

Research Article

The Implementation of Vocabulary Mind Mapping to Enhance Business English Vocabularies of Vocational Certificate I Students

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Abstract

This classroom research aimed to examine the implementation of the vocabulary mind mapping teaching technique in recalling and memorizing learned business English vocabularies of Vocational Certificate I students at Hatyai Amnuaywit Technological College, Songkhla Province. Selected by the purposive sampling technique, the sample consisted of 36 students who enrolled for English for Office Work in the academic year 2021. The research instruments contained the pre-test and the post-test divided into five lexical sets, five lesson plans, and five vocabulary mind-mapping teaching activities. The obtained data was analyzed by the SPSS software. The statistics used to analyze the data were mean, percentage, standard deviation, and paired sample t-test. The study revealed that students' abilities in recalling and memorizing their learned business English vocabularies were obviously increased after using the vocabulary mind mapping teaching activities in the classes, with the mean score of the pre-test at 14.11 and the mean score of the post-test at 25.86, while the result of the paired sample t-test marked statistically significant difference at .05. This study suggests that the vocabulary mind mapping teaching technique should be applied for business English classes since it plays a significant role in English learning of Thai EFL vocational students.

Keywords: Mind Mapping, Vocabularies, Business English

Introduction

To accumulate a large number of lexicons in a language will pave the way for learners to master the language faster and be more likely successful. There is no single human language without a single vocabulary. Vocabularies are fundamentally important to make a learner to perform for all kinds of language skills: reading, speaking, listening, writing, and communication (Pekka, 2013). The learning of vocabulary is an important process that a language learner needs to continuously maintain and establish. Sedita (2005) stated that “vocabulary encompasses all the words we must know to access our background knowledge, express our ideas and communicate effectively, and learn about new concepts” (p. 33). This can be a significantly challenging process because one must accumulate a good amount of vocabulary knowledge, and one of the most difficult problems that most language learners usually face with is their long-term ability to recall their lexical items they have learned. Rohmatillah (2014) confirmed that “Without sufficient vocabulary, people cannot communicate and express their feeling both in form of spoken and written effectively” (p. 69). It can be inferred that, in teaching a language, a teaching method plays a significant role in enhancing students to yield fruitful vocabularies for their usages. However, these days, newer applications and strategies for teaching a language are constantly emerging due to technology advancement and changing environment of teaching and learning. For example, the use of an infographic organizer to design a historical model in a history class can enhance students’ critical and analytical thinking skills, and it can be integrated into other areas of teaching and learning history (Yupakde & Keeratichamroen, 2022). Similarly, the implementation

of a vocabulary mind map is also seen and widely used for both online and in-class teaching and learning in almost every level of classes. Opinaldo (2021) insisted that using a vocabulary mind map will significantly enhance learners’ abilities in vocabulary retention.

Known as word maps or spider grams (British Council, 2022), vocabulary mind maps enhance learners to generate words and relationships between the words and other words. The vocabulary mind mapping technique can be considered as one of the most effective strategies for teaching vocabulary. This is because the technique will activate a learner’s previous knowledge and allow them to present other related words. Mind mapping is a visual tool that helps learners to manage words into a different category and make learners to remember those words better (The Bell Team, 2020). Alqahtani (2015) stated that when learners master sufficient new words in learning a language or the second language, their language skills: writing, speaking listening and reading will be possibly succeeded. As a matter of fact, in order to overcome a learner’s insufficiency of vocabulary in a language, a vocabulary mind mapping technique can be used as an effective teaching or learning method to improve the learner’s vocabulary mastery (Samhudi, 2015).

With high effects of vocabulary mind mapping in teaching and learning words in a language, this classroom research is designed to examine the effectiveness of using such technique in business English classes of Thai vocational certificate I students since those students struggle or face with difficulties in learning their business English words as many other foreign language learners because they lack a number of lexicons both knowledge and understanding (Saenpakdeejit, 2014). It is also

because there is not much evidence to prove its effectiveness that can contribute the existing knowledge about the use of the vocabulary mind mapping technique in the context of vocational students in Thailand. Therefore, the researchers intend to conduct this classroom study through designed lessons plans and vocabulary mind mapping activities for business English classes of Thai vocational students in order to improve those students' achievement in learning business English vocabularies. It can also be a proof whether employing a right teaching technique, vocabulary mind mapping, in business English classes will become the effective teaching tool to enhance students' learning through recalling and memorizing.

Research Objective

To investigate the effectiveness of the vocabulary mind mapping technique in recalling and memorizing learned vocabularies in business English classes of Vocational Certificate I students at Hatyai Amnuaywit Technological College in the academic year 2021

Research Hypothesis

The vocabulary mind mapping technique can be effective to enhance students' abilities in recalling and memorizing their learned business vocabularies.

Literature Review

The utilization of vocabulary mind maps

Vocabulary mind mapping is defined by many scholars; for example, Syeda (2016) defined it as the most convenient method for generating information in our mind, and we can take such information out of our brain. Krasnic (2011) also defined it as a graphic tool that could be used to present a specific pattern

of topics, ideas, and words in a radial pattern from a central concept to outside surrounding ones. Indeed, it can be said that vocabulary mind mapping is a graphic thinking tool that can be used to increase more vocabularies related to meanings and usages. According to Othman (2018), main types of mind maps include dyadic mind maps, poly categoric mind maps, group mind maps, and computerized mind maps. Mind mapping, normally used as a tool for generating ideas, is a very effective teaching and learning technique that can enhance learning steps of learners. The learners will be able to remember the information they learn and then they can recall such information when they need to use it again (Brinkmann, 2003). In a normal class, a teacher may write a word on the center of a whiteboard, for example, the word "weather," and the teacher allows students to come up with other related words: hot, cold, sunny, rain, and snow. It will become a branch of mind mapping that can also be used as a revision technique for the beginning of the class or a conclusion at the end. Hence, students or learners can remember what they have learned because mind mapping is so visual and helps to make a connection of words (British Council, 2022).

Related research

Studies on vocabulary mind mapping have been conducted by many researchers. Pua, Li, Lui & Cheng (2022) investigated the use of mind mapping on teaching English vocabulary for 140 Hongkong elementary students through sketchbooks along one semester and tested their progress. The study discovered that mind mapping became an effective way to make students to link the new information to their existing information in the

learning process. Wangmo (2018) conducted a study on the use of mind mapping for writing skill of primary school Bhutanese students. By using a test of compositional writing, the results showed that the content of students' writing was statistically different, and the researcher concluded that vocabulary mind mapping had a major influence on the writing skill of students. In addition, Yunus & Chien (2016) conducted a study on the effectiveness of a mind mapping strategy in writing for Malaysian University English test. The mind mapping technique enabled students to have a good planning in their jobs, allowing them to come up with a writing topic and helping to maintain their writing. Also, Karimi & Heidari (2015) studied the effect of mind mapping on vocabulary learning on 40 Iranian high school students in two classes in Iran. The results revealed that

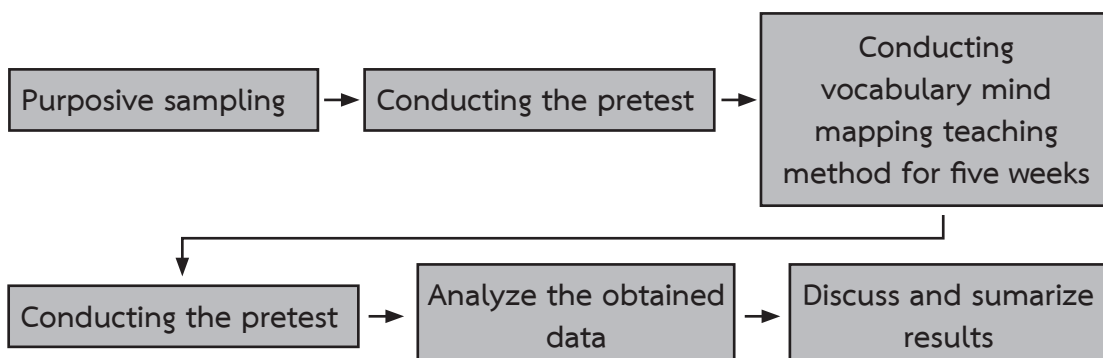
the experimental group that was taught by using a mind mapping technique had higher scores than the control group. Finally, Riswanto & Prandika (2012) conducted a study on the effectiveness of a mind mapping strategy in a writing course of the 66 first year Indonesian university students by using the pre-test and post-test. The findings of the study showed that the mean score of the experimental group was higher than the control group.

Research Methodology

This classroom experimental research provided the pre-test and post-test to obtain the data and compare the outcomes of using mind mapping teaching activities of business English classes for vocational certificate I students, and the procedures were shown as follows.

Picture 1

Research Design



Target group

Selected by the purposive sampling technique, the population consisted of 36 vocational certificate I students who enrolled

the class of English for Office Work for the second semester of the academic year 2021 at Hatyai Amnuaywit Technological College, Songkhla, Thailand.

Variables

The independent variables in this study was the learning process and activities of a vocabulary mind mapping teaching technique.

The dependent variable in this study was the learning outcomes of vocational certificate I students in recalling and memorizing business English vocabularies.

Data collection

Both the pre-test and post-test were used to collect the data before and after using the mind mapping teaching technique.

Data analysis

The data from the pre-test and post-test was analyzed by the Statistical Package for Social Sciences (SPSS) to find out the percentage (%), mean (\bar{X}), standard deviation (S.D), and paired sample t-test.

Research instruments

This classroom research employed two main tools as follows:

1. The pre-test and post-test were designed with 30 words which were divided into five topics: *Hotel, Office, Manager, Bank, and Market*. Each topic was then generated into six more related words, for instance, a receptionist, a bellboy, a patio, a lobby, heating, and housekeeping. The reliability of the test was examined by three English teachers with IOC (Index of item objective congruence) at 1.00.

2. Five lesson plans for teaching business English vocabularies with the mind mapping technique were developed in accordance with a student's textbook.

Research Findings

The results of vocational certificate I students' abilities in recalling and memorizing learned business vocabularies after learning through the mind mapping technique were shown below.

Table 1

Students taking part in the study

Descriptive Statistics					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	8	22.2	22.2	22.2
	Female	28	77.8	77.8	100.0
	Total	36	100.0	100.0	

From table 1, the number of students who take part in this study is at 36 in total.

There are eight male students (22.2%) and 28 female students (77.8%).

Table 2*Students' pre-test and post-test scores*

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Pre-test	36	9.00	22.00	14.11	3.59
Post-test	36	19.00	30.00	25.86	3.05
Valid N (listwise)	36				

The scores of students' pre-test and post-test show that the minimum score of the pre-test is at 9, while the maximum score is at 22 with the mean score at 14.11 and standard

deviation at 3.59. The minimum score of the post-test is at 19, while the maximum score is at 30 with the mean score at 25.86 and standard deviation at 3.05.

Table 3*Comparison of the mean between male and female students*

Descriptive Statistics			
Sex		Pre-test	Post-test
Male	Mean	14.00	24.12
	N	8	8
	Std. Deviation	2.82	3.18
Female	Mean	14.14	26.35
	N	28	28
	Std. Deviation	3.83	2.88

From table 3 above, the mean score of the male students from the pre-test is at 14 with the standard deviation at 2.82, and the post-test is at 24.12 with the standard deviation

at 3.18 The female students reach the mean score from the pre-test at 14.14 with the standard deviation at 3.83, and the post-test is at 26.35 with the standard deviation at 2.88.

Table 4
Paired Samples Test

Paired Samples Test								
Pair 1 Pre-test - Post-test	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std.Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
	-11.75	2.78	.46	-12.69	-10.80	-25.34	35	.000

In order to find out the different outcome between the pre-test and post-test, two statistical hypotheses are developed as follows.

$H_0 : \mu_{\text{Pre-Test}} - \mu_{\text{Post-Test}}$ (The outcomes of the pre-test *and post-test are not different.*)

$H_1 : \mu_{\text{Pre-Test}} - \mu_{\text{Post-Test}}$ (The outcomes of the pre-test and post-test *are different.*)

To test which hypothesis is accurate, the P value (Possibility) is set at .000, and the alpha (Significant) is set at .05. Therefore, the P value (Sig .000) must be less than .05. From the table, it shows that the t is at -25.34 and the Sig is at .000, which is less than .05. This means that the P value rejects the H_0 , but it accepts the H_1 . This can be concluded that the teaching of business vocabularies with the mind mapping technique can overall enhance students to recall and memorize their learned business vocabularies better with a statistically significant difference at .05.

Discussion

After employing the vocabulary mind mapping technique, the results of the study show that all students, both female and male students, are able to increase their business English vocabularies significantly higher than the pre-test. The study shows the effectiveness

of the mind mapping technique that can be used in different ways and in different stages; that is, it can be integrated with a variety of activities such a competition among teams during the lessons. What makes the outcomes obviously different between the pre-test and post-test is due to the characteristics of this strategy. The strategy makes learners learn vocabularies through the learning process that makes lessons enjoyable and colorful with fun and challenging activities. This will eventually lead students to improve their lexical archives, gaining more understanding and having more accuracy about using business vocabularies after they clearly understand their vocabularies in lessons. Accordingly, Benini (2022) reaffirmed that “mind maps are very useful tools to enhance your learning and creativity” (p.1).The findings of this study are in accordance with the outcomes of several studies on using vocabulary mind mapping; for example, Bahadori & Gorjian (2016), who studied the electronic mind map within Arabic vocabularies in the fifth-grade classes of Jordanian students, mentioned that the computerized mind map enhanced those students to have higher achievement in Arabic vocabularies. Also, Wang & Dostál (2018) confirmed that the Mind

Map could be employed to link the learned knowledge to different areas of new knowledge. It is a process to enhance learners to understand a subject better because the process enables them to improve their memorization, and it makes lessons more flexible and interesting. Hence, the vocabulary mind mapping technique is an effective teaching and learning technique that can be employed to increase a learner's language skills, especially in recalling and memorizing learned vocabularies. The main reason is that the use of the vocabulary mind mapping permits learners to connect information or ideas around a main theme of a topic which they have learned. The statistical quantitative analysis of this study insists that the mind mapping teaching technique can truly enhance vocational certificate students' vocabulary proficiency since they have better performance in learning business vocabularies from the post-test. Indeed, from the mean score of the pre-test at 14.11 with the standard deviation at 3.59 to the mean score of the post-test at 25.86 with the standard deviation at 3.05 and the P value at .000 of the paired sample t-test, these empirical data indicate that using the vocabulary mind mapping teaching technique in business English classes becomes the effective teaching method that has made a remarkable fact in promoting language teaching for learners who learn business English as the foreign

language in Thailand because this study discloses that the vocational certificate students have better learning achievement.

Recommendations

1. Implications

1.1 To make a vocabulary mind mapping teaching technique more effective, a teacher needs to ensure that all students in a class clearly understand words in a lesson.

1.2 A competition between two or more groups of students should be established regularly while employing vocabulary mind mapping teaching activities in order to provide more enjoyable classroom atmosphere.

2. Areas of Future Research

2.1 In order to support and make a comparison with the results of this study, a further study with more number of students or different classes such as primary school students and high school students should be conducted through the implementation of vocabulary mind mapping teaching activities in English classes.

2.2 The integration of vocabulary mind mapping teaching activities with other English language skills such as writing and communication should be carried out in order to further explore the impact of using vocabulary mind mapping towards English learners.

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