exercises in local context, a questionnaire, an interview and a post-vocabulary test. The results of the study revealed that the effectiveness and efficiency of the supplementary vocabulary learning exercises in local context were higher than the standard criteria. The pre- and post-test scores were significantly different at the level .001. It is also mentioned that the Mathayom Suksa 5 students

could improve their vocabulary knowledge in terms of word recognition, understanding meaning and word use at their appropriate level.

Keywords: vocabulary knowledge, supplementary vocabulary exercise, local context

1. Rationale and Background

Vocabulary is one of the most essential aspects in language learning. Good vocabulary knowledge is a foundation of language proficiency as Nation (1994) stated that "Vocabulary is not an end in itself. A rich vocabulary makes the skills of listening, speaking, reading, and writing easier to perform. In harmonious with Nation, Wilkins (1972) also proposed that "without grammar very little can be conveyed, without vocabulary nothing can be conveyed." Thus, the more vocabulary known, the more successful language learning will become.

Despite the importance of vocabulary in language acquisition, many researchers claimed that vocabulary learning is one of biggest problems in learning English (Duadsuntia, 2008; Liangpanit, 2002). One solution is to give students exercises to enrich their vocabulary. Many studies revealed the usefulness of exercises towards vocabulary learning in another language (Paribakht & Wesche, 1997; Zimmerman, 1997)

Like many Thai students, students at Erawan Wittayakom School have not succeeded in English language learning.   While the average Ordinary National Educational Test (O-NET) scores of English in academic year 2015 and 2016 are 24.98 and 27.76 respectively for Mathayom 6, an average O-Net score of Mathayom 6 students at Erawan Wittakom School was 20.98 and 22.68 (National Institute of Educational Testing Service (Public Organization), 2016, 2017).   It can be concluded that the average score of Erawan Wittayakom School is still far behind the national average score.

As a result, a preliminary study was conducted via a survey of Mathayom Suksa 5 students at Erawan Wittayakom School.   Three teachers and 30 Mathayom Suksa 5 students were asked to complete a questionnaire in order to list problems in English learning and teaching. The study revealed five main problems namely vocabulary, speaking, pronunciation, reading and writing respectively. From the problems mentioned, constructing the vocabulary exercises for the students is one way to help them improve their vocabulary knowledge at a certain level.

Purposes of the Study

1. To design supplementary vocabulary exercises in local context to improve vocabulary knowledge for Mathayom Suksa 5 students.

2. To determine the effects of supplementary vocabulary exercises in local context to improve vocabulary knowledge for Mathayom Suksa 5 students.

Research Questions

1. What are the effects of supplementary vocabulary exercises in local context to improve vocabulary knowledge for Mathayom Suksa 5 students?

2. To what extents could supplementary vocabulary exercises in local context improve Mathayom Suksa 5 students' vocabulary knowledge ?

2. Definition of Terms

1. "Students" refers to Mathayom Suksa 5 students at Erawan Wittayakom School during academic year 2016.

2 "Supplementary vocabulary exercises in local context to improve vocabulary knowledge" refers to vocabulary exercises to support students' vocabulary knowledge.

3. "Local context" refers to the social context of people living in Erawan Sub-district, Erawan District, Loei Province.

3. Research Methodology

Participants

The participants of the study were 30 Mathayom Suksa 5 students at Erawan Wittayakom School of academic year 2015 chosen by purposive sampling method.

Research Instruments

In order to find the answers to the research questions, four research instruments were applied, which were pre- and post- vocabulary test, supplementary vocabulary knowledge exercise, questionnaire, and interview. The following table presents the research instruments applied in the study.

Research questions	Research Instruments
1. What are the effects of supplementary vocabulary exercises in local context to improve vocabulary knowledge for Mathayom Suksa 5 students?	• pre-vocabulary test • post-vocabulary test • supplementary vocabulary exercises in local context
2. To what extents could supplementary vocabulary exercises in local context improve Mathayom Suksa 5 students' vocabulary knowledge?	• questionnaire • semi-structured interview

● Pre-and Post-Vocabulary Tests

The pre-vocabulary test was designed by using VKS (Vocabulary Knowledge Scale) to assess the Mathayom Suksa 5 students' vocabulary knowledge before the implementation of the

supplementary vocabulary exercises in local context to improve vocabulary knowledge while the post-vocabulary test was designed to assess the students' vocabulary knowledge after learning from the supplementary vocabulary exercises in local context to improve vocabulary knowledge.

● **The Supplementary Vocabulary Exercises in Thai Local Context**

1) Vocabulary Selection

The selection of the vocabulary included the words listed in Cambridge English Vocabulary List. The list covers vocabulary appropriate to the B1 level on the Common European Framework of Reference for Languages (CEFR)as, according to the Ministry of Education, students are expected to reach B1 level of CEFR by the end of Mathayom Suksa 6.

The three English teachers at Erawan Wittayakom School were asked to check the wordlist for the words thought to be difficult for students and students in Mathayom Suksa 5 should know. The words from teachers' list and students' list were compared to find overlapped words. The words then were grouped into themes taken from the themes following the Basic Curriculum of the Ministry of Education 2008 and CEFR vocabulary range. The words were designed and provided through the supplementary vocabulary exercises.

2) Design of Supplementary vocabulary exercises in local context

The supplementary vocabulary exercises in local context consisted of 5 units following the themes in the curriculum and CEFR vocabulary range. Each unit was completed within any two hours of a week outside class. These 5 units consisted of 50 words. Each unit consisted of 10 words, which were presented in three activities and seven vocabulary exercises. The students learned through five weeks. The theories applied in each activity were presented in each unit of the supplementary vocabulary exercises in local context.

The reason why the students had to learn 10 words per unit was because 10 words is an appropriate number of words per unit in order to enhance leaners' vocabulary learning (Nation, 2001). The students studied 10 words related to the theme by using various techniques such as pictures, illustrations, passages or guessing from context as an average of eight to twelve of new words should be learnt in a lesson. If too many words are to be learnt, students will fail in memorizing the target words (Gains & Redman, 2007).

● **Questionnaire**

The purpose of the questionnaire was to answer research question 2. This questionnaire was constructed after the students learn the target vocabulary from supplementary vocabulary exercises in local context. The questionnaire was divided into two parts. The first part of the questionnaire asked about the students' opinions towards the supplementary vocabulary exercises in local context.   The second part of the questionnaire was open-ended questions for students' suggestions and comments towards the supplementary vocabulary exercises in local context. The questionnaire was given to the

students after they finished learning from the supplementary vocabulary exercises in local context. The data collected was analyzed by mean ($\bar{x}$) and standard deviation (S.D.).

- **Interview**

A semi-structured interview was carried out with 10 Mathayom Suksa 5

students in order to answer research question 2: to what extents could the supplementary vocabulary exercises in local context improve Mathayom Suksa 5 students' vocabulary knowledge? Each interviewee spent approximately 15 minutes joining in the interview session.   The interview questions were sought to express the students' opinions related to the supplementary vocabulary exercises in local context.

Data Collection

The first session of data collection started in the first semester of academic year 2016. The survey of students and teachers' wordlist was administered.   Then the three English teachers were asked to check the words appropriate for the students' level and Mathayom Suksa 5 students were asked to check the words they did not know. A comparison of the two lists yielded the 50 overlapping words.

The second session, the construction of the supplementary vocabulary exercises in local context was conducted. The exercises undertook three steps with Mathayom Suksa 5 students piloting to adjust and find the validity to guarantee the exercises' quality.

The third session, the 30 participants took the pre-vocabulary test in the first week of the class in order to test their vocabulary knowledge before start learning from the supplementary vocabulary exercises in local context.   The participants spent two hours per week learning each unit of the supplementary vocabulary exercises in local context.

Before learning each unit of the supplementary vocabulary exercises in local

context, the participants took the test in order to check their vocabulary knowledge of the target words. At the end of the unit, they took the same test again as the evaluation of the unit.

The last session, the questionnaire and interview were administered. The results were used to study the students' opinions on how their vocabulary knowledge had improved after doing the supplementary vocabulary exercises.

Data Analysis

The data were analyzed by mean ($\bar{x}$)**,** standard deviation (S.D.), t-test by using the Statistical Package for Social Sciences (SPSS) and content analysis. The scores of pre- and post-vocabulary tests were compared by mean ($\bar{x}$), standard deviation (S.D.), and t-test. Content analysis was used to interpret the data obtained from the interview.

4. Results and Discussion

Results of research question 1: What are the effects of supplementary vocabulary exercises in local context for Mathayom Suksa 5 students?

The purpose of this research question was to determine the effects of the designed exercises and whether it helped develop Mathayom Suksa 5 students' vocabulary knowledge.

It was found that the scores of the pre-vocabulary test and the post-vocabulary test were significantly different (t = 16.136, df = 29), which suggested that the participants scored significantly higher in the post-vocabulary test than the pre-test. Thus, it can be concluded that the supplementary vocabulary exercises in local context can be used as a tool to enhance the participants' vocabulary knowledge as presented in Table 1.

Table1: The statistical difference value of the pre-and post-vocabulary test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	S.D.	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 pre-post	21.33	7.241	1.322	24.037	18.629	16.136	29	0.000

Results of research question 2: To what extents could a supplementary vocabulary exercises in local context improve the Mathayom Suksa 5 students' vocabulary knowledge?

The purpose of research question two is to investigate the extents to which supplementary vocabulary exercises in local context improve the participants' vocabulary knowledge. To answer this research question, a questionnaire and semi-structured interview were used. Data collected from the questionnaire were analyzed by descriptive statistics including, mean ($\bar{x}$), standard deviation (S.D.), frequency and percentage in SPSS program and interpreted according to the following ranges (Sclove, 2001):

Very high	=	4.50-5.00
High	=	3.50-4.49
Moderate	=	2.50-3.49
Low	=	1.50-2.49
Very Low	=	1.00-1.49

Results of the Questionnaire Table 2: The Results of the Questionnaire

Items	$(\bar{x})$	S.D.	Level
1. The supplementary vocabulary exercises in local context help me improve my vocabulary knowledge.	4.55	.76	Very High
2. The supplementary vocabulary exercises in local context help me to recognize the target words.	4.02	0.81	High
3. The supplementary vocabulary exercises in local context help me understand the meaning of the target words.	3.97	.72	High
4. The supplementary vocabulary exercises in local context help enable me to use the target words correctly.	3.90	.92	High
6. The supplementary vocabulary exercises in local context help enable me to use the target words correctly.	4.03	.85	High
7. The seven vocabulary exercises included in the supplementary vocabulary exercises in local context help me improve my vocabulary knowledge.	4.07	.74	High
8. I think that the matching exercise is useful in improving my vocabulary knowledge.	3.93	.74	High
9. I think that the gap-filling exercise is useful in improving my vocabulary knowledge.	4.13	.57	High
10. The matching exercise is effective in making me understand the word meaning.	4.20	.76	High
11. The gap-filling exercise is in making me understand the word meaning.	4.10	.55	High
12. The passages included in the supplementary vocabulary exercises in local context help me to guess the target words in the context.	3.90	.80	High
13. The gap-filling exercise enable me to use the target words in the context easily.	3.87	.68	High
14. The target words included in the supplementary vocabulary exercises are grouped into various themes to learn.	3.62	.74	High
15. The part of speech exercise helps enable me to use the target words correctly and comprehend the word meaning better.	3.70	.88	High
16. The Supplementary vocabulary exercises in local context stimulate me to have more motivation in learning the target words.	4.17	.59	High
Average	4.01	0.74	High

From Table 2, in response to research question 2, the questionnaire results showed that the students agreed that the supplementary vocabulary exercises in local context could help them improve their vocabulary knowledge at a high level.

● **Results from the Interview and Discussion**

Ten participants were interviewed to what extents could a supplementary vocabulary exercises in local context improve the Mathayom Suksa 5 students' vocabulary knowledge.

The findings revealed that the exercises helped the students improve the vocabulary knowledge in terms of word recognition, understand the meaning of words, word remembrance, and correct use of words, respectively.

Word Recognition

Eight interviewees with both high and low English proficiency reported that the supplementary vocabulary exercises helped them recognize the target words. They learned word spelling, written forms of the words, and word pronunciation. The participants became familiar with these words so they recognize the words when the words were heard or seen elsewhere.

Understand Word Meaning

Six interviewees with both high and low English proficiency said that the supplementary vocabulary exercises helped them understand the meaning of target words. It can be concluded that the participants accomplished the vocabulary learning goals in terms of word meaning as it was proposed by Aebersold and Field (1997); Catalan (2003); Nation (2001); Ooi and Lee (1996) that vocabulary goals consist of word recognition, word meaning, and word use.

Word Remembrance

Nine interviewees mentioned that studying ten new target words in each unit helped them remember the words well because ten words was an appropriate number for the interviewees to remember. In addition, eight interviewees also reported that seven repetitions of the words presented in seven activities in each unit of the exercises facilitated the students in remembering the target words. It can be concluded that the students will be able to remember the target words well if they repetitively meet each word at least seven times in one unit.   The findings are in harmonious with Crothers and Suppes (1967); Nation (1982); Saragi et al. (1978, p.72-78); Tinkham (1993); Wallace (1984) about six or seven repetitions of the same word in one lesson.

Correct use of words in local context

Nine interviewees reckoned that studying ten new target words study per unit helped them to use the words correctly because these words were presented in local context that the participants are familiar with.   Many scholars, for example: Nagy (1987); Nation (1990); Read (2000); Schmitt (2000); Thornbury (2002) pointed out that guessing the word meaning through context is an effective strategy for dealing with unknown or unfamiliar words.

5. Conclusion and Recommendation

The further research on the design of supplementary vocabulary exercises in local context can be undertaken in CALL program.   Vocabulary tests, such as Vocabulary Knowledge Scale (VKS) test should be administered more deeply in the next study in order to measure the depth of students' vocabulary knowledge and vocabulary acquisition.

The exercises were useful for Mathayom Suksa 5 students in improving their vocabulary knowledge and stimulating ideas for upper secondary teachers to design additional materials for vocabulary learning and teaching.

References

สถาบันทดสอบทางการศึกษาแห่งชาติ (องค์การมหาชน). (2559). *สรุปผลการทดสอบทางการศึกษาระดับชาติขั้นพื้นฐาน (O-NET) ชั้นมัธยมศึกษาปีที่ 6 ปีการศึกษา 2558.* สืบค้น 13 สิงหาคม 2559, จาก http://www.onetresult.niets.or.th/AnnouncementWeb/Login.aspx.

สถาบันทดสอบทางการศึกษาแห่งชาติ (องค์การมหาชน). (2560). *สรุปผลการทดสอบทางการศึกษาระดับชาติขั้นพื้นฐาน (O-NET) ชั้นมัธยมศึกษาปีที่ 6 ปีการศึกษา 2559.* สืบค้น 20 มีนาคม 2560, จาก http://www.onetresult.niets.or.th/AnnouncementWeb/Login.aspx.

Aebersold & Field. (1997). *Language and Teaching English: a Course for Teacher.* UK : Oxford University Press.

Catalan, R. (2003). *Sex Differences in L2 Vocabulary Strategy. Journal of Applied Linguistics, 13*(1), 54-77.

Crothers, E.& Suppes, P. (1967) *Experiments in Second-Language Learning.* New York : Academic Press.

Duadsuntia, T. (2008). *Using a keyword method to enhance learners' vocabulary recall and retention* (Master's Thesis). Khon Kaen : Khon Kaen University.

Gairns, R., & Redman, S. (2007). *Working with words: a guide to teaching and learning vocabulary.* UK : Cambridge University Press.

Liangpanit. (2002). *Supplementary Vocabulary Exercises in Student Weekly* (Master's Thesis). Khon Kaen : Khon Kaen University.

Nagy, W.E. (1997). On the role of context in first- and second-language vocabulary learning. In Schmitt, N. & McCarthy, M. (Eds.), *Vocabulary: Description, acquisition, pedagogy* (pp. 64-83). UK : Cambridge University Press.

Nation, I.S.P. (1982). Beginning to learn foreign vocabulary: a review of the research. *RELC Journal, 13,* 14-36.

Nation, I.S.P. (1990). *Teaching and Learning Vocabulary.* New York : Newbury House.

Nation, I.S.P. (1994). *New Ways in Teaching Vocabulary.* USA : TESOL Press.

Nation, I.S.P. (2001). *Learning Vocabulary in Another Language.* UK : Cambridge University Press.

Ooi, & Lee. (1996). Vocabulary teaching: looking behind the words. *ELT Journal, 50*(1), 43-56.

Paribakht, T., & Wesche, M. (1997). Vocabulary enhancement activities and reading for meaning in second language acquisition. In. J. Coady, & T. Huckin (Eds.), *Second Language Vocabulary Acquisition* (pp.174- 200). UK : Cambridge University Press.

Read, J. (2000). *Assessing Vocabulary.* UK : Cambridge University Press.

Saragi, T., I. S. P. Nation., & G. F. Meister. (1978). Vocabulary learning and reading. *System, 6*(2), 72–78.

Schmitt, N. (2000). *Vocabulary in Language Teaching*. U.K : Cambridge University Press.

Thornbury, S. (2002). *How to Teach Vocabulary*. Harlow, UK : Pearson.

Tinkham, T.M. 1993: The effect of semantic clustering on the learning of second language vocabulary.
    System, 21, 371–80.

Wallace, M. (1984). *Teaching Vocabulary*. London: Heinemann.

Wilkins, D. A. (1972). *Linguistics in language teaching*. London: Edward Arnold.

Zimmerman, C. B. (1997). Historical trends in second language vocabulary instruction. In J. COADY, & T.
    HUCKIN (Eds.), *Second Language Vocabulary Acquisition*: *A Rationale for Pedagogy* (p.5-19)
    New York: Cambridge University Press.

Translated Thai References

National Institute of Educational Testing Service (Public Organization). (2016). *Summary of Ordinary
    National Education Test (O-NET) Results of Mathayomsuksa 6 Academic Year 2015*. Retrieved
    August 13, 2016, from http://www.onetresult.niets.or.th/Login.aspx. [in Thai]

National Institute of Educational Testing Service (Public Organization). (2017). *Summary of Ordinary
    National Education Test (O-NET) Results of Mathayomsuksa 6 Academic Year 2017*. Retrieved
    March 20, 2017, from http://www.onetresult.niets.or.th/Login.aspx. [in Thai]