

**The Effect of Concordancing-Based Teaching on Vocabulary Learning and Retention
on Thai EFL Learners**

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งานวิจัยนี้เป็นการศึกษาผลกระทบจากการสอนแบบคونคอร์เดนซ์และวิธีการสอนแบบดั้งเดิมเพื่อเพิ่มศักยภาพในการสอนและการจัดจำคำศัพท์ กลุ่มเป้าหมายคือ นักศึกษาจำนวน 80 คนจากมหาวิทยาลัยแห่งหนึ่งในภาคตะวันออกเฉียงเหนือของประเทศไทย โดยได้ทำการแบ่งกลุ่มเป็นกลุ่มทดลองและกลุ่มควบคุมในปริมาณที่เท่ากัน นักศึกษาในกลุ่มทดลอง คือกลุ่มที่จะทำการเรียนการสอนโดยการใช้กิจกรรมการสอนแบบคุณค่าวร์เดนซ์ และกลุ่มควบคุมจะทำการเรียนการสอนด้วยวิธีดั้งเดิมผ่านแบบฝึกหัดเพื่อเรียนรู้คำศัพท์ ผลการทดลองพบว่า กลุ่มทดลองซึ่งทำการเรียนการสอนโดยการใช้กิจกรรมการสอนแบบคุณค่าวร์เดนซ์มีผลการเรียนรู้คำศัพท์มากกว่ากลุ่มควบคุมที่ทำการเรียนการสอนด้วยวิธีดั้งเดิม นอกจากนี้กลุ่มทดลองยังได้คะแนนในส่วนความสามารถในการจัดจำคำศัพท์สูงกว่ากลุ่มควบคุมอย่างมาก ผลการทดลองแสดงให้เห็นว่าบันทึกภาษาสามารถเรียนจำคำศัพท์ผ่านวิธีการเรียนการสอนโดยการใช้กิจกรรมการสอนแบบคุณค่าวร์เดนซ์ได้ดีและวิธีการเรียนรู้ข้อมูลขับเคลื่อนควรได้รับการส่งเสริมให้เป็นเทคนิคในการเรียนการสอนคำศัพท์สำหรับนักศึกษาไทย มากไปกว่านั้นผลการทดลองยังพิสูจน์ให้เห็นอีกว่าวิธีการเรียนการสอนดังกล่าวสามารถพัฒนาความสามารถในการจัดจำคำศัพท์ของผู้เรียนได้อีกด้วย

คำสำคัญ: การเรียนรู้ด้วยข้อมูลขับเคลื่อน, การเรียนการสอนคำศัพท์, การเรียนการสอนแบบคุณค่าวร์เดนซ์

Abstract

This study investigated the effect of enriching vocabulary instruction and vocabulary retention with concordance based teaching activities versus the traditional vocabulary teaching techniques. Eighty EFL subjects from a university in the northeastern Thailand participated in the study formed two groups. The experimental group worked on concordance materials, whereas the traditional vocabulary exercises were given to the control group. The results showed that the experimental group with the concordance based teaching had more positive effects on subjects' vocabulary learning than the traditional vocabulary teaching technique.

Moreover, the experimental group outperformed the control group in the vocabulary retention test. The results suggested that the subjects were able to work on concordance vocabulary teaching and data-driven learning strategies could be promoted as a useful vocabulary teaching technique for Thai subjects. They also offered some support to the idea that learning vocabulary through concordance lines could help to improve subjects' vocabulary retention.

KeyWords: Data Driven Learning, Vocabulary learning and teaching, Concordancing- based teaching

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Background

1. The problem of English language learning and teaching in Thailand

English is a foreign language in Thailand, however, it has influenced on many aspects of Thai education for hundreds of years. When learning and teaching English as a foreign language, various aspects need to be taken into consideration, and we cannot avoid talking about vocabulary. Vocabulary is one of the most crucial required skills for English learning because without sufficient vocabulary subjects cannot understand others or express their own ideas (Schmitt, 2010). Many researchers such as Read (2000), Nation (2001), Gu(2003), Nation (2011) and others have emphasized that having an adequate vocabulary is a requirement for successful second and foreign language use because without an extensive vocabulary, learners cannot use the structures and the functions that they have learned in comprehensible communication. While vocabulary is the heart of language learning, but many problems still exist in vocabulary learning and teaching English in Thailand. Many researchers have pointed out that problems with vocabulary learning and teaching are the main cause of the failure (Suwannarak&Phothongsunan , 2008; Noom-ura, 2013) of many Thais to master vocabulary.

The problems of vocabulary learning and teaching English in Thailand become more serious, this can be seen in Thailand's average score of 466 in the 2016 Test of English as a Foreign Language (TOEFL) when its percentile rank was 46th. Thailand ranked the 6th out of 10 countries in Association of Southeast Asian Nations (ASEAN). Thais' average score was higher than only Cambodia and Laos, but far behind other countries such as Singapore, the Philippines, Malaysia, Indonesia, and Myanmar (Test and Score Data Summary for TOEFL, 2016).

Thailand's English-proficiency test results were released by the O-NET (Ordinary National Educational Test) that showed that the English average scores of Thai high school subjects in 2014 and 2015 were 23.44% and 24.98% respectively (O-NET annual

report, 2015). Additionally, the English average score was the lowest score of all other school subjects. The low O-NET scores showed the Education Ministry' actions to improve English language teaching in Thailand, despite the higher budget, are not yet sufficient.

Although, recent research indicates that teaching vocabulary is one of the most discussed parts of EFL classroom, teachers are not confident about the best practice in teaching and they do not know where to begin emphasizing on word learning (Berne & Blachowicz, 2008). Therefore, many researchers have been trying to apply new teaching approaches to help Thai teachers to teach English vocabulary. Various new techniques have been implemented in vocabulary teaching. Using attractive and appropriate methods can enable learners to enrich information about the target word and to integrate those words into long-term memory (Folse, 2004).

2. Introduction to Computer technology and the use of Concordancing in the classroom

The emergence of computer technology in the language classroom has led to the creation of innovative teaching methods over the past few decades. Using a computer and corpus linguistics research for teaching and generating exercises became a powerful tool for English language classes. Moreover, second/foreign language classroom have benefited from recent digital corpora research (Boulton, 2010). Sinclair (2004) stated that corpus-based language teaching is a new revolution in language teaching, and it encourages learners to discover patterns of authentic language. Corpora provide both direct and indirect evidence of language use for use in the language classroom (RÖmer, 2008). One of the most powerful advantages of corpus linguistics teaching is that it creates the opportunity to study how language features are used though looking at data (Conrad, 2005).

Although corpus Linguistics was introduced in Thailand almost 20 years, there are only a few corpora have been built in Thailand including the corpus of modern text written in Thai language (HSE)

- the Thai Learner English Corpus (TLEC). These corpora were built for particular reasons, for example, to analyze genre moves in academic writing; to investigate the use of concordance and corpora in ELT; to collect the written and spoken language of Thai English learners; and to study the errors and performance of learners with prepositions and collocations. One technique that stems from corpus linguistics research which has the potential impact on language classroom, is concordancing. "Concordancing is examples of words or phrases uniquely presented in the way that the words or phrases under investigation are aligned in the middle of the page with their left and right contexts" (Sripicharn, 2003). The concordance approach is sometimes referred to Data-Driven Learning (DDL) which is the learning materials and activities are developed by the concordance program in order to expose the learners to authentic language presented in the form of concordance lines (Sripicharn, 2003). DDL, a language teaching technique developed from the use of corpora, was coined by Tim Johns has been characterized as "autonomic learning", "authentic learning", "self-discovery", and "inductive learning". The aim of using concordance based teaching is to give learners authentic and hands-on experiences with real actual language use data through concordance lines. Under this method, learners are asked to generalize patterns and use target words and they are encouraged to make their own interpretations (Johns, 1991). New discoveries in using a concordance for language classroom have started to challenge the traditional method of teaching, especially in ESL/EFL classrooms. Many researchers have pointed out that there is strong agreement on the benefits of using concordancing and the use of corpora in the ESL/EFL classroom. However, few studies have been based in Thailand indicating that not many teachers know of this method here. In order to help to address the gap, this study set out to investigate the effect of integrating the concordancing based teaching with vocabulary learning and the vocabulary retention of the Thai subjects.

Method

1. Participants

The participants were 80 EFL subjects who enrolled in a four-month English for Tourism 1 course in a university on Northeastern Thailand taught by the researcher. They were divided equally (40 students for each group) into two groups according to the university registration system. The first group of the participants was assigned to be a control group and other was experimental group. They were in their second year of a non-English major with their average age being 19. They have been learning English for more than 10 years. Most of them have exposed to English by watching TV. program, watching English soundtrack movies, listening to music, and talking to international friends. And from the placement test, it was clear that their English proficiency was at intermediate level.

2. Instruments

There were 6 instruments used in this study: placement test, target words, self-learning exercises, concordance exercises, post-test, and retention test.

1) Placement test

The placement test was adapted from the Macmillan Straightforward Placement Test available online at <http://www.macmillanstraightforward.com/resources/tests/>. There were 50 questions with one point awarded for each correct answer. The test consisted of grammar questions and vocabulary section. The language proficiency level of subjects was determined by the subjects' score. The placement test was used to evaluate the subjects' English proficiency and provide the researcher subjects' English academic background and to ensure the two groups were equal in ability.

2) Target words

The target words were collected from the index section of an English for Tourism book which was used as a material in the course. The subjects were given a list of 200 words and they were asked to rate their knowledge of the words. A Likert style vocabulary knowledge scale was adapted from Stahl

and Bravo (2010). Subjects could choose the score between one to five points for each word. They received one point if they do not remember having seen the word before; two-points if they have seen the word, but don't know what it means; three points if they have seen the word and think they can provide a synonym or definition; four points if they know the word and can give a correct synonym or definition; five points if they can use the word correctly in a sentence (Stahl & Bravo, 2010). From the results, the researcher came up with 100 words that earned the lowest score. Each of these words was then searched for in the British National Corpus to find its frequency. The top 60 most frequent words were used as target words, and they were used as a material for both groups of subjects. The target words were divided into 10 exercises, one for each week, which allowed the subjects to study only 6 words a week.

3) Exercises for control group

Besides the target words which were given to the subject in both groups, the control group also received the traditional vocabulary exercise such as gap-filling, dictations, matching, and direct translation. These traditional exercises were used only in the control group after the class had finished. The students were given the exercises as their self-learning. In each week, the subjects got 1 hour to study 6 target words and work on the non-concordance exercises to deepen their knowledge of them. The researcher acted as a facilitator to help subjects and check their answers when they handed in. The purpose of the test was to draw subjects' attention to the same language features as the concordance exercises used in the experimental group.

4) Exercises for experimental group

The six printouts of concordance based teaching unit in tourism contexts were randomly selected from the British National Corpus (BNC) and were given to the 40 subjects from the experimental group in each week. Basically the six target words were provided to the subjects in form of concordance lines with the attached exercises. The purpose of this

material was to encourage the subjects to notice and deduce the meaning and some lexico-grammatical language features such as collocation and any other relevant structure from the given concordance lines. The subjects were given the printouts of concordance lines and the exercises at the end of the class, and they were asked to spend the same amount of time studying on the target words and the exercises as another group of subjects. Paper-based exercises were used because of the limitation of facilities, so the researcher decided to print out exercises for them. The exercises guided the subjects to look carefully at the concordance lines. To make the input consistent, the researcher also acted as a facilitator to help the subjects when they had questions or any problems. Their exercises were checked at the end of the session.

5) Post-test

The post-test included 60 multiple choice items that both groups of subjects had worked on during the 4 months. The test was employed to address the subjects' level performance after they had completed the class and it was used at the end of the experiment. The post-test was systematically validated by three experts. The statistic used to compare the performance of the two groups was an independent-sample t-test. Subjects did not have time to prepare themselves for the post-test. They were given the post-test without being prior-informed to prevent them from memorizing before the test. Both groups of subjects took the post-test at the same time, and they got 90 minutes to complete the test.

6) Retention test

Three weeks later, the subjects in both groups were required to take an unannounced multiple-choice retention test. Thirty items were randomly selected from the post-test to evaluate the subjects' vocabulary retention. The purpose of the test was to check if the subjects could remember the target words when time passed. Again, an independent sample t-test was used to compare the two groups on their vocabulary retention.

<p>on July 1, provided for a nominal increase of 2.5 per cent in total save money on salaries, perhaps from long-term absence, or by reducing a country is usually associated with a greater proportionate increase in even more sharply in the direction of the non-poor. Housing (central and local government plus the public corporations) in total The main items of expenditure are teacher salaries, other staff costs, Bill must not be public expenditure. If some incidental Given the rate of inflation of food prices, all forms of relief It was only in the late 1980s that public there is a requirement to show VAT rate were also high, because of the high ratio of consumption If a country does not have control over its tax and was contemplating an increase the percentage of the GDP public accepted the Plowden Committee's proposals and began to plan public reduced. Despite the government's determination to modify regional</p>	<p>expenditure to DM435,650 million. Of this DM91,900 million was for the eastern in one area in order to spend it elsewhere. Other heads had no choice on services of the kind provided by local government. expenditure on council tenants was cut but owner occupiers gained substantially, has increased in all of the industrialized economies this century. expenditure on school buildings and expenditure on equipment. expenditure is involved, the member must persuade a minister to move a financial expenditure would have become considerably more expensive. expenditure as a proportion of the national product fell below that which the expenditure on publicity, fund raising and administration. Under the Companies expenditure to GNP within the UK. In 1975 a "financial mechanism" was then it cannot be said to have control over anything, since everything expenditure would take -- from 40 per cent in 1990/1 to 43 per cent in 1992/3 expenditure on the framework of a five-year rolling programme. Under this expenditure in the mid-1980s, total regional aid -- both selective assistance more</p>
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Figure 1 Example Concordance lines

<p>1. What parts of speech of expenditure did you notice?</p> <p><input type="checkbox"/> Noun <input type="checkbox"/> Verb <input type="checkbox"/> Pronoun <input type="checkbox"/> Adjective <input type="checkbox"/> Adverb <input type="checkbox"/> Preposition <input type="checkbox"/> Conjunction <input type="checkbox"/> Interjection</p> <p>2. What do you think expenditure means in these concordances?</p> <p>..... </p> <p>3. What are the collocations for expenditure?</p> <p>..... </p> <p>4. What do you think they mean?</p> <p>..... </p>

Figure 2 Exercises for experimental group

Part A: Instructions

There is one missing word in each sentence.

The meaning of the missing word appears in brackets under each sentence. Fill in the missing word using the first letter/s provided for you. Do not repeat the words given in the brackets.

Example: I have lots of f.....

(Hint/Meaning: "companion")

Answer: friends

1. She has an ex..... of 10,000 baht on new furniture.
(Hint/Meaning: "payout, spending")
2. They admired the beautiful..... of our city.
(Hint/Meaning: "view, scenery")
3. He stayed o.....at my house.
(Hint/Meaning: "nightlong, during the night")
4. He got a i..... car.
(Hint/Meaning: "rich, deluxe")
5. I want to book two room s..... hotel.
(Hint/Meaning: "luxurious apartment, upscale accommodation")
6. H..... employee must have effective guest service skills.
(Hint/Meaning: "friendliness")
7. A passenger asks a s..... to bring her some coffee during a long flight.
(Hint/Meaning: "crew")

Figure 3 Vocabulary exercises for the control group

Procedure

The experiment took place during the regular class periods. The participants were first divided equally into 2 groups: experimental and control groups. Before the class had started, the placement test was applied to all subjects in order to confirm their English proficiency. The target words were selected as described above.

The control group was given the target words with the traditional exercises meanwhile the experimental group was provided the target words and the printed concordance materials (concordance lines with the exercises). To train the subjects how to work with concordance lines, a tutorial session was set to give some explanation and show them some sample patterns which could have been discovered

by investigating the printed material.

After the experiment had finished after the final week, both groups of subjects were asked to take the immediate post-test with no time given for preparation. Three weeks later which was the last class of the semester, the retention test was assigned to all of the subjects.

Results

In this study, the researcher investigated the effect of enriching vocabulary teaching with printed concordance line from the BNC and the traditional vocabulary teaching style on vocabulary learning and retention of Thai EFL subjects. The results are shown in Table 1.

Table 1 The results of the study

	Placement test score (out of 50)	S.D.	Post-test score (N=60)	S.D.	Retention test score (out of 30)	S.D.
Control Group	29.37 (58.74%)	3.67	24 (40.00%)	5.17	13 (43.33%)	6.24
Experimental Group	27.43 (54.86%)	3.19	45 (75.00%)	7.04	22 (73.33%)	4.67
*p	0.00		0.03		0.00	

*p< 0.05

As shown in Table 1, the Experimental group (the concordance group) clearly scored higher than the control group (the non-concordance group). The t-test result indicates that the experimental group of learners who participated in concordance teaching technique performed much better than the control group. The post-test Mean score of the experimental group was 45 (75%) and the control group 24 (40.00%). The results therefore suggest that classroom concordancing exercises have made a positive effect on the subjects' vocabulary learning. For the vocabulary retention test, the experimental group scored 22 (73.33%) and the control group scored 13 (43.33%) with significant difference p. value at 0.00. The result can be interpreted that the concordance lines used in the classroom affected the subjects' vocabulary retention than the traditional vocabulary teaching methods.

Findings support Schmitt (2000) who promoted the advantages of using a concordance in language teaching. The findings are also consistent with Cobb (1997) who claimed that Data Driven Learning raises the learners' enthusiasm and memory. Binkai(2012) argued that the approach of corpus driven is useful in vocabulary teaching due to the fact that it can contribute the subjects to become autonomous. All the findings in this study seem to ensure that the use concordancing has numerous advantages for the subjects. For example, it enriches vocabulary

teaching and learning, besides it contributes learners' vocabulary retention. As mentioned above, concordancing based teaching helps learners interact with the authentic language which is normally used by native speakers which can convince the learners than the example in grammar books (Mayer, 2004; Cobb, 1997).

Discussion

This study has considered the effect of concordancing based teaching with Thai EFL subjects. The subjects' placement scores, show that the two groups were at the same level and their English proficiency was not significantly different. However, the post-test scores presented clear evidence that concordancing based teaching supported the subjects' vocabulary learning. Although initially the English proficiency of the experimental group was slightly lower than the control group (27.43% and 29.37%), they performed much better in the post-test. Although subjects were new to the concordance based teaching, they showed that they could learn from this approach effectively. The result yielded the same result as Sripicharn(2003) which showed the subjects' learning through concordance- based exercises was quite positive. He reported that his subjects were able to make useful generalizations from the concordance data. The retention test score seems to correlate with the post-test score. The result demonstrated that enriching vocabulary instruction with concordance

based teaching improved the subjects' retention of vocabulary. The results also suggest that corpora and corpus materials specifically have an effect on vocabulary issues such as grammar, idioms and other phrases, choosing what words to teach, and knowing what a word means. According to Gilquin and Granger (2010), DDL is one technique to engage the learner to develop cognitive skills and generally brings learners into contact with authentic language pattern as a native speaker. Therefore, applying concordance or DDL to the classroom can help both teachers and subjects explore some issue that might not otherwise be discovered (Nation, 2001). Moreover, implementing concordancing exercises in vocabulary teaching provides great opportunities for teachers and students to learn more about vocabulary. Teachers who are aware of some aspects of vocabulary issues can use DDL to aid their subjects in comprehending the full meaning of words and practicing them in the classroom (Flowerdew, 2009). Additionally, the findings of the present study seemed to offer some support to the claim that concordancing based teaching improves the learners' concentration and it helps to maintain their knowledge (Davies, 2008; Gilquin & Granger, 2010).

However, the standard deviation of the post-test and the retention test score were quite high. This suggests that some subjects improved a lot after participating in the activities but some did not. It could be interpreted that some students were highly motivated by the approach, but it implied that individual responsibility needed to be taken to consideration of language teacher.

Despite such encouraging results, some limitations of the research should be noted. The subjects were not randomly selected because they had been grouped by the university registration system prior to the study. Moreover, the study would be more interesting if all the subjects could have chances to apply computer-based concordance learning. Subjects could control the data themselves, and any language points beyond teacher' expectation could be raised

from the subjects' observation.

Conclusion

This study explored the effect of DDL on the vocabulary learning and retention of Thai EFL learners. The results suggest that supporting the vocabulary learning with concordance based teaching had a positive impact on the learners and also helps them remain the meaning of those words more efficiently. Therefore, the concordance based teaching may be a useful aid helping the teacher with vocabulary teaching and assisting subjects to study language naturally. Concordance based teaching is quite a new method in Thailand, due to the nature of Thai subjects and Thai educational system which guides the subjects to be passive learners only. Like any new approach, more studies should be undertaken in order to confirm these findings; strengthen the vocabulary teaching techniques; to exchange ideas on designing a concordancing exercise suited to Thai subjects; and to give more opportunities to develop learners' autonomy potential in the classroom, with less reliance on the teacher.

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