การสร้างโปรแกรมพัฒนาการเรียนรู้คำศัพท์ธุรกิจโดยใช้คลังข้อมูลคำศัพท์
สำหรับนักศึกษาวิชาเอกภาษาอังกฤษธุรกิจ มหาวิทยาลัยขอนแก่น
A Corpus-Based Business Vocabulary Learning   Development
Program for the Business English Majors, Khon Kaen University

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บทคัดย่อ

      งานวิจัยครั้งนี้ มีวัตถุประสงค์เพื่อ ที่จะสร้างโปรแกรมพัฒนาความรู้คำศัพท์ภาษาอังกฤษธุรกิจ และศึกษาประสิทธิภาพของโปรแกรม กลุ่มตัวอย่างที่ใช้ในงานวิจัยครั้งนี้เป็นนักศึกษาชั้นปีที่สาม วิชาเอกภาษาอังกฤษธุรกิจ มหาวิทยาลัยขอนแก่น จำนวน 46 คน ซึ่งได้มาจากกลุ่มการสุ่มแบบเจาะจง เครื่องมือที่ใช้ในการวิจัยประกอบด้วย 1) บทเรียนโปรแกรมพัฒนาความรู้คำศัพท์ภาษาอังกฤษธุรกิจ จำนวน 10 ชุด 2) แบบทดสอบวัดผลคำศัพท์ก่อนเรียนและหลังเรียน และ 3) แบบสอบถาม การดำเนินการวิจัย กลุ่มตัวอย่างจะทำการทดสอบคำศัพท์ก่อนเรียน แล้วจึงทดลองเรียนจากโปรแกรมเป็นเวลา 10 ครั้ง จากนั้นจึงทำการทดสอบคำศัพท์หลังเรียน แล้วนำผลที่ได้ มาหาค่าทางสถิติใช้ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐานและการทดสอบค่า t-test ผลการวิจัยของการหาประสิทธิภาพของโปรแกรมคำศัพท์พบว่า มีค่าประสิทธิภาพ 80/83 มีประสิทธิผล 0.65 ซึ่งสูงกว่าเกณฑ์มาตรฐาน คะแนนที่ได้จากการทดสอบหลังการเรียนด้วยโปรแกรมพัฒนาคำศัพท์สูงกว่าคะแนนก่อนการเรียนซึ่งแตกต่างกันอย่างมีนัยสำคัญทางสถิติที่ระดับ .001 นอกจากนี้ผลการวิจัยยังพบว่าผู้เรียนส่วนใหญ่ สามารถจำความหมายคำศัพท์ได้ดีขึ้น เข้าใจความหมายคำศัพท์และนำคำศัพท์ไปใช้ได้ในธุรกิจ

ABSTRAC

      The main aims of this study were to design the Business Vocabulary Learning Development Program or BVLDP and to determine its effectiveness. The research instruments were BVLDP, questionnaires, interviews, and pre-and post- vocabulary translation tests. In the process of data collection, the 46 participants were asked to take a pre- vocabulary translation test, then they studied the BVLDP including with 10 packages spending on ten weeks. After that they took a post translation vocabulary test. The statistic used in

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the present study comprised t test, standard deviation, mean and content analysis for the interview data. The results were that the effectiveness and effective index figures of the BVLDP were found to be 80/83 and 0.6 5, respectively. These figures were higher than the criteria of 80 and 0.5. These results revealed that the developed BVLDP was efficient in improving vocabulary knowledge for the Business English major students. There were also statistical differences between the pretest and posttest scores at .001 levels. The results also show that the participants had a progress in vocabulary knowledge. They can recognize the target words well, understand the meaning of words and use the words correctly in business contexts.

Introduction

Knowing vocabulary is considered useful for language learners (Nation, 2001). Meara (1996) also stated that learners who know more vocabulary are more proficient in English language than those who know less vocabulary. Of all the four skills, vocabulary is one of the most critical aspects of communication (Harris, 1970); especially, in reading, students fail to understand the main ideas of the passages when encountered with difficult words.

Kufaishi (1988) found that EFL and ESP learners who are poor in vocabulary, they can neither communicate their ideas as clearly as nor grasp the ideas transmitted to them. Their listening, writing and reading are hampered by their limited range of vocabulary. This idea is well supported by Jordan (1997), who also believed that vocabulary is the main cause of difficulties for non-English speaking students.

Wangkangwan (2007) discovered that the causes of the difficulty of learning English

language for Thai students are due to their insufficient vocabulary knowledge. Research findings conducted by Aegpongpaow (2008) reported that vocabulary poses as one of the major difficulties in reading for Thai students. Similarly, Sittirak and Ponjamreon (2009) revealed that among 400 students from four universities, namely, Chiang Mai University, Khon Kaen University, Srinakharinwirot University and Prince of Songkla University at Trang Campus, there is only a small number of students who can choose the correct words to convey the meaning of words and know how to choose the proper words to fill in the gap. Thus, more than fifty percent of the students used the wrong words in filling in the gaps provided.

Obviously, it was reasonable to conclude that vocabulary was one of the major problems in teaching and learning English. This called for a focus on the vocabulary development for the KKU's Business English majors who have made an implicit request for supplementary

materials so that they can study on their own both inside and outside classroom.Therefore, one way to help Thai university students to improve their vocabulary knowledge is from the computerized program constructed as Business Vocabulary Learning Program. To date, no such programs have been particularly designed to prepare the Business English learners to meet the demands of business communities in the Thai context.

Objectives of the study

1. To design a Business Vocabulary Learning Development Program (BVLDP).

2. To determine the effectiveness of the BVLP based on the 80/80 standard.

The research questions are the followings:

1. Is the BVLDP efficient based on 80/80 standard?

2. What is the learning outcome of the BVLDP?

3. To what extent do the users think the BVLDP can help them improve their vocabulary knowledge?

Sample group

Eighty-eight third year Business English major students at Khon Kaen University, Khon Kaen Province, Thailand, participated in the present study. The participants were divided into two groups. The first sample group comprised 42 students who were enrolled in 422433, English for Mass Media course, during the first semester of the academic year 2007. Selected by the purposive sampling method, they served as a pilot group, who were then assigned into three smaller groups, 14 each, of potential, average, and low groups based on their English major course average grades for the three trials of one-to-one testing (3 students per group), small group testing (9 students per group), and field group testing (30 students per group).

The other 46 students, the second group, selected by the sampling method, served as the experimental group who enrolled in the 42233 English for Mass Media in their fourth year in their first semester. This group learned the 100 target words using the constructed BVLDP for 10 weeks.

Research instruments

The research instruments used in this research study comprised the pre- and post-vocabulary translation tests, BVLDP, questionnaires, and semi-structured interview.

The pre- and post-vocabulary translation tests

The purpose of the pre-translation test is to measure whether the students have made progress in vocabulary learning or not after learning the target words through the Business Vocabulary Learning Development Program. The reliability of the test was checked, using the Method of Coefficient Alpha of Cronbach.

The reliability coefficient value calculated of the tests was 0.966 and the reliability coefficient value calculated of the post-test was 0.923. This means that the tests all have high reliability. The data was generated to answer research question 2.

The Questionnaires

There were two questionnaires used in this study. The first questionnaire was designed to find the effectiveness of the Business Vocabulary Learning Development Program, asking what students think about the Business Vocabulary Learning Development Program.

The second questionnaire was designed to find the opinions of the Business English majors on their vocabulary improvement after learning the target words through the Business Vocabulary Learning Development Program. The data was generated to answer research question 2 and 3.

The reliability of both the first questionnaire and second questionnaire was checked, using the method of Coefficient Alpha of Cronbach. The reliability coefficient values calculated were 0.96 and 0.92 respectively.

The semi-structured interview

The purpose of the interview was to find out the effectiveness of the Business Vocabulary Learning Development Program by questioning the students' opinions in depth on their vocabulary improvement after learning with the BVLDP. They were asked to express their opinions on how the BVLDP helped them improve their vocabulary knowledge. The data was generated to answer research question 3.

Design of BVLDP

To select a word list to be learned, through the Wordsmiths, a corpus of 1,445 most frequently appeared words was chosen from a total of 238,561 words from 420 business news stories published in a month period in one of the two most read English newspapers in Thailand and through the British National Corpus, 2,170 words. From a list of 890 overlapped words from the two corpuses, 380 to be learned were chosen by 10 experienced Business English teachers and 450 to be learned were selected by 46 participants mentioned earlier. A comparison of the two lists yielded 100 overlapped words to be mastered.

The format of BVLDP

The Business Vocabulary Learning Development Program consisted of 10 packages. These 10 packages consisted of 100 word study. Each package consisted of 10 words that were presented in 7 activities.

Each package of the Business Vocabulary Learning Development Program was intended for one week study inside the classroom, so there were, in all, 100 words studied for ten weeks per semester.

The following provides an overview of the sequence of the learning activities in the BVLDP.

First, the word study presented the words to be learned in each section. Ten words were presented in this part. In each section, the students learn a set of 10 new words, which is an appropriate number of words per lesson, to enhance their memorization of the meaning of words (Nation, 1982, 2000, Wallace, 1984, Wodingsky & Nation, 1988). Then, the student self-test, designed to check which of the words students know or do not know before doing each activity, was presented. The next section was namely "Noticing words activity" bringing the attention of the students to the unknown word, which is the first step that promotes learning. It means that learners see the word appearing in the passage as a useful item for them to become familiar with. Scanning of the words study by click to highlight the word study they found in each package. The user can view a set of words in order to recognize the words they will meet in each package. Then, the student went on studying the next activity titled "Guessing the meaning of word from contexts". This activity was designed to help learners notice words which allow them to guess the meaning of a word from context (Nation, 2001). The use of a dictionary is shown to be beneficial for vocabulary learning by many studies (Aust et al., 1993; Hulstijn, 2000; Krashen, 1989; Laufer & Hill, 2000; Mondria & Wit-de Boer,

1991). Next are the exercises where the words will be practiced and rehearsed in context in different types of exercises. By doing exercises, the learner becomes familiar with the meanings and usage of the words. Exercises include matching, gap-filling, and word association. After students finished learning the words from previous activities, they did a set of exercises to practice the vocabulary they have learned. After finishing each exercise of the BVLDP, they were regularly given feedback or grades to enhance their understanding, memorization and use of the words. For example, after they clicked to add up their scores in each section, if they get high scores, their feedback will be "excellent". If their scores are low, the feedback will be "try again". After that, the vocabulary discussion board was presented in the last activity, offering users the chance to share opinions and ideas among friends while learning the vocabulary activity.

Results of the study

Results of research question 1: What is the learning outcome of the BVLDP?

In order to evaluate the efficiency of the BVLDP, the examination was done in three steps of trials. The purpose of each trial was to improve the BVLDP. The subjects for the trials studied with the BVLDP and took the tests. The subjects' achievement scores from both exercises and tests were calculated to determine the efficiency of the BVLDP. There

were three trials to evaluate the effectiveness of the program: one-to-one testing, small group testing, and field study testing.

The results of this implementation were then analyzed to determine both the efficiency of the process and product and effectiveness index; the results are presented in Table 1 below.

Table1:   The Results of the Three Trials

Trials	E1 (Efficiency of Process)	E2 (Efficiency of Product)	Effectiveness index (0.5)
Individual Testing	72.00	80.00	0.66
Small group Testing	70.25	73.95	0.61
Field study Testing	80.00	83.25	0.65

It can be concluded that the participants considered that the BVLDP should be adjusted in some points of the first two trials. The participants reported that the instructions of the BVLDP, the language used, the number of exercise types, and time allocation should be adjusted. The instructions of activities in the program were improved to make it easy and clear for learners. Misspellings, grammatical mistakes, were corrected, and more information was added to make the program complete. Finally the BVLDP is efficient based on 80/80 standard in the last trial.

After that the pre- and post- vocabulary translation tests was administered.   Before learning with the BVLDP, the participants took a pre-test. After they finished their learning, a post- test, which was identical to the pre- test, was given; the results are shown in Table 2.

Table2: The Statistical Difference of Pre-test and Post-test

TESTS	$\overline{X}$	S.D.	t-test	P
Pre-test	51.80	10.36	10.46	***0.000
Post-test	72.54	11.23		

*** $P < 0.001$

According to Table 2, it is clear that there are significant differences between pre-test and post-test scores; the differences were significant at the level of 0.01. This indicates that the business English majors who studied the BVLDP had better business vocabulary knowledge after studying the BVLDP.

These before and after findings reveal that there were significant differences at the 0.01 level in the participants' learning with the BVLDP. It can be concluded that the BVLDP could help the learners learn the vocabulary in the business news section comprehensively and effectively.

Results of research question 3: To what extent do the users think the BVLDP could help them improve their vocabulary knowledge?

The results from questionnaire show that the students improved their vocabulary knowledge; they can recognize the words, understand the meaning of words and correctly use the words in business contexts. The results from the semi-structured interview also revealed that three types of vocabulary exercises namely: matching, gap filling, and words associating, could help them improve their vocabulary knowledge. The gap filling exercise can help them understand the meaning of target words. Similarly, the students revealed that it can help them to correctly use the target words in business contexts. Matching exercise is easy to recognize, and understand the meaning of words both in Thai and English. The findings were also found that   seven to ten repetitions of words could help them remember the target words better. 10 words study of each lesson is appropriate for the students to learn. It   helps them remember the words more quickly and easily when they see the repeated words at least 7-10 times. The corpus-based business news enables to use the correct words mostly found in business contexts.   Furthermore, they also reported that the BVLP could help them improve their reading skills and vocabulary knowledge.   The BVLP can promote their autonomous learning as well.

Discussion

The data obtained from the semi-structure interview revealed that the ten words study each package per week is in appropriate number of words to remember and understand words well.   These findings were in an agreement with many scholars mentioned about this issue.   According to Wallace (1984), he indicated that the quantity of new words students should learn in a lesson is about 5-7 words but this depends on a number of factors from class to class and learner to learner. McCarthy (1996) pointed out that students learn is about 5-15 new words each week. Similarly, Beck & McKeown (1991) found from their research on vocabulary growth that students learned words about 10-20 words a week. Approximately 8-10 words are learned per time (Doff, 1991; Nation, 1982).

The results of the semi structure interview also revealed that the BVLDP helped learners remember the 10 words study each package and their meanings more quickly and easily when they see the repeated words at least 5-10 times. This might result from the theories and research studies that students can remember the words well and reinforce their understanding and retention if they have a chance to practice and review it at least 7-10 times or 5-16 exposures (Saragi, Nation and Meister; 1978, Nation; 1990, Wodingsky & Nation; 1988, Tinkham; 1993).

The results also indicated that the participants could learn word form, meaning and use of the target words through the BVLDP. They said that all of these components such as form, meaning and use of word are important and necessary as a part of learning a word for improving their vocabulary. This is identical to Nation, 2001 stating that what is involved in knowing a word includes form, meaning and use which should be applied to vocabulary learning.

The data obtained indicated that the students were satisfied with these BVLDP. They enjoy learning through BVLDP. They said that BVLDP was interesting, fun and effective program in learning vocabulary. They could improve their performance in language learning over the computerized instruction. This finding was in agreement with Chun and Plass; 1996, Laufer and Hill;2000, De Ridder;2002 They have been found identically that learning vocabulary through computerized instructions or computer −mediated situations made the learners satisfied and improved their vocabulary learning better.

Implications of the present study

a) The BVLDP for Business English major students is useful giving them more opportunity to learn high frequency words occurring in reading the Business news of English newspapers and words often occurring in everyday life.

b) This BVLDP can be a model of how a program which is based on corpus, vocabulary learning theory can be used to practice, as well as a model for developing Computer-assisted vocabulary learning. It may be used as supporting materials in teaching and learning Business English; teachers can use it as a part of related courses in Business English programs offered for Business English major students.

Research recommendations for the future study

There are a number of suggestions to be made for the next study. Improvements will be made to the design of the BVLDP based on the results of the pilot study and the comments/ suggestions made by learners. More importantly, the following questions will be addressed:

a) Although the BVLDP was designed for Business English majors at Khon Kaen

University, after further study it can be used with other larger groups of Business English majors or learners who desire to enlarge or develop their vocabulary learning in other institutions in Thailand.

b) Research on the learning of Vocabulary in other sections of English newspapers, magazines or in other printed matter should be conducted.

c) The investigation of business news corpora should be enlarged to see the broad occurrences of words in the Business section, and also the various fields of business word occurrences in other authentic texts such as journals, magazines, etc should be investigated and considered as input for the corpus.

d) Vocabulary tests, such as Vocabulary Knowledge Scale (VKS) test should be administered more widely in the next study in order to measure the depth of students' vocabulary knowledge and vocabulary acquisition.

e) The majority of learners reported that they would like to use the program when more packages are developed; thus, more packages should be included in the next study.

f) Further studies should be undertaken to construct CALL programs on other skills and sub skills such as reading, listening witting, grammar, pronunciation etc.

In the design of the BVLDP for the Business English major students, it has been become apparent that the program is effective.

It contributes to the business English teaching and learning in Thailand as a proposal for improving the vocabulary of the Business English majors' students in the future.

References

Aegpongpaow. (2008). **A Qualitative Investigation of Metacognitive Strategies in Thai Students' English Academic Reading.** Thesis, M.A. (English). Srinakarinwirote University.

Aust, R., Kelley, M. J., & Roby, W. B. (1993). The use of hyper-reference and conventional dictionaries. **Educational Technology Research & Development,** 41, 63-73.

Baker &Westrup. (2000). **The English Teacher Handbook.** International Publishing Group.

Beck & McKeown. (1991). **Conditions of Vocabulary Acquisition.** NewYork: Longman.

Doff,A., Jones, C., Mitchell, K.(1983). **Meaning into Words.** Cambridge :Cambridge University Press.

Goodman, K.S. (1976). **Reading: a psycholinguistic guessing game.** In H. Singer and R. Ruddell (eds Theoretical Models and Processes of Reading International Reading Association, Newark. 2nd ed. [14.2

Hulstijn. (2000). The Use of Computer Technology in Experimental Studies of Second Language Acquisition: a survey of some techniques and some Ongoing studies. **Language Learning & Technology.**(3)2.

Hu Hsueh-chao & Nation. (2000). **Vocabulary density and reading comprehension, Reading in a foreign language.**

Hulstijn. (2000). **Intentional and incidental second−language vocabulary learning: a reappraisal of elaboration, rehearsal and automaticity, in P. Robinson, cognition and second language instruction.** Cambridge: Cambridge University Press.

Jordan, R. R. (1997). **English for academic purposes: A guide and resource book for teachers.** New York: Cambridge University Press.

Knight, S. (1994). Dictionary: The tool of last resort in foreign language reading? A new perspective. **The Modern Language Journal,** 78, 285-299.

Kufaishi (1988) vocabulary building program is a necessity, not a luxury. **English Teaching Forum.** 26, 2, 25-32.

Laufer & Hill. (2000). What Lexical Information do L2 Learners select in a CALL dictionary and how does it affect words retention. **Language Learning & Technology,** 3(2), 202- 232.

Laufer. (1989). **A factor of difficulty in vocabulary learning: Deceptive transparency,** ALLA Review, 6,10-20.

Meara, PM. 1996.The dimensions of lexical competence. In: G Brown, K Malmkjaer and J Williams (Eds.) **Competence and Performance in Language Learning.** Cambridge: Cambridge University Press.

Mondria & Wit-de Boer. (1991). The effects of contextual richness on the guess ability and the repetition of words in a foreign language. **Applied Linguistics.**(12)3.

Nation, I. S. P. (1990). **Teaching and learning new vocabulary.** New York: Newbury House.

Nation, P. (2001). **Learning vocabulary in another language.** Cambridge: Cambridge University Press.

Nation, I. S. P., & Coady, J. (1988). Vocabulary and reading. In R. Carter & M. McCarthy (Eds.), **Vocabulary and language teaching** (pp. 97− 110). London: Longman.

Nation & Waring. (1996) **Vocabulary: Description, Acquisition and Pedagogy** (pp. 6-19). Cambridge: Cambridge University Press.

Nation. (1990). **Teaching and learning vocabulary,** Massachusetts: Newburry House.

Nation, P. (2001). Using small corpora to investigate learner needs. In M Ghadessy et al eds. **Small Corpus Studies and ELT.** Amsterdam: Benjamins. 31-45.

Saragi, I. & I.S.P., Nation , G. F, Meister. (1978). **Vocabulary Learning and Reading.** London : Longman .

Schmitt,N. (2000). **Vocabulary in language teaching,** Cambridge: Cambridge University Press.

Scholfield. (1982). **The role of bilingual dictionary in ESL/EFL: A positive view,** Guidelines,4,84-98.

Simpson & Mendis. (2003). A corpus-based study of idioms in academic speech. **TESOLQuarterly** (37). pp. 419-441(23).

Sittirak, A. & Purnjamroen, S. (2009). The survey of British English and American English vocabulary usage of Thai students. **Journal of Social Sciences and Humanities,** 15(4), 559-575.

Tinkham. (1993). The effect of semantic clustering on the learning of second language vocabulary, **system,** 21,371-380.

Wangkangwan, N. (2007). **Contrastive structures between English and Thai: Their applications to translation.** Unpublished master's thesis, Srinakharinwirot University, Bangkok, Thailand.

Wallace, M.J. (1982). **Teaching Vocabulary.** London: Heineman Education Books.

Wallace (1984). Challenging student approaches to ESL vocabulary development. **TESL Canada Journal.**