

**THE DEVELOPMENT OF A CORPUS-BASED VOCABULARY
PACKAGE FOR BUSINESS ENGLISH MAJORS**

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จรงค์ เลียงพานิช : การพัฒนาชุดคลังคำศัพท์สำหรับนักศึกษาวิชาเอกภาษาอังกฤษธุรกิจ
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วัตถุประสงค์ของงานวิจัยนี้เพื่อสร้างโปรแกรมเพื่อการเรียนรู้ศัพท์โดยใช้คลังคำศัพท์
สำหรับนักศึกษาวิชาเอกภาษาอังกฤษธุรกิจ มหาวิทยาลัยขอนแก่น และ เพื่อหาประสิทธิผลของ
โปรแกรมนี้

กลุ่มตัวอย่างที่ใช้ในงานวิจัยนี้คือนักศึกษาวิชาเอกภาษาอังกฤษธุรกิจ ที่กำลังศึกษาชั้นปีที่ 3
ภาคเรียนที่ 2 คณะมนุษยศาสตร์และสังคมศาสตร์ มหาวิทยาลัยขอนแก่น จำนวน 46 คน เครื่องมือที่
ใช้ในการวิจัยประกอบด้วย แบบทดสอบก่อนเรียน แบบทดสอบหลังเรียน แบบสอบถาม และ
แบบสัมภาษณ์ โปรแกรมการเรียนรู้ศัพท์นี้ได้ผ่านกระบวนการทดลองใช้กับนักศึกษาวิชาเอก
ภาษาอังกฤษธุรกิจจำนวนสามครั้ง และได้รับการปรับปรุงแก้ไขจนสามารถนำมาใช้ได้จริงตาม
เกณฑ์มาตรฐานที่กำหนด 80/80 หลังจากนั้นได้นำมาทดลองจริงกับกลุ่มตัวอย่าง เป็นเวลา 10
สัปดาห์

ในการสร้างโปรแกรมการเรียนรู้ศัพท์ทางธุรกิจนี้ตั้งอยู่บนพื้นฐานหลักการของทฤษฎีพุทธิ
ปัญญานิยม ทฤษฎีการเรียนรู้คำศัพท์ และ ทฤษฎีการเรียนรู้ภาษาที่สอง ซึ่งผู้วิจัยได้ใช้โปรแกรม
เวิร์ดสมิท 4 ในการคัดเลือกคำศัพท์จากหนังสือพิมพ์เดอะเนชั่น โดยคัดจากคำศัพท์ที่มีความถี่สูง
จำนวน 4,375 คำจากคลังคำศัพท์ทั้งหมด 238,558 คำ นอกจากนี้ได้นำคำศัพท์ที่มีความถี่สูง ทั้ง
4,375 คำมาเปรียบเทียบกับ คลังข้อมูลคำศัพท์ที่พบ จาก BNC มี จำนวนทั้งสิ้น 2,170 คำ ซึ่งพบว่า
ทั้งสองคลังข้อมูล มีคำศัพท์ที่มีความถี่สูงที่ตรงกันจำนวน 890 คำ ต่อจากนั้นได้นำไปให้ครูผู้สอน
ภาษาอังกฤษธุรกิจ และนักศึกษาวิชาเอกภาษาอังกฤษธุรกิจเลือกคำศัพท์ยาก ซึ่งครูผู้สอนได้เลือก
คำศัพท์มีจำนวนทั้งสิ้น 380 คำ และนักศึกษาวิชาเอกภาษาอังกฤษธุรกิจเลือกได้ 450 คำ หลังจากนั้น
นำคำศัพท์เหล่านี้มาเปรียบเทียบกันอีกครั้งเพื่อหาคำศัพท์ที่ตรงกัน ปรากฏว่ามีจำนวนทั้งสิ้น 100 คำ
ดังนั้นผู้วิจัยจึงนำคำศัพท์เหล่านี้มาใช้เป็นเนื้อหาในการสร้างโปรแกรมพัฒนาการเรียนรู้คำศัพท์ ใน
การสร้างโปรแกรมคำศัพท์นี้ได้สร้างบทเรียน ซึ่งแบ่งออกเป็น 7 กิจกรรมการเรียนรู้ หลังจากนั้นได้
นำเสนอบทเรียนนั้นผ่านคอมพิวเตอร์แก่ผู้เรียน

ผลของการศึกษาวิจัยจากข้อมูลเชิงปริมาณพบว่า โปรแกรมการเรียนรู้ศัพท์ธุรกิจ มีค่า
ประสิทธิภาพ 80/83 มีประสิทธิผล 0.65 ซึ่งสูงกว่าเกณฑ์มาตรฐานที่ตั้งไว้ และผลคะแนนการ
ทดสอบหลังเรียน มีค่าสูงกว่าผลคะแนนการทดสอบก่อนเรียนอย่างมีนัยสำคัญทางสถิติที่ระดับ
0.001 และยังพบว่าผู้เรียนมีทัศนคติที่ดีต่อโปรแกรมการเรียนรู้ศัพท์ธุรกิจนี้ และแสดงให้เห็นว่า

ผู้เรียนสามารถ จำคำศัพท์ได้ เข้าใจความหมายของคำศัพท์ และนำไปใช้ได้ สถานการณ์จริงทางธุรกิจ

นอกจากนี้ผลการวิเคราะห์ข้อมูลเชิงคุณภาพ ได้แสดงให้เห็นเช่นกันว่า โปรแกรมเรียนคำศัพท์ธุรกิจนี้สามารถช่วยให้ผู้เรียนพัฒนาทักษะการอ่านและมีความรู้คำศัพท์ดีขึ้น ผู้วิจัยพบอีกว่าการให้ผู้เรียน ได้เห็นคำศัพท์ซ้ำกันประมาณ 5-7 ครั้งจะช่วยให้ผู้เรียนจำคำศัพท์ ได้ดี และจำนวนการเรียนคำศัพท์ประมาณ 7-10 คำต่อบทเรียน จัดเป็นจำนวนที่เหมาะสมต่อการเข้าใจและ ช่วยให้จำความหมายของคำศัพท์ได้ดียิ่งขึ้น แบบฝึกหัดคำศัพท์ ประเภทการเติมคำในช่องว่าง (Gap-filling) จัดเป็นแบบฝึกหัดคำศัพท์ที่ดีที่ช่วยให้ผู้เรียนเข้าใจความหมายและเดาความหมายของคำศัพท์ในบริบททางธุรกิจได้ดีขึ้น และยังพบว่าผู้เรียนมีทัศนคติที่ดีต่อโปรแกรมเรียนคำศัพท์นี้ ซึ่งได้ช่วยเสริมสร้างการเรียนรู้คำศัพท์ด้วยตนเองอีกด้วย

CHONGRAK LIANGPANIT : THE DEVELOPMENT OF A CORPUS-
BASED VOCABULARY PACKAGE FOR BUSINESS ENGLISH MAJORS
THESIS ADVISOR : ASSOC. PROF. SONGPHORN TAJAROENSUK.,
190 PP.

CORPUS-BASED/VOCABULARY BUSINESS ENGLISH

The purposes of the present study were to design the corpus-based business vocabulary learning program for Business English majors, Khon Kaen University and to determine its effectiveness. Forty-six third-year students, Faculty of Humanities and Social Sciences, KhonKaen University participated in the main study. The research instruments include the pre- and post- translation vocabulary tests, questionnaire, and interview. To ensure its quality, the BVLP underwent three trials during the pilot study, adjusted, and validated to ensure its quality. The final version of the BVLP was experimented among the participants in 10- weeks long main study. To teach the selected 100 vocabulary words, the BVLP was the constructed based on a theoretical framework derived from the Constructivism Theory, Second Language Acquisition Theory, and Vocabulary Learning & Teaching Theories. To determine a word list to be learned through the Wordsmiths 4, a corpus of 4,375 most frequently appeared words was chosen from a total of 238,558 words and 2,170 words from the British National Corpus (BNC). From a list of 890 overlapped high frequency words of the two corpora, 380 to be learned were chosen by experienced Business English teachers and 450 by the 46 participants mentioned earlier. A comparison of the two lists yielded 100 overlapped words to be mastered. After that seven vocabulary activities were designed and CALL was administered as an application for students to learn.

The quantitative results of the study revealed that the effectiveness and efficiency values of the constructed BVLP were 80/83 and 0.65 respectively, which was higher than the standard set. The pre- and post- test scores were significantly different at the 0.001 level. The findings also revealed that the BVLP helped them improve their vocabulary knowledge, recognize the words, understand the meaning of the words, and use the words correctly in business contexts. The results obtained from the qualitative data also demonstrated that this BVLP could improve their reading skills and vocabulary knowledge. The other results reveal that five to seven repetitions of the target words could help them remember the target words better. The number of words approximately seven to ten is appropriate for remembering and understanding words better. Also, the participants pointed out that gap-filling exercise is an effective vocabulary exercise to help them understand the meaning of words; guess the meaning of words in business contexts. Furthermore, the participants have positive attitudes towards learning the BVLP which can also promote autonomous learning.

School of English

Academic Year 2010

Student's signature _____

Advisor's signature _____

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CHAPTER 1

INTRODUCTION

This chapter presents introductory information involved in doing this research. It is divided into six main parts: the rationale of the study, the main purposes of the present study, the research questions, the scopes of the study, and the definitions of terms specific to this study and the significance of the study.

1.1 Rationale of the study

The needs analysis of the usage of English language among the personnel of industrial groups, the English Language Development Center or ELDC (2005) conducted a series of commissioned researches by the Higher Education Commission of Thailand on the needs of English in six types of business industries in Thailand, namely, the tourism industry, the hotel industry, the fashion industry, the food industry, Information Technology, and the automotive industry. It was found that the employees and employers in the six industries realized the significance and necessity of English in their workplaces, especially the junior administrators and operational workers.

Knowing vocabulary is considered useful for language learners (Nation, 2001). Meara 1996 states that learners who know more vocabulary are more proficient in language study 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. For some readers, this difficulty could pose the main obstacle and caused them to stop reading (Esky, 1975).

Kufaishi (1988) also 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 and by Holden (1993) who discovered that the Business English students lacked vocabulary knowledge, and are dependent dictionaries on reading.

In Thailand, 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 Ponjamrean (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. Furthermore, Yimwilai (2008) studied about the reading problems of Srinakharinwirot University students, it was found that one of the main problems comes from poor vocabulary knowledge. These studies revealed that vocabulary is a major obstacle in reading for Thai students.

In 2007, a preliminary investigation into the problems in learning and teaching Business English was conducted by this researcher, fifty Business English majors and five Business English teachers at Khon Kaen University were asked to complete an open-ended questionnaire. The study revealed that the students perceived vocabulary as their main obstacle.

To obtain additional in-depth information in order to confirm the data generated through the survey, ten of these students were interviewed about their problems in learning Business English. Eighty of them confessed that they had limited vocabulary knowledge, when reading texts in a business context. They expressed a need for supplementary materials to assist in improving their vocabulary knowledge in order to understand business documents. They also believed that the range of vocabulary that they had acquired from previous courses was insufficient.

Five Business English teachers were also asked to list the problems they had when teaching Business English. The results also corresponded with students that vocabulary was the main obstacle in the teaching of Business English. Furthermore, the teachers also said that they had to prepare the supplementary materials in teaching Business English because the Business English commercial books available in the educational market could not serve all of the needs of the learners and that the time for students to practise the skills and other sub- skills of language in the classroom was not sufficient.

Obviously, it was reasonable to conclude that vocabulary was one of the major problems in teaching and learning Business English at KCU. This called for a focus on the vocabulary development for the KCU'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.

Determining which words should be taught and learned has been an issue in one of the recent trends is to use. The corpus-based approach is used as the main basis in vocabulary development. Materials developed with corpora are believed to be more authentic and enabled researchers to identify with a high degree of specificity which recurring words and phrases a language learner would profit most from studying, given his or her learning goals (Biber, Conrad, & Reppen, 1994; McCarthy & Carter, 1997; Simpson & Mendis, 2003; Schmitt, 2004).

Lists of frequent English words and the extent to which they offer coverage of particular genres obtained through the use of Wordsmiths as a tool have been explored by L2 vocabulary acquisition researchers such as Laufer (1992), Sutarsyah, Nation, and Kennedy, (1994), Nation and Waring (1997), and Coxhead (2000).

To select the vocabulary that are the most frequent and most useful to ensure that the contexts in which words are used are authentic ones, based on the contexts that occur in corpora and most relevant to their ESL lives, is undeniably necessary. The researcher has, therefore, attempted to use this approach to develop the Business English vocabulary for Business English majors in the Thai contexts.

Numerous studies have shown that computerized media and a multimedia environment can be helpful for learning foreign language vocabulary (Al-Seghayer, 2001; Groot, 2000; Hulstijn, 2000; Laufer & Hill, 2000; Brett, 1998; Duquette, Renie, & Laurier, 1998; Plass, Chun, Mayer, & Leutner, 1998; Davis & Lyman-Hager, 1997; Chun & Plass, 1996; Siribodhi, 1995; Lyman-Hager, Davis, Burnett, & Chennault, 1993).

Using computers for vocabulary learning given a very effective way of putting many of the principles of good vocabulary learning into practice, particularly

with regards to provide repetitions and opportunities to retrieval (Nation ,2001). To meet the needs of the learners, to stimulate a good learning environment, to direct principles of teaching and learning vocabulary in context and sequencing, to have an interesting format and presentation, to monitor assessment and evaluation, and to promote autonomous learning(Nation ,2001).

Coady, Magoto, Graney and Mokhtari (1993) conducted a vocabulary CALL program suggesting that learning practice with high-frequency vocabulary through computer-assisted learning did benefit reading. Goodfellow (1994) proposed that vocabulary CALL programs be constructed to address the learners' need to build a sizeable L2 mental lexicon, to maximize interactivity in the selection, processing and practice of target words, to promote a deep learning, to support learning processes which focus on structure in the target-word list, and to diagnose and help modify surface facilities.

White & Arika (2006) developed a program to help students in English Language Arts to interactively increase their vocabulary development by using compound words and fully incorporating the six levels of Bloom's Taxonomy to further enrich, enhance, and extend the students' learning processes. The results showed a significant increase in the participants' post-test scores of the participants, thereby indicating that the students' language arts skills improved with Computer-Assisted Instruction.

Ma, Qing, Kelly, and Peter (2006) conducted the research focusing on the design and evaluation of the Computer-Assisted Vocabulary Learning (CAVL) software WUFUN. It is found that vocabulary should be learned explicitly as well as implicitly and that learners needed to be trained to become good learners, e.g., by being taught in useful learning strategies, to enable them to learn vocabulary more efficiently and effectively.

Ghabanchi and Anbarestani (2008) explored the effects of CALL on vocabulary learning and found (a) learners had an intensive mental processing which resulted in long term recall of words;(b) CALL also produced better results in contextualized vocabulary learning than the ordinary desktop dictionary method; (c) CALL was also a better way of expanding vocabulary knowledge in a short period of time, and(d)CALL programs resulted in a better retrieval in vocabulary learning.

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 no such programs have been particularly designed to prepare the Business English learners to meet the demands of business communities in the Thai context.

1.2 Purposes of the Study

1.2.1 To develop the Business Vocabulary Learning Program (BVLP) for Business English majors.

1.2.2 To determine the effectiveness of the Business Vocabulary Learning Program.

1.3 Research Questions

1.3.1 Does the BVLP improve the Business English majors' vocabulary knowledge?

1.3.2 To what extent do the Business English majors, as the BVLP users, think the program help them recognize words, understand the meanings of the words, use the words correctly, and remember the words?;

- 1.3.3 How does each type of exercises in the BVLP help the Business English majors improve their vocabulary knowledge?

1.4 Scopes of the Study

- 1.4.1 The vocabulary selected to be included in the BVLP was obtained from the business news' section of the Nation newspaper only and through the corpus-based approach.
- 1.4.2 The sample group was restricted to the Business English majors, Khon Kaen University.

1.5 Definition of Terms

- 1.5.1 "*The Nation*" refers to an English daily newspaper published in Thailand.
- 1.5.2 "Corpus" refers to a collection of naturally occurring words and examples of language, ranging from a few sentences to a set of written texts, which are found in the Business News section of *The Nation*.
- 1.5.3 "Business News" refers to the reports of business circumstances or events printed in *The Nation*.
- 1.5.4 "Vocabulary" refers to the selected words in the Business News section in *The Nation*.
- 1.5.5 "Students" refer to the third-and fourth- year Business English majors who were studying in the second semester of the 2007-2008 academic year at Khon Kaen University

1.6 Significance of the Study

As a tailor-made program, especially designed to serve the specific needs of Business English majors at Khon Kaen University, the BVLP was expected to make the following contributions:

- 1.6.1 A Business English vocabulary corpus based on the Business news section of a local English newspaper would be obtained.
- 1.6.2 The constructed BVLP would clearly illustrate the step-by-step approach involved in the design of a particular vocabulary development program that can serve the specific needs of the learners in their real contexts.
- 1.6.3 The constructed BVLP represents a theoretically sound technology-enhanced vocabulary learning program meant for individualized, independent and autonomous learning.
- 1.6.4 The constructed program would fill the gap of the shortcomings of the commercial programs available in the educational markets in Thailand.

1.7 Summary

This chapter provides the rationale and background of the research study, and its purposes, followed by the research questions. The scope of the study, definitions of terms used, and the significance of the study are presented. The next chapter reviews the related literature, which leads to the theoretical framework for the present study.

CHAPTER 2

LITERATURE REVIEW

The main aim of this chapter is to present the theoretical framework of present study, the related literature and research studies. It is divided into eight main parts. The first part is concerned with the underlying the principles on which this study is based on: constructivism theories and second language acquisition theories. The second part shows the key concepts of vocabulary learning and teaching. The third part reviews trends and development in vocabulary exercise. The fourth part presents the information about the corpus, and the fifth part is about CALL. The sixth part is devoted to previous research relevant to this research study, followed by the theoretical framework of the present study. Finally, a summary is presented.

2.1 Underlying principles

2.1.1 Constructivism Theory

Piaget(1970), a Swiss psychologist, believes that learners' learning happens through meaningful explorations of the environments around them and that they then form 'schemes' or organized patterns of behavior or thought are then focused as a result of the interactions (Biehler & Snowman, 1993).

Jones (1997) suggests that learning be considered "a process of sense-making, of adding and synthesizing new information within existing knowledge structures and adjusting prior understandings to new experiences." therefore, the meaning perceived

by each learner from a particular learning experience is unique and each individual's experience is filtered through their personal understandings, beliefs, and values.

McInerney (2002) claims that knowledge is not transmitted directly from one knower to another, but are actively built up by the learner. While as Spivey (1997) demonstrates that a constructivist perspective might be described as *“an emphasis on active processes of construction of meaning, attention to texts as a means of gaining insights into those processes, and an interest in the nature of knowledge and its variation, including the nature of knowledge associated with membership in a particular group”*.

It can be clearly seen that the constructivist theory shifts the focus way from teaching and moves towards learning. Learning is considered to be an active process. The focus of learning is largely placed on the learners themselves. They are the ones who actively interact with the environment in order to construct the meanings based on their past accumulated experiences. Knowledge cannot be totally transferred from one person to another because it is the result of each person's interpretation of a variety of interactions with the world.

2.1.1.1 The role of constructivism in terms of learners, teachers and, classroom

Students in this theory are considered to be active and to construct meaning in their own ways. Learners control their own learning and the search for meanings takes a different route for each student (Brooks, 1999). Learners must be active and they are not just vessels to be passively filled with facts (Slavin ,1994; Ginn ,2004), and that a learner plays the role of an active constructor of knowledge (Ruschoff and Ritter 2001). Beatty (2003) also mentioned that learners construct new

ideas or concepts by making use of their own knowledge and experience. The learner has greater control and responsibility over what he or she learns and relies on schema to select and transform information, create hypotheses and make decisions.

In brief, within a constructivist framework, learning is defined as an active process in which learners construct new knowledge and awareness based upon current and past knowledge and experience.

Teachers in this theory are no longer treated as knowledge givers; they are neither considered 'experts' who pour knowledge into passive students nor authorities who are in charge of everything in the classroom. Instead they serve as guides who provide directions for learners, especially the ones who are having difficulty in the learning process. Adair-Hauch and Donato (1994), Sechez (1997), Gruender (1996) and Roblyer (2003) also state that teachers in constructivism only act as facilitators or mediators to students and become like peers to them. They have to guide learners to observe, to activate prior knowledge and to create environments or situations to prepare students to cope with real situations outside of the classroom.

The classroom environment in this approach is unique in that *"learning materials must be capable of supporting a variety of learners, possessing a variety of perspectives, as they (learners) attempt to create meaning from the instructional materials ...meaning is not inherent and fixed in instructional material; instead, meaning is created by learners as they interact with the materials"*, (Cennamo, Abell and Chung 1996).

It can be seen that the classroom in this theory strongly emphasizes the complexity of the real world that students have to face in their real lives. Teachers are, hence, responsible for providing an environment that is rich and complex in order

that they offer learners an opportunity to confront input that contains the characteristics of real life communication. Several kinds of interactions should be promoted to maximize a chance to construct meaning.

2.1.2 Second language acquisition Theory

An implicit vocabulary learning hypothesis holds that the meaning of a new word is acquired totally and unconsciously as a result of abstraction from repeated exposures in a range of contexts. A distinction between acquiring and learning was made by [Stephen Krashen](#) (1983) as part of his [Monitor Theory](#). According to Krashen, the *acquisition* of a language is a natural process; whereas *learning* a language is a conscious one. In the former, the student needs to partake in natural communicative situations. In the latter, error correction is present, as is the study of grammatical rules isolated from natural language. He also exemplifies this view. His Input Hypothesis assumes that we acquire language by understanding messages: “language is subconsciously acquired - while you are acquiring, you don’t know you are acquiring; your conscious focus is on the message, not form.”

An explicit vocabulary learning hypothesis holds that learners’ acquisition of new vocabulary can be strongly facilitated by the use of a range of metacognitive strategies: (i) noticing that the word is unfamiliar, (ii) making attempts to infer the word from context (or acquiring the definition from consulting others or dictionaries or vocabularies), and (iii) making attempts to consolidate this new understanding by repetition and associational learning strategies such as semantic or imagery mediation techniques.

To conclude, second language learning theory relates to vocabulary learning in that it deals with both implicit and explicit learning. Both of these learning styles should be considered when teaching and learning vocabulary.

2.2 Vocabulary

2.2.1 Vocabulary Knowledge

Nation (2001) classifies knowledge of vocabulary into ‘receptive’ and ‘productive’. Receptive knowledge refers to the ability of recognition of forms and meanings, including the behaviors of words and their meanings used in different contexts. Productive knowledge means the ability to use words productively and correctly in different contexts. This type of knowledge is, therefore, used in speaking and writing, and learners go from meaning to the form of a word.

However, Laufer, Elder, Hill, Congdon (2004) and Corson (1995), turned receptive and productive knowledge respectively as ‘passive’ and ‘active’ knowledge.

2.2.2 Vocabulary learning

2.2.2.1 Objectives of vocabulary teaching and learning

Ooi and Lee (1996) propose that “the main focuses in teaching vocabulary should be to make the learner more discriminating of word form, word meaning, and word use”, while

Aebersold and Field (1997) affirm that the three main goals of vocabulary teaching and learning are to help students 1) to know the vocabulary in the text, 2) to recognize vocabulary to make sense of the text, and 3) to consider vocabulary students need to know to function in the L2/FL in the future. Baker and Westrup (2000) suggest that teachers need to teach students what the word means, its pronunciation, and how to use the word. Krashen and Terrell (1983) assert that one goal of vocabulary learning is to provide enough vocabulary to allow language use outside the classroom, and to place the students in a position to continue second language acquisition. Similarly, Catala (2003) proposes the vocabulary learning goals

as: 1) to find out the meaning of unknown words; 2) to retain them in long-term memory; 3) to recall them at will; and 4) to use them in oral or written mode.

2.2.2.2 What native speakers and second language learners know about vocabulary

In learning vocabulary, there are several things native speakers have to know. They have to understand the meaning of words, words used in both spoken and written forms, the connotations of a word, how words change in meaning, and the metaphorical and literal meanings of words (Wallace, 1982; Harmer, 1996). For second language learners, what they have to know about vocabulary are: the meanings of words in context and sense relations, words used in metaphors and idioms, word formation part of speech, and word grammar. It is worth noting that when learning vocabulary, the similar things that both native speakers and non-native speakers have to know are the meaning of words, the word usage, pronunciation, and grammar.

2.2.2.3 How many words the second language learners need

When considering vocabulary learning, there are many questions to be asked concerning how many words the second language learners need. There are many discussions mentioning this problem. Nation and Waring (1996) state that generally the vocabulary found in a dictionary consists of about 54,000 word families. The native speaker adds roughly 20,000 word families a year to their vocabulary sizes. The second language learner needs to know 3,000 or so high frequency words, while Allen (1983) states that it is impossible for second language learners to know the 30,000 words that the native speaker knows and that second language learners need know only a much smaller number, no more than 3,000 words.

Knowing approximately 3,000 high frequency and general academic words is significant because this amount covers a high percentage of the words on an average page. The 2,000 high frequency words in West's (1953) *General Service List* cover 87% of an average non-academic text (Nation, 1990). Similarly, for second language learners entering university, Laufer (1992) found that knowing a minimum of about 3,000 words was required for effective reading at the university level, whereas knowing 5,000 words indicated likely academic success.

It can be concluded that non-native speakers should be expected to know no more than 3,000 – 4,500 words.

2.2.2.4 How many new words EFL students have to learn at a time

Wallace (1984) suggests 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. He also found from his research on vocabulary growth that students learned as few as 1,000 words to as many as 7,300 new words per year. This is about 10-20 words a week. McCarthy (1996) advises that students learn about 5-15 new words each week. Baumann & Kameenui (1991) and Graves (1986) indicate that the number of new words students learn is about 3,000 words a year. Approximately 8 words are learned per time (Doff, 1983; Nation, 1982).

It cannot be concluded exactly as to how many new words students should learn. However, students should learn approximately 10-20 new words per week. Therefore, in designing the vocabulary learning program for this study, approximately 10 words study is an appropriate number for students to learn.

2.2.2.5 How much time students take in remembering the word?

Gairns & Redman (1990: 86-87) state that there are two main kinds of memory: short- term and long- term memory. Our capacity for short-term retention is limited and usually up to thirty seconds. Long-term memory is the capacity for the recall of information weeks and years after getting the first input. Kachroo (1962) found that words repeated seven times or more were on is tit known by learners. Similarly, Crothers and Suppes (1967) suggest that six or seven repetitions are the minimum requirement for vocabulary learning, while Saragi et al. (1978: 72-78) states that learners need to experience 16 repetitions to recall words. Nation (1982) states that students need to see words only about 7-8 times until they can remember them and those students will remember words better if they have more opportunity to practice them. Wallace (1984) states that words can be remembered by hearing them once. On the other hand, Wodinsky & Nation (1988: 155-161) state that students need 10 repetitions to remember words. However, students can remember those words, if they see or use words more than once and practice them over and over. In 1990, Nation concluded that 5-16 exposures are needed in order to learn a word from context. Tinkham (1993) says that learners require 5-7 repetitions to remember words.

It cannot be concluded exactly about how much time students take in remembering words to store in their memory. However, the majority of scholars mention that the learners can remember after approximately 7-10 repetitions for vocabulary memorization. Therefore, the words which are selected for students to learn are included approximately 7-10 repetitions for vocabulary learning program.

2.2.2.6 Vocabulary learning approaches

According to Nation (1990); Rubin and Thompson (1994); Richek et al. (1996), there are two general ways in which learners learn vocabulary: the direct vocabulary learning approach, and the indirect vocabulary learning approach.

‘Direct’ or ‘explicit’ vocabulary learning is involved in conscious learning processes when language learners learn vocabulary explicitly, either in context or in isolation, through direct instruction in both the meanings of individual words and word-learning strategies” (Laufer and Hulstijn, 2001). In direct learning, learners are systematically taught specific words and language structures (Richek et al. 1996). This approach of vocabulary learning is necessary for learning core vocabulary - basic and important vocabulary that is used and serves in most situations. This is particularly true for the learning of basic lexical and semantic knowledge, particularly for beginner-level or less successful language learners (Nation, 1990).

Indirect or ‘implicit’ vocabulary learning, on the other hand, involves learning the meaning of new words implicitly when language learners hear or see the words used in many different contexts, for example, through daily opportunities, through conversations with others and through reading extensively on their own (Read 2000; Laufer and Hulstijn 2001). Indirect vocabulary learning is concerned with unconscious processes of learning through reading or listening without language learners necessarily being aware of the goals of learning ; new words are learned incidentally while reading or learning from listening to stories, films, television or the radio (Anderson and Nagy, 1991; Nation, 1982; 2001; Sternberg,1987). Moreover, learners absorb the meaning of the vocabulary, grammatical structures, and concepts simply from being exposed to rich language (Richek et al. 1996). Learning

vocabulary indirectly via guessing from context is widely accepted as the most important of all sources of learning vocabulary (Nation 2001).

Many researchers (e.g. Carter, 1997; Gu, 2002; 2003; Hulstijn, 1992; Nation, 1990; Schmitt, 2000; Sökmen, 1997; Sternberg, 1987) have maintained that guessing the meaning of words presented in context is an effective strategy for vocabulary learning, and that most vocabulary can be learned from context by means of strategies of inference.

To sum up, although there is evidence that indirect vocabulary learning is found to be beneficial, in recent studies of L2 learners, a combination of both direct and indirect vocabulary learning approach is evidenced to be superior to either direct or indirect vocabulary learning alone. Both types of vocabulary learning approaches improve learners' language abilities, and thus should be emphasized in English learning, so that language learners know how to maximize the effectiveness of learning, using, coping with and storing newly-learned vocabulary on their own.

2.2.2.7 Vocabulary selection

There has long been recognition of the need to give principles attention to the selection of the vocabulary that should go into a course. Since we cannot usually teach all of the words that a learner should know in a foreign language, it is necessary to find some basis for selecting words (Worthington & Nation 1996). Harmer (1991) and Worthington & Nation (1996) point out that one of the problems of vocabulary teaching is how to select what words to teach.

Mackey (1976) suggests criteria for vocabulary selections which are: (1) frequency, (2) range, (3) availability, (4) coverage, and (5) learn ability. Similarly, Gairna and Redmen (1986) suggest that the selected lexical items should be useful.

They offer the following criteria: 1) frequency: the high frequency of an item is no guarantee of usefulness, but there is obviously a significant correlation between the two so it is worth examining some of the work on frequency word-counts that has been carried out over recent decades, such as the General Service List of Words (West, 1953). 2) Cultural factors 3) Need and level.

Carter & McCarthy (1988) also support the same criteria of vocabulary selection of West and others on the early stages of acquisition are that: 1) the frequency of each word in written English should be indicated; and 2), information should be provided about the relative prominence of the various meanings and uses of a word form.

Nation & Coady (1988), Hunston and Francis & Manning (1997) also note that all vocabulary selection is in one way or another based on frequency counts. Vocabulary difficulty is estimated in various ways; the most usual are word frequency and or familiarity and word length. That is, sentences are more readable if they contain words that are of high frequency in occurrence and that are shorter rather than longer.

In conclusion, all vocabulary selection is in one way or another based on frequency counts (Gairns & Redmen, 1986; Nation & Coady, 1988; Harmer.1991). Words have been listed and taught on the basis of frequency; that is, the number of times they appear in the average reading materials. Therefore, in the present study, words frequency is used as a main principle for words selection in designing the vocabulary program.

2.2.2.8 Vocabulary Exercise

Types of vocabulary exercises have been identified by various scholars. Wallace (1993) states that exercise in vocabulary have two parts: word-meaning exercises and word-structure exercises. Word-meaning exercises are subdivided into: inference exercises, synonym/antonym exercises, semantic field

exercises, definition and dictionary exercises. Word-structure exercises are subdivided into those concerning word structure, collocation, cohesion, and variety. Similarly, Ur (1996) states that the types of exercises in vocabulary are: multiple choice, matching, odd one out, writing sentences dictation, gap-filling, translation sentences, and completion. Ward (2001) presents types of exercises, namely, word expansion, anagrams; fill in the blanks, question and answer, close, and multiple choice.

However, Paribakht and Wesche(1996) proposes the types of vocabulary exercise based on the typology of the text-based vocabulary exercise, comprise five main stages: 1) selective attention corresponds to Gass's most basic level 'apperceived input' or noticing. This type of tasks (selective attention) is designed to draw the attention of learners to the target words and, thus, seems to require the least mental effort. Examples are having students read the target words before reading and then notice where the target words appear in the text or underline the target words in the text any time they see those words, and boldfacing, italicizing, circling, or making other visual signs on the target words. Recognition is the second level of Gass's is 'comprehended input' or input comprehension. This type of task requires learners to recognize the target words and at least one of their meanings, hence, requiring only partial knowledge of learners. This type of task seems to require more mental effort than the first type (Selective Attention) and it seems to correspond to Level 1 (Association Processing) of word mastery of Stahl (1985). Examples include: matching the target word with a definition or synonym, recognizing the meaning of the target word from multiple choices, choosing the picture after seeing or hearing the target word, or seeing or hearing the target word in L2 and giving its synonym or definition in L1; 3) Manipulation refers to Gass's third level, and is 'intake'.

'Manipulation' tasks correspond to this level in that it is claimed to require deeper mental processing than the previous categories. It involves morphology and grammatical knowledge of the words and seems to correspond to Level 2 (Comprehension Processing) of the word mastery of Stahl (1985). Examples are giving other forms of words (i.e., changing the part of speech of the target word, such as from noun to adjective, or from verb to noun and using roots and affixes to form words; 4) Interpretation corresponds to Gass's 'integration'. This level is claimed to involve more precise semantic and syntactic analysis, including the relationship of target words with other words in contexts (e.g. collocations, synonyms, and antonyms). Thus, this type of exercise seems to require more mental effort than the previous categories. It seems that Level 2 of Stahl (1985) corresponds to both the Recognition and Interpretation types of Paribakht and Wesche (1996). Examples are choosing the odd word out of a set of collocationally related words, understanding the meanings and grammatical functions of the target word in the context (i.e. in the reading text), and recognizing words that could be substituted in the text, and multiple choice cloze exercises; 5) Production. The production level corresponds to the 'output' level in Gass's (1988) framework. This type of task requires learners to recall and produce the target words, hence requiring a deeper level of word processing. This kind of exercise is claimed to require the deepest level of mental effort and may correspond to Level 3 (Generation Processing) of the word mastery of Stahl (1985). Examples are open cloze exercises, labeling pictures, answering a question by using the target word, seeing or hearing the meaning of the word in L1 or the L2 synonym of the word and providing the target word, and finding mistakes in the idiom use, presenting the word in incorrect contexts, and correcting it.

In conclusion, vocabulary exercise types can be divided into two main groups; no text –based exercises, including matching, multiple choice, gap-filling, translation, question and answer cloze, and text-based exercises based on Gass’s theory including matching the target word with a definition or synonym, recognizing the meaning of the target word from multiple choices, choosing the picture after seeing or hearing the target word or seeing or hearing the target word in L2 and giving its synonym or definition in L1, giving the part of speech of the target word, open cloze exercises, labeling pictures, answering a question by using the target word, seeing or hearing the meaning of the word in L1 or the L2 synonym of the word and providing the target word, and finding the mistake in an idiomatic use presented in context, and correcting it. In the present study, both exercises based on text and no text –based exercises, including matching, gap-filling, and text-based exercises based on Gass’s theory including matching the target word with a definition or synonym, recognizing the meaning of the target word and giving its synonym or definition were used in the designing of vocabulary learning program.

2.3 Corpus Study

2.3.1 The History of corpus study

During the early 1990s, the early corpora were composed to serve language teachers attempting to teach English systematically and to facilitate English for their learners (Jeffery, 1953). Nevertheless, creating large corpora was not possible because electronic or computer tools were not convenient. Thorndike and Lorge’s Lists (1994) in the United States and West’s General Service List of English words (1953) in Britain were both descended from manually-composed corpora. The study

of word frequency and word frequency lists has learned by computer and information technology. The premier English language dictionary was built on a computer corpus and printed in 1987. The Collins Cobuild English Language Dictionary is the first English language dictionary, which was based on the Birmingham Collection of English texts.

2.3.2 Major electronic corpora for linguistic research

Some well-known electronic word lists, which are very useful for linguistic research, are the Brown Corpus (BC), the Lancaster-Oslo/Bergen Corpus (LOB), the London-Lund Corpus (LLC), the Bank of English (BoE), the COBUILD Project, the British National Corpus (BNC). These words lists are explained in detail below.

The Brown Corpus was important as the first computer corpus compiled for linguistic research. The collection was undertaken in 1963-1964 at Brown University, under the command of Professor W. Nelson Francis and Professor Henry Kucera. It is an orthographically transcribed corpus of 1,014,294 American English words (Kennedy, 1998).

London-Lund corpus became available, Francis & Kucera endeavored to extend the collections of data in English and in other languages (Kennedy, 1998)., a corpus of 1,006,825 British English words was compiled at the University of Lancaster and the University of Oslo in cooperation with the Norwegian Computing Centre of the Humanities at Bergen. Similar to the Brown Corpus, the LOB corpus includes 500 texts of 2,000 words each. On the other hand, the sampling was based on different bibliographic sources and different weightings in the collection of newspapers. Otherwise, the differences do not importantly change the similarities of the two corpora.

The Bank of English is the first generation corpus of monitor corpora. BoE is a compilation of contemporary English language on computer for the investigation of words, meaning, grammar and usage. It was launched in 1991 by Collins, a UK publisher, and the University of Birmingham. The size of the corpus is 450 million words as of January, 2002. This corpus is composed of a wide range of dissimilar types of writing and speech from hundreds of different sources.

The COBUILD project is a cooperation between a major commercial publisher, *Collins*, and the English Department of the University of Birmingham that made use of the Birmingham Collection of English texts, undertaken by Professor John Sinclair who is an important editor of the major lexicographic and other related publications of COBUILD (Carter, 2000). The compilation of this corpus was to study in detail how the English language is used both in speech and in writing, the Collins COBUILD English Dictionary published in 1995 contains a general corpus of 20 million words.

The British National Corpus was compiled by a consortium of British publishers and academic institutions such as Oxford University Computing Services, Lancaster University's Centre for Computer Research on the English language, and the British Library. It is a 100 million-word corpus of modern English that is taken from 4,124 texts of which 90 percent are written and 10 percent are spoken sources, including everyday conversations.

The texts in the BNC from written sources can be separated into two main types: about 75 percent is informative prose which was all published in 1975 and about 25 percent is imaginative (library works) that were published in 1960.

In conclusion, it can be seen that there have been a number of some well-known electronic word lists, which are very useful for linguistic research and helpful

for teachers in teaching vocabulary items. This indicates that course designers should have word frequency lists to guide them when they regard the vocabulary constituent of a language course. Teachers also need to have reference lists to choose whether a particular word justifies attention or not and whether a text is appropriate for a class.

2.3.3 Definition of a Corpus

A corpus is defined by various sources. Sinclair (1991: 14) defines a corpus as "a collection of naturally occurring language text, chosen to characterize a state or variety of a language."

Leech (1997: 3) defines a corpus as "a rich resource of authentic data containing structures, patterns and predictable features that are waiting to be 'unlocked' by the human intelligence."

Hunston (2002: 2) defines a corpus as "a collection of naturally occurring examples of language, consisting of anything from a few sentences to a set of written texts or tape recordings, which have been collected for linguistic study."

A corpus (plural: corpora) is always used to analyze language use. Researchers have used corpora to count categories and record phenomena that have not been observed before. They can be used to investigate ways in which similar structures occur in different contexts and serve different functions (Biber, Johansson, Leech, Conrad, and Finegan, 1998; Hunston, 2002).

In summary, a corpus is defined as a collection of naturally occurring language text, examples of language, a set of written texts or tape recordings, occurring in different contexts and is used to analyze language use.

2.3.4 Principled Collections of a Corpus Design

For the size of a corpus, Fox (1998 cited in O’Keeffe and Farr, 2003: 409) states the size of a corpus must be large enough to fairly represent the vocabulary occurrence within a language and can consist of millions of words, especially when analyzing collocations. A size of about 100,000 is also acceptable in the case of a specialized corpus (Kaewphanngam, Broughton, and Soranasataporn, 2003). A large corpus is essential for developing references but a smaller corpus is better for training students to use corpora in the classroom (Aston, 1995). Norri and Kyto (1996) used scientific writing and different types of scientific writing written at varying levels of technicality for their sampling frame. Additionally, researchers must be aware of logistic factors such as time, budget, and manpower when determining the size of the corpus.

The representation of the corpus is the second important principle in corpus design. It is the diversity of the corpus or the appropriateness of the varieties that are represented. Leech (1991) suggests that an appropriately selected corpus can be generalized to the language as a whole or a specified part of it. Coxhead (2000: 216) remarks that a variety of short texts allow for more variation in vocabulary occurrence and the variety of writers helps to decrease the bias of the idiosyncratic language style among each writer. Therefore, texts written by a variety of writers should be used in a corpus study in order to produce valid data.

2.3.5 Concordance Software

In early corpus linguistics, researchers had to rely on humans to collect and analyze the data (McEnerfy and Wilson, 1996). Today, computer and software programs have been designed to assist researchers to analyze how a text has been put

together (Fraser and Condron, 2000). Using computers for processing natural language texts vastly improves the quality of a corpus (Sinclair 1991).

Concordance software provides access to any electronic text such as a text available on the computer or from a CD-ROM-based corpus or database or the Internet for the occurrence of particular words or structures or combination of words. It can count and sort at great speed, and this is the strength of electronic textual analysis (Higgins, 1991). Many concordance programs are selected for text analysis in different capabilities as shown in Table 2.1.

Table 2.1 Concordance Programs

Title	System Requirements	Producer	Price	Downloadable demo from
MicroConcord	IBM XT, AT or PS/2 with floppy disk (5.25" or 3.5") and hard disk (optional but desirable); 200K of RAM; DOS 3.0 or higher.	Oxford University Press	£50+VAT (single user); £250+VAT (site license).	http://www.lexical.ly.net/wordsmith/version4/index.htm
WordSmith Tools Version 4.0	Windows 98, 2000 and XP	Oxford University Press	£50+VAT (single user); £250+VAT (10 users); £500 +VAT (50 users)	http://www.lexical.ly.net/wordsmith/version4/index.htm .
Oxford Concordance Program (OCP)	MS-DOS	Oxford University Press	£175.00+VAT (single user); £1,000+VAT (site license);	http://www1.oup.co.uk/E/P/Humanities/Micro-OCP/

Title	System Requirements	Producer	Price	Downloadable demo from
			£495.00 (department license)	
TACT	MS-DOS, Window	University of Toronto	Freeware for the subscribers	http://www.tact-online.org/iata/welcome_nt/start.html
WordCruncher	MS-DOS	Brigham Young University	Freeware for the subscribers	http://wordcruncher.byu.edu/wordcruncher/EtaDocumentation.htm

A popular software program is *Wordsmith Tools* developed by Mike Scott (1996). It is an integrated suite of programs which examines how words behave in texts. The Wordlist tool can count the occurrence of each word form and then list them in descending or ascending order of frequency or alphabetically. It also provides statistics, such as total number of words, length of words, and number of sentences. The Concord tool can create concordances (lists of words in context), find collocates of the word, identify common phrases, and display a graphical map showing where the word occurs in the corpus. The user can key a word into the program and the program identifies all the occurrences of word in the documents and displays the context according to the preference of the user. The Keywords tool can distribute words or sets of words through various parts of the text by keying the word in a given text. It displays a graphical map showing where each key word occurs in the corpus. Both Gledhill (2000) and Flowerdew (2003) used WordSmith Tools to conduct their research.

Gledhill (2000) characterized the phraseology of introductions from a corpus of 150 cancer research articles. He found that the fixedness and idiosyncratic nature of scientific phraseology was dependent on discourse processes such as reformulation. The Keyword computer program in WordSmith Tool was used to compare frequency lists from the corpus by providing a list of frequent words that were more significantly frequent in one section than in the rest of the corpus. This enabled a principled approach to decide which grammatical words to analyze.

Flowerdew (2003) described similarities and differences between expert and novice writing in the problem-solution pattern, a frequent rhetorical pattern of technical academic writing. A corpus was created consisting of undergraduate student and professional writing, consisting of 80 and 60 recommendation reports, respectively, with each corpus totaling approximately 250,000 words. WordSmith Tool was used to search for key words that automatically provide linguistic evidence for the problem-solution pattern.

In summary, it is apparent that there is a great number of concordance software available to provide an access to any electronic text such as a text available on the computer or from a CD-ROM based corpus or database or the Internet for the occurrence of particular words or structures or combination, but that most of the scholars (Flowerdew, 2003; Gledhill, 2000; Fraser and Condron, 2000; and Conrad, 2005) used the WordSmith Tool to construct the corpus and analysis. Therefore, this software is thought to be available and acceptable to use for the development of a corpus.

2.3.6 Benefits of Corpus Studies

McEnery & Wilson (2004) present four important benefits for using corpus data 1) sampling and quantification, 2) ease of access; 3) enriched data. Thus the corpus

provides one of the most reliable sources of naturally occurring data that can be examined (McEnery & Wilson, 2004: 20).

Most teachers and materials writers have employed corpus-based study to set types of vocabulary. Thuratun & Cardlin (1998) stress that in dealing with aspects of vocabulary selection and grading, it is required to make use of the corpus-based approach that allows teachers, course designers, and materials writers to select and grade the most frequent items so it replies to the learners' goals precisely.

In summary, the corpus is a basic tool that is used for any kind of research on language. It is useful in their language research, pedagogy, and translation. Writers emphasize the usefulness of concordances for vocabulary and grammar development because it facilitates the use of authentic language, makes students more active and independent analyzers of language, and provides empirical evidence about language use (Johns, 1986, Taylor, 1991; Hanson-Smith, 1993; Johns, 1994; Aston, 1995; Qiao and Sussex, 1996 and Cobb, 1997).

2.4 Computer Assisted-Language Learning

There are many advantages of CALL for students. First of all, it allows learners to involve themselves in authentic tasks with authentic audiences through the Internet. They can also interact to negotiate meaning and produce a variety of target language. Students with limited time for studying can access CALL materials at their own convenience, when a computer is accessible. Generally, students have different styles of learning, and the computer makes it possible for them to manage their own learning process since they can arrange the time and topics to study. With the computer, the distance between teachers and students is no longer a problem. This is

because the computer is capable of keeping students' performance so that teachers can make use of the recorded data to analyze students' learning problems and can respond rapidly and accurately to an individual's problems. In the traditional classroom, students have to wait for teachers' responses because there are normally many students under the responsibility of only one language teacher. Unlike the traditional class, the computer can provide an immediate response to students, so they feel they get attention from the computer, and consequently, they concentrate more on the learning process. In addition, some activities in CALL programs can stimulate group interaction or group discussion with only a single computer.

Developing CALL programs needs three areas of knowledge: the target subject knowledge, pedagogical knowledge and computing skills.

The first four items were suggested by Ahmad (1985: 8-9), and the last one was proposed by Sergeant (2001: 240). It can be seen that solutions to the problems in CALL development relate closely to collaboration between specialists, teacher development, software developments and the student factor. Moreover, it is suggested that CALL is most effective when integrated with classroom learning. Some passive exercises should be replaced by interactive CALL activities; classroom time will be effectively spent on other communicative activities. Furthermore, the decrease in price of new technologies, an increasing number of distance students, and the idea of lifelong learning are among the reasons to support technology-based teaching (Curran, 1998). The entire CALL course may be possible for distance learning or in the case that there are not enough language teachers. However, CALL can be best used as a part of the course, possibly a module, but it must be followed by some interactive types of classroom activities, although natural human synchronized

interaction is possible in CALL programs with an Internet connection. CALL can also be used to promote group interaction with a group of learners doing a CALL activity on a single computer (Ariew & Frommer, 1987: 183-185; Young, 1988).

The capacities of computers in combining tutorial, interactive, and visual teaching frequently bring about a positive effect on learners' motivation (Kenning and Kenning, 1983). Thus, this study aims to take the above learner motivation theories and the advantages of computer to form an effective, pedagogic-based multimedia program to help learners learn about job interviews by stimulating their motivation in order to support their learning.

2.4.1 Evaluating CALL activities

CALL activities can be evaluated in many ways. Some scholars mentioned the factors should be considered when evaluating CALL.

Chapelle (2002) suggested that in developing CALL activities, four factors should be considered, namely task goals, learners' activities, software design, and the number and role of learners. Moreover, CALL programs must be judged on their own specific situations and the theory that they are based on. Thus, six standards for evaluating CALL activities are now suggested namely language learning potential, learner fit, meaning focus, authenticity, positive impact, and practicality.

Although these six standards are current, they are very broad ideas, and there is a more elaborate and structured evaluating approach, the Structural Evaluation Procedure of Criswell (1989). This evaluating procedure consists of 11 aspects of evaluation. They are general identifying information, functional effectiveness, courseware objectives, text displays, graphic displays, performance records, overview sequences, specific frame evaluation, learning principles, and acquisition interactions.

Criswell's evaluating procedure, together with the six standards for CALL evaluation of Chapelle, were adapted to evaluate the CALL program of this study.

To conclude, the evaluation of CALL should include information, functional effectiveness, courseware objectives, text displays, graphic displays, performance records, overview sequences, specific frame evaluations, learning principles, and acquisition interactions.

2.5 Related research studies

2.5.1 Related research on CALL devoted to vocabulary learning

Numerous related research studies on CALL devoted to vocabulary learning have been conducted. The previous research studies are presented in Table 2.2 below.

Table 2.2 Related researches on CALL devoted to vocabulary learning

Researcher	Subjects	Focus of the study	Findings
Zhang, Xia (1992)	University students	To the design, development, implementation and evaluation of Vocabulary Through Context-VTC, a tutorial Computer Aided Language Instruction (CALI) software package.	The program presents vocabulary in context, and evaluates students' responses. Students' performance improved on the average in a pre-test versus post-test evaluation after using VTC to learn vocabulary through context.
Knight (1994)	College intermediate-level Spanish learners	Used a computerized dictionary in a study on incidental vocabulary learning from context and the effect of dictionary access on reading comprehension	From the results of vocabulary tests and recall tests, Knight found that high verbal ability students learnt more words than low verbal ability students, and students who used a dictionary learnt more

Researcher	Subjects	Focus of the study	Findings
			<p>than those who did not.</p> <p>She concluded that low verbal ability students are more dependent on vocabulary knowledge than high verbal ability students.</p>
Kang (1995)	Conducted a study with elementary school students who had basic knowledge of the English alphabet and sentence structure.	The instructional methods used for vocabulary learning were: "Paper and Pencil (P&P), Computer-based Word-for-word (CW), Computer-based word-for-word plus Picture (CP), and Computer-based Context (CC)" (p. 46)	The results showed that the group treated by the computer-based context method performed significantly better than any other group in a retention test. This suggests that the presentation of vocabulary with visual, aural and sentence contexts in computer-assisted learning environments would enhance vocabulary learning and teaching.
Chun and Plass (1996)	Second-year students of German at three universities	Studies of the effectiveness of multimedia annotations on vocabulary acquisition.	The results showed a higher rate of incidental learning of vocabulary and significantly higher scores for words that were annotated with pictures and text than for those with video and text or text only.
Fox (2000)	University students	Looks at some examples of Computer-Assisted Learning (CAL) used for vocabulary learning. Two approaches are discussed: (1)	The discussion section considers both some of the advantages of CAL for EFL vocabulary learning and some of the problems of using it effectively and integrating it successfully

Researcher	Subjects	Focus of the study	Findings
		<p>uncontextualized CAL, requiring one-word answers; (2) contextualized forms of practice, for example those in which the learner has to unscramble or rebuild a text.</p>	<p>into a total teaching program.</p>
<p>Julie Wood (2001)</p>	<p>Analysis of 16 software products, designed for students in third to fifth grade</p>	<p>Reviewed software products designed for elementary grade students -- those products that make explicit claims about developing students' lexical knowledge and those that do not. The study also examines the potential of technology (e.g., hypertext, animations) to enhance vocabulary learning.</p>	<p>Findings indicated that many products that made no explicit claims about fostering vocabulary learning, in fact, incorporated more guidelines than many that made explicit claims. Those in the latter group often merely varied a drill and practice routine rather than helping students <i>really know</i> a word. Findings also indicated that the potential of technology to help students understand word meanings has yet to be fully exploited.</p>
<p>Marlise Horst (2005)</p>	<p>University students</p>	<p>Purpose-built on-line tools for vocabulary learning in an experimental ESL course. The resources included a concordance, dictionary, cloze-builder, hypertext, and a database with interactive self-quizzing feature</p>	<p>Connections were made between use of specific computer tools and gains.</p>

Researcher	Subjects	Focus of the study	Findings
Kaya, Tadayoshi (2006)	145 Japanese university students	To create a computer application embedded with two types of learning-style based materials for English vocabulary learning and to examine the effectiveness of computerized material adjustments according to learning styles	The results showed no significant differences in vocabulary achievement between the matched and non-matched groups in both materials. Also, there were no significant differences on the learning behavior between the two groups. These results indicated that the learning-style based matching was not effective and did not create a better learning environment for the Japanese participants in the matched groups. However, it was found that both of the materials which included various learning-style elements were suitable for most of the participants, and facilitated their vocabulary retention rates regardless of their learning style.
Ma, Qing; Kelly, Peter (2006)	Chinese university students	Focuses on the design and evaluation of the computer-assisted vocabulary learning (CAVL) software WUFUN. It draws on the current research findings of vocabulary acquisition and CALL, aiming to help Chinese university students to improve their	It is argued that vocabulary should be learned explicitly as well as implicitly; learners need to be trained to become good learners, e.g., by being instructed in useful learning strategies, to enable them to learn vocabulary more efficiently and effectively. A design model of CALL efficacy is constructed to ensure

Researcher	Subjects	Focus of the study	Findings
		learning of English vocabulary	the quality of vocabulary learning in CALL programs; it is employed in the design of the software WUFUN. Finally, the preliminary results of the software evaluation are reported and discussed. (Contains 4 figures, 11 tables, and 7 notes)
Thomas Michael (2008)	High-intermediate/low-advanced Spanish students	An exploratory study investigating the difference in the incidental vocabulary learning (or recall) of Spanish vocabulary while reading for comprehension using computer-assisted language learning (CALL) glosses.	The results were ultimately inconclusive, but indicated that there was no significant difference between word recall and gloss presentation, and that gloss access is to some extent positively related to language proficiency.

From the Table2.2, it can be concluded that most of the aforementioned research studies, for example, Chun and Plass (1996a) , Groot (2000), [Ma, Qing](#); [Kelly, Peter](#) (2006) Joseph, Samuel R H (2009), Zhang, Xia (1992), Kaya, Tadayoshi (2006), Arika L (2006) studied the effectiveness of vocabulary programs or software. All of them used the pre-test and post test, CALL, questionnaire and interview studying the effectiveness.

The subjects mostly were university (Zhang, Xia ,1992; Chun and Plass ,1996; Marlise Horst,2005; [Ma, Qing](#); [Kelly, Peter](#) ,2006) or college students (Knight,1994), and then no specific educational level, respectively.

The suggestions from reviewing the previous research on constructing software programs or other CALL related to vocabulary learning, demonstrated that the selection of words included in the CALL should take into consideration the frequency of words by using the source of corpus, content in the classroom, and everyday life. Implicit and explicit learning should be included. Computerized dictionaries should be considered as a good tool for helping students to learn and search for the meaning of words. These findings from previous studies were included in the design of the BVLP.

It can be concluded that most research studies above studied the effectiveness of vocabulary programs or softwares. The subjects of the studies are mostly focused on the high school, college, and university students, not on the Business English major students. It has not been found that the construction of Business English vocabulary learning program using the news section has appeared in the previous research.

2.5.2 Related research on Corpus-based study

The related research on corpus –based study is presented in Table 2.3 below.

Table 2.3 Related researches on Corpus-based study

Researcher	Focus of the study	Findings
Flowerdew (1993)	Designed a corpus by collecting Biology lecture texts used to teach English for Biology undergraduates	He reasoned that the larger general corpora such as Cobuild did not focus on biology words and structure frequencies.
Zanettin (1994)	Focuses on the use of concordancing software on bilingual	Concordancing programs "can be run by students at any time in a self-access environment, provided that instructional

Researcher	Focus of the study	Findings
	English/Italian parallel subcorpora to design language activities aimed at developing translation	sheets explaining the background for the activity are supplied”
Sutarsyah, Nation & Kennedy (1994)	Conducted the research on how useful is EAP vocabulary for ESP. The study compares the vocabulary of a single economics text of almost 300,000 running words with the vocabulary of a corpus of similar length made up of variety of academic texts.	It was found that the general academic corpus used a very much larger vocabulary than the more focused economic text. A small number of words that were closely related to the topic of the text occurred with very high frequency in the economic text. The general academic corpus had a very large number of low frequency words. Beyond the words in West’s General Service List and the University Word List, there was little overlap between the vocabularies of the two corpora. This indicates that as far as vocabulary is concerned, EAP courses that go beyond the high frequency academic vocabulary are of little value for learners with specific purpose.
Chaiwat Kaewphanngam (2000)	To collect a corpus of psychology texts in order to identify high frequency technical and sub-technical vocabulary, 2) to examine the contexts	Results revealed that most of the frequent words were function words and content words which were highly topic-related to the subject of psychology. The parts of speech, uses and meanings of the search words could be investigated by applying concordance analysis. The vocabulary test

Researcher	Focus of the study	Findings
	<p>in which technical and sub-technical vocabulary occur in the corpus, and 3) to investigate psychology students' comprehension of technical and sub-technical vocabulary as a basis for decisions concerning future material design</p>	<p>showed that psychology students performed better in sub-technical vocabulary than in technical vocabulary. First year and third year students obtained significantly different scores on the whole test. There was a high correlation coefficient of technical and sub-technical vocabulary. These findings suggest the frequency lists of vocabulary and the analysis of concordance lines should be used as a resource of future EAP materials development. The frequency data should be taken into consideration when grading and selecting practical vocabulary</p>
Oupra(2000)	<p>Conducted using the corpus-based methodology; focuses on vocabulary knowledge within specific subjects of the learner's field of study.</p>	<p>Conducted using the corpus-based methodology; focuses on vocabulary knowledge within specific subjects of the learner's field of study.</p>
Poonpon (2002)	<p>Investigated the vocabulary input of English language class Materials for first and second year science students from Mahidol University</p>	<p>Investigated the vocabulary input of English language class Materials for first and second year science students from Mahidol University and Khon Kaen University in the 2001-2002 academic years. Her objective was to determine the English vocabulary that science students</p>

Researcher	Focus of the study	Findings
	<p>and Khon Kaen University in the 2001-2002 academic years. Her objective was to determine the English vocabulary that science students were taught at the tertiary level. The study used a total vocabulary input of 317,673 words. The results showed that words from the General Service List covered around 80% of all corpora and occurred most often in the teaching and learning materials.</p>	<p>were taught at the tertiary level. The study used a total vocabulary input of 317,673 words. The results showed that words from the General Service List covered around 80% of all corpora and occurred most often in the teaching and learning materials.</p>
<p>Kaewphanngam, Broughton, and Soranasataporn (2002)</p>	<p>Undergraduate students majoring in Psychology at the Department of Psychology and Guidance, Faculty of Education, Silpakorn University.</p>	<p>Constructed a specialized corpus of psychology texts to serve undergraduate students majoring in Psychology at the Department of Psychology and Guidance, Faculty of Education, Silpakorn University. Three main fields of psychology were studied, namely Counseling Psychology, Educational Psychology and Social Psychology. The content words in a general corpus and the</p>

Researcher	Focus of the study	Findings
		specialist corpus were compared.
Para (2004)	<p>Corpus study of high-frequency words in civil engineering research articles : subdisciplinary differences between structure and transportation. The purpose of this corpus study was to investigate and analyze research articles in two sub disciplines of civil engineering: Structure Engineering (SE) and Transportation Engineering (TE) by examining high-frequency content words and their collocations</p>	<p>This study indicated that in text coverage, the general words and the academic words found in this study covered similar percentages to those of the GSL and the AWL, respectively. That is the text coverage of the general words accounted for 72.54%, while that of the GSL covered from 78.10 % to 80.00 %, as reported by Bauman and Culligan (1995). The text coverage of the academic words was 12.46%, whereas that of the AWL was 10.00%, presented by Coxhead (2000). The text coverage of the third group the outside node words was 15%. There were 16 and 19 high-frequency content words found in SE and in TE research articles, respectively, and their collocates were mostly found in three categories : verbs, nouns or noun phrases, and adjectives. Two nodes also appeared in both SE and TE texts: coefficient and peak. Both nodes shared the same meanings but related to different collocates within a span of ± 5 between SE and TE texts employed in the present study.</p>

Most of the research studies on corpora as mentioned above studied the analysis of words occurring in various fields of other corpus, using corpus and BNC analysis applied to design a vocabulary program, hasn't been used before.

According to the related studies mentioned above, it is found that there are still research gaps as follows:

- a. Very little research has been done in designing the corpus-based business vocabulary learning program for Thai Business English majors.
- b. Very little research has been done in choosing the target words from the national English newspaper to construct the business news corpus as the main target words selection to be included in the vocabulary learning program for Thai Business English majors.
- c. Very little research has been done in mixing the overlapped words occurring in the business news corpus and words occurring in the BNC as target words included in the vocabulary program for Thai business English majors.
- d. Very little research has been done in designing CALL programs related to business vocabulary supplements for Thai Business English majors.

Therefore, the present study will be conducted in order to help the Business English majors improve their vocabulary knowledge.

It has not been found that the construction of business vocabulary learning program using the news section has appeared in the previous research. Furthermore, the corpus study emphasizes the analysis of words occurring in various fields of other

corpus, using corpus and BNC analysis applied to design a vocabulary program, hasn't been used before.

Therefore, the design of the Business vocabulary learning program is one way to solve the problem of vocabulary and improve the vocabulary knowledge for Business English majors.

2.6 Theoretical framework of the present study

As mentioned above, it can be concluded that the main keys related to the theoretical framework of the present study were constructivism theory, second language acquisition theory, vocabulary learning and teaching theory including the corpus-based BNC, and learners' actions, as shown in figure 2.1.

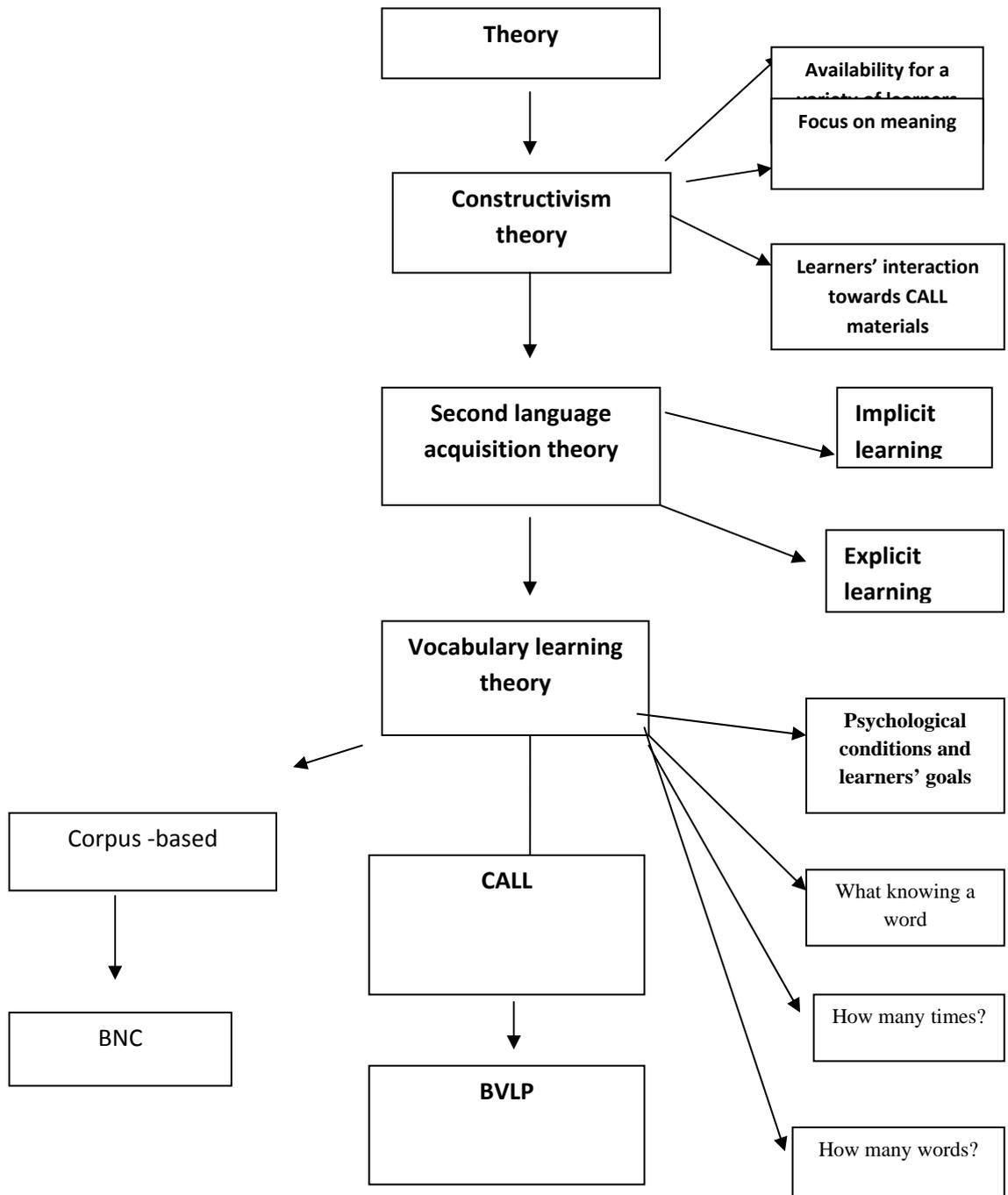


Figure 2.1 The theoretical framework of the present study

Theories adapted as the main basis to design the BVLP in the present study mainly refer to constructivism theory, second language acquisition theory, and vocabulary teaching and learning theory. They will be presented in details below.

The design of the BVLP is focused basically on the Constructivism theory. Constructivism theory can be applied in this design can be defined that an availability learning activities for a variety of learners, focus on meaning and learners' interaction towards CALL materials. The learning based on constructivism principles can provide learners with an opportunity to tap into resources and acquire knowledge rather than force them to passively act as recipients of instruction, the way they are treated in the traditional teaching environment. From the review of the constructivism theory, this research takes a constructivist approach as this best represents the complex learning environment, and creates learning materials in the form of a Business Vocabulary Learning Program through CALL in an attempt to meet those learning environment demands. It supports the belief that learners are not passive but are actually very active in the learning process. They do come to the classroom with different backgrounds so each learner interacts with learning differently depending on the backgrounds that they have accumulated. The BVLP is not static, universal and nicely packaged to be ready to be delivered or transferred to them. It is actually very individual and generalized through verification by interactions with others. Teachers should not control or direct how learners learn. They should provide learners with an environment that represents the complexity of the real world and allow them to interact with vocabulary in a variety of activities.

Second language acquisition theory relates to a combination of both IMPLICIT and EXPLICIT vocabulary learning approaches is evidenced to be

superior to either direct or indirect vocabulary learning alone. Both types of vocabulary learning approaches improve learners' language abilities, and thus should be emphasized in FL learning, so that language learners know how to maximize the effectiveness of learning, using, coping with and storing newly-learned vocabulary on their own.

Principles of vocabulary learning were considered as the main theoretical adaptation in the BVLP design. The principles of vocabulary learning were related to the objectives of vocabulary learning, how many new words students are to learn, and how many new words EFL students have to learn at a time. In learning vocabulary, students scholars in this field all share some common goals, i.e. to assist and guide students in how to learn, retain, and use words. In terms of word forms, students have to focus on how to pronounce and spell words correctly and clearly. For word meaning, they need to learn how to discover and retain word meanings. Based on word use, students need to know how to practice or use them to express their real thoughts, ideas and feelings in a wide range of appropriate situations (Ooi and Lee, 1996; Aebersold and Field, 1997; Baker and Westrup, 2000; Krashen and Terrell, 2000). All of these common goals were included in the BVLP. In this present study, the quantity of words needed more than 3000-5000 words are considered in the design of the BVLP when considering choosing words from the BNC. Students should learn approximately 5-10 new words per lesson (Nation and Waring, 1996; Allen, 1983; Laufer, 1992; Nation, 1990). Therefore, in the design of the BVLP, 10 target words were included in each package. In the BVLP design, 7 -10 repetitions of words were included in order to make sure that the learners can see these target words 7 -10 times to remember the words in each package. Vocabulary teaching theory relates to a

corpus-based approach and the BNC which were used as a main basis for vocabulary selection included in the BVLP.

2.7 Summary

The main purposes of the present study are to design the Business Vocabulary learning program and to determine its effectiveness. Therefore, the related literature, previous research studies concerned with the present study focusing on constructivism theory, second language acquisition, vocabulary learning and teaching, corpus-based approaches, and learners' actions were described.

CHAPTER 3

Research Methodology

This chapter provides an overview of how the present study was conducted. It is divided into five main parts: the participants, the research design, the research instruments, the data collection, and the data analysis.

3.1 The Participants

Forty-six students who enrolled in the course 422433 English for Mass Media in their fourth year were selected by the purposive sampling method to serve as the experimental group. This group was the 100 target words using the constructed BVLP for 10 weeks.

The Business English majors were selected as the sample group in this research because they were halfway to completing their degree and mature enough to see how participating in the study could better prepare them for the job market.

3.2 Research Design

Since the main purposes of the present study were to design a Business Vocabulary Learning Program and determine its effectiveness. Three main steps were involved in constructing the BVLP: (a) selecting and determining the target vocabulary lists, (b) designing BVLP lessons, and (c) piloting Business Vocabulary Learning Program.

3.2.1 Selecting the target vocabulary

The followings are the necessary steps involved in identifying the target words recommended for the Business English majors.

A. Choose the Source of Data for the Corpus

The source of data for the corpus analysis is the business news passages available in the Business News section of *The Nation* during the period of one month from March 13 to April 13, 2007. The total number of the news passages is 420 in the variety of business topics: general business, regional business, consumer issues, marketing, finance, investment, tourism, trade and so on. The total number of tokens or running words is altogether 238,558.

The Nation was used as the source of both the corpus and the target words included in the Business Vocabulary Learning Program. *The Nation* was chosen for following reasons:

- a) *The Nation* is a daily newspaper owned by The Nation Multimedia Group. The business section appears in the newspapers every weekday. *The Nation* is made available via the Internet on the website: <http://www.nationmultimedia.com/> and in printed texts. *The Nation* is easily available through the Internet on website: <http://www.The Nation.com/> for subscribers. Subscribers are allowed to retrieve back issue news.
- b) This newspaper is convenient to access. For example it is easily found in bookstores, on flights, on the Internet, and in the main libraries of educational institutes.
- c) This is a potentially valuable source, which includes written works of various non-native and native writers who are selected by editors.

- d) The newspaper provides a rich set of business information written by a large number of writers.
- e) It provides business information in English in many and varied aspects, and is thus considered representative of a wider spectrum of English newspapers and magazines published in Thailand. It also reports on events occurring in Thai contexts and situations in Thailand, which the students are quite familiar with.
- f) From the preliminary investigation of this study, the materials mostly used in business English courses are taken from the local English newspapers. The section relevant to the students and teachers in the Business English is on-line business news section in the Nation.

For all the reasons above, the purposive sample of this corpus included a total occurrence of 238,558 words distributed in 420 news passages. The amount of total words about 238,558 occurrences is adequate. As Biber (1990) mentioned, little empirical work has been done to determine how big is big enough, but one investigation has found that 1000-word samples, with ten different texts used to represent a category of text, are useful.

B. Make a list of the most frequently found words in the Business news section of *The Nation*.

The concordancing software called “*WordSmith Tools Version 4*” was selected for this study. This is an integrated suite of programs for studying how words behave in texts. It was used to learn how words behave in any kind of texts. WordSmith Tools was used by Oxford University Press for organizing their own

lexicographic work of dictionaries in –text –citation, by language teachers and students, and by researchers looking into language patterns in lots of different languages in many countries worldwide.

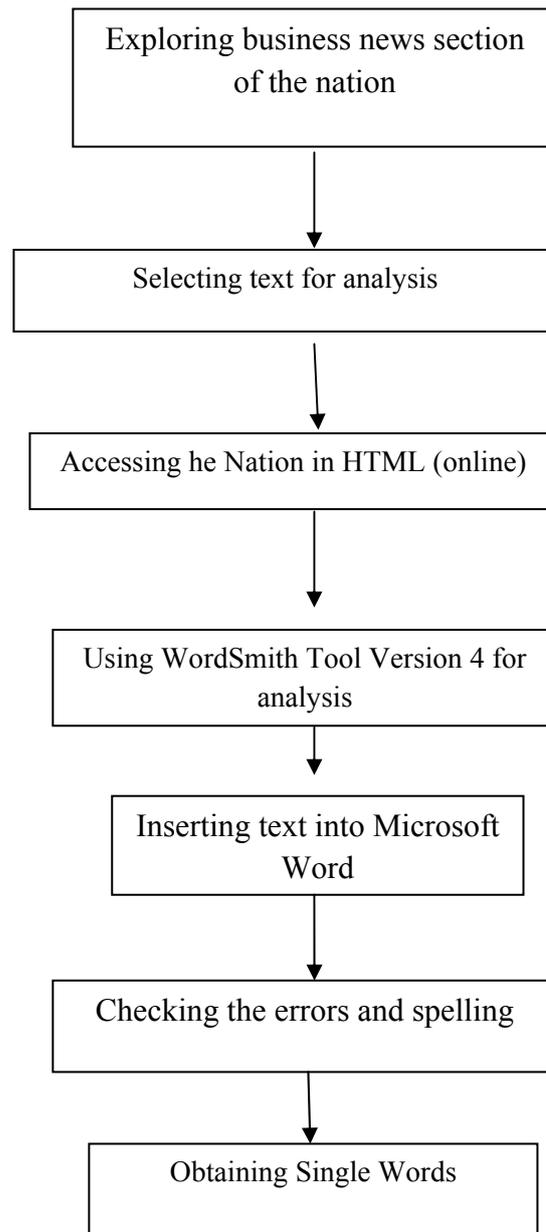


Figure 3.1 Procedures of Corpus Construction

According to : Figure3.1, to explore the use of words and their occurrences in the business news section of *The Nation*, firstly, the data was collected from the Business News section of The Nation, March 13 to April 13, 2007. Next, only Business News passages from the Internet were stored into computer. These texts were split into files of Nation.txt. Then, the selected 420 news articles from the two newspapers were saved in a text file as newspapers.txt, and the total number of the mini corpus was 238,558 words. After that, the errors in language were checked, edited and deleted before carrying out the analysis. Then, the WordSmith Tools Version 4 (Scott, 1996) was selected for analysis of the corpus. The Concord tool was used to create concordances (lists of words in context). After the word was keyed into the program, the Concord tool displayed word lists and graphical maps showing where the word occurred in the corpus. Then, occurrences of each single word appearing in the concord file were chosen. The frequency of each word was checked for accurate counting.

After the construction of the business news corpus had been conducted, the high-frequency words occurring in the business news corpus were obtained ,4,375 content words appearing in the corpus at least 23 times were selected, and listed separately those words which occurred at least 50 times or 100 times per million words (Thorndike, 1944). According to Conrad (Personal Communication, September 23, 2007), “the appropriate number of high frequency word chosen that there are no absolute answers to the questions about frequency, the important thing is that you can make the argument that whatever frequency cut-off is reasonable and the exact number will depend on how many texts you have; the basic principle is that you want to make sure the words you include are used by many writers across many different texts rather than being extremely common in just a few texts”.

C. Used the British National Corpus (BNC) to identify the most frequently found everyday life words:

The purpose of using the British National Corpus (BNC) was to compare the words in the Business news corpus with the words in the BNC to identify the words found in everyday life.

The words in the files are categorized in the written part of the British National Corpus (BNC), which is “a 100 million word collection of samples of written and spoken language from a wide range of sources, designed to represent a wide cross-section of British English from the later part of the 20th century, both spoken and written” (University of Oxford, 2005). The written part of the BNC (90%) is, for instance, “extracts from regional and national newspapers, specialist periodicals and journals for all ages and interests, academic books and popular fiction, published and unpublished letters and memoranda, school and university essays, among many other kinds of text. The spoken part (10%) includes a large amount of unscripted informal conversation, recorded by volunteers selected from different age groups, regions and social classes in a demographically balanced way, together with spoken language collected in all kinds of different contexts, ranging from formal business or government meetings to radio shows and phone-ins”.

The procedures of the construction of the British National Corpus (BNC) were undertaken from the following steps. The word lists are freely downloadable from <http://www.victoria.ac.nz/lals/staff/Paul-nation/nation.aspx> and <http://lextutor.ca/vp/bnc/nation14/>. The former webpage provides the word lists that come with the RANGE program. The latter one presents the word lists as alternative word lists for language teachers and researchers who want to analyze LFP Lexical

frequency profile or to break texts down by word frequencies based on the BNC (Cobb, 2006). These word lists are used in Cobb (2007) in order to investigate the vocabulary demands of L20 reading by analyzing LFP and in Nation (2007) to construct a receptive vocabulary size test.

These word lists are categorized and counted based on word families because “learners beyond a minimal proficiency level have some control of word building devices and are able to see that there is both a formal and a meaning relationship between regularly affixed members of a word family” (Nation, 2007). There is also some evidence that the word family is a psychologically real unit (Nagy, Anderson, Schommer, Scott and Stallman, 1989; Bertram, Baayen and Schreuder, 2000; Bertram, Laine and Virkkala, 2000).

The lists are made to run in the RANGE program. In order to analyze LFP by RANGE, use Paul Nation’s website at <http://www.vuw.ac.nz/lals/staff/paulnation/nation.aspx> in order to download the program. It was found that there were 2,170 words in the BNC.

D. Identified: the overlapping words from the BNC and Business news corpus

4,375 words found in the business news corpus were compared with the 2,170 words found in the BNC; it has been found that there were 890 words which overlapped in the two corpora.

E. Words in students’ lists and teachers’ lists were selected:

Ten experienced Business English teachers and 50 Business English majors were asked to underline the 890 overlapping words that they thought were difficult for students, and that they thought students should know. It was found that there were 450

words unknown by the students and 380 words checked by the teachers. After the words were compared, it appeared that only 100 words overlapped in the three lists. Therefore, there are 100 words that overlapped in all three lists which were included in the Business Vocabulary Learning Program.

3.2.2 Making BVLP lessons

The Business Vocabulary Learning Program consisted of 10 packages. These 10 packages consisted of 100 words to be studied (See in appendix K). Each package consisted of 10 words that were presented in seven vocabulary activities. To make the BVLP lessons, the theories applied to the BVLP in each activity were presented in Table 3.1 respectively.

Table 3.1 The theories applied in the design of the BVLP

Name of activity	Purposes of the activity	Theory
1. Words study	This activity was designed to help the participants recognize 10 target words presented to be learned in each package.	The students learn a set of 10 new target 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). The words in each package were ordered alphabetically.
2. Vocabulary test	This activity was designed to check which of the target words they know and don't know.	When learning vocabulary, the learners have to measure their vocabulary knowledge first in order to know their learning progress (Read, 2000).
3. Noticing words	This activity was designed to notice 10	Noticing is the first step of vocabulary learning. This type of task is designed to

Name of activity	Purposes of the activity	Theory
	target words; students must pay attention to the unknown words.	draw the attention of learners to the target words in listening or scanning (Gass, 1985; Nation, 2001).
4.Retrieval words	This activity was designed to allow learners guess the meaning of a word from contexts; when they study a word when someone explains a word to them.	Retrieval is the second major process that may lead to vocabulary retention (Baddeley, 1990: 156 cited in Nation, 2001). Learners may initially notice a word and understand its meaning through a text during the task, or through the explanation of the teacher, or through dictionary use. Then they may memorize the word better if they retrieve that word during the task.
5.Exercises	This activity was designed for students to practice vocabulary they have learned. Matching, gap-filling, and word association were chosen to be included in the BVLP.	Exercise is regarded as explicit learning for vocabulary practice. ‘Comprehended input’ or input comprehension and the ‘recognition’ type correspond to this level. This type of task requires learners to recognize the target words and at least one of their meanings, hence, requiring only partial knowledge of learners (Gass, 1985).
6.Vocabulary test	This activity was designed to evaluate students’ progress in their vocabulary learning after finishing each package.	After learning, students have to know their learning progress to gain feedback after learning (Nation, 2001; Schmitt, 1994).

Name of activity	Purposes of the activity	Theory
7.Vocabulary board	This activity was designed to allow students to have interaction with teachers and friends while learning.	Constructivism theory (having active learning, collaborative learning, knowledge transferring from person to person and interaction) (McInerney, 2002).

Each package of the Business Vocabulary Learning Program was intended for one week study inside the classroom. The students spend about one hour studying BVLP. So there were, in all, 10 weeks spent studying 100 words per semester.

Each package of BVLP included:

- 1) Word Study
- 2) Evaluate Yourself
- 3) Noticing Words
- 4) Retrieving Words
- 5) Vocabulary Exercises
- 6) Vocabulary Board
- 7) Vocabulary Test

First, this section includes the 10 word study which presented the target words to be learned in each package. In each package, the students learn a set of 10 new target words, which is an appropriate number of words per lesson, to enhance their memorization of the meaning of words (Nation, 1982, 2000; Wallace, 1984; Wodinsky & Nation, 1988). The words in each package were ordered alphabetically.

Then, the students' vocabulary evaluation was designed to check which of the target words students know or do not know before going to learn the next activity.

The next section was namely "*Noticing words*," bringing the attention of the students to 10 target words (Nation, 2001). The learners were asked to scan a word and listen for the word in short passages. When they clicked on the target words provided, the words were changed to red automatically. These words were grouped and presented based on the possibility that they would likely occur in the same or similar news passages from the corpus. This means that learners see the word appearing in each package as a useful aid for them to become familiar with the words they have to learn in each package. A preview of the words served as an 'advance organizer', a device aiming to activate useful background knowledge presented to the learner in particular contexts. The learner can view each word by scanning, each of them accompanied by a short, spoken sentence. Some of the words to be learned will appear with a red highlight in the sentences for the first time.

Then, the student moved on to study the third activity. This activity aims to retrieve the target words that occur when learners guess the meaning of a word from context, and when they study a word when someone explains it to them (Nation, 2001). Retrieval is the second major process that may lead to vocabulary retention (Baddeley, 1990:156 cited in Nation, 2001). Learners may initially notice a word and understand its meaning through a text during the task, or through the explanation of the teacher, or through dictionary use. Then they may memorize the words better if they retrieve those words during the task. Then, some vocabulary items are presented in the form of a mini dictionary including meanings, collocations, example sentences and usage. The Dictionary is also used in helping the students to understand the

meaning of words that they don't know. The use of a dictionary in helping the students understand the meaning of words has been shown to be beneficial for vocabulary learning by many studies (Aust et al., 1993; Hulstijn, [2000](#); Knight, 1994; Krantz, 1991; Krashen, 1989; Laufer & Hill, [2000](#); Luppescu & Day, 1993; Mondria & Wit-de Boer, 1991). In addition, the learner can listen to the word, view a picture if available, and ask for a Thai translation of the word.

Next are the vocabulary exercises where the words will be practiced and rehearsed. By doing exercises, the learner becomes familiar with the meaning and usage of the words. Exercises include matching words, filling word into the gap, and word association. Matching the target word with a definition or synonym presented in Exercise 1 was chosen because this type of task requires learners to recognize the target words and at least one of their meanings. Gap-filling exercises, presented in Exercise 2, were chosen because it aims to help the learners understand the meanings of the target word in context, and recognizing words that could be substituted in the gap. Words association, presented in Exercise 3, was also chosen because this exercise is claimed to involve more precise semantic and syntactic analysis, including the relationship between the target words and the other words in contexts (Gass and Paribath, 1997). After finishing each exercise the scores students obtained were calculated; feedback or grades as an aid to enhance their understanding, memorization, and use of the words was also given. For example, after they clicked to add up their scores in each section, if they get high scores, their feedback will be clicked "excellent". If their scores are low, the feedback will be "try again".

Next, the students had to evaluate themselves again after finishing all of the 5 activities in order to know their learning progress.

While learning each activity in each package, the Vocabulary Web Board presented in activity 7 was designed to allow students to consult teachers or friends while learning. They could share their ideas, and answer and discuss their problems while learning. They could share their learning.

3.2.3 Piloting of the BVLP

Before using the BVLP with the participants of the study, a pilot work of the Business Vocabulary Learning Program was administered. The pilot work was done to determine its effectiveness. There were two main stages of piloting the Business Vocabulary Learning Program. In the first stage, the problems or weak points of learning with the BVLP was investigated by ten Business English major students. In the second stage, the effectiveness of the BVLP was determined. All the three stages are presented below.

Stage 1: Ten fourth-year students majoring in Business English at the Faculty of Humanities and Social Sciences at Khon Kaen University were asked to be a pilot group of this BVLP trial. They were given the BVLP to use at home and were asked to record all problems and suggestions while learning with the program.

The resulting suggestions for the BVLP were about the content and design of the program. The revisions of the contents included correcting words, adjusting instructions, removing some exercises, adjusting the time allocation, and correcting and adjusting responses to learners' answers. The improvement made to the program of design was enlarging the font size, adding more colors and animation in the background page of each activity, and increasing the sound volume.

The results also revealed that the participants considered the BVLP should be adjusted. The instructions of activities in the program were not clear. It should be

improved to make it easier and clear for learners to understand. This included the various colors and animations, which attract the interest of the learners.

The results of the part participants' opinions on the Business Vocabulary Learning Program for revision are presented in Table 3.2 In this part, the participants were asked to rate the level of their opinions on the scale of 1-5 as follows:

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

Table 3.2 Results of the questionnaire on the participants' opinions on the development of the BVLP

Items	X-BAR	S.D.	LEVEL
1.The BVLP is easy to use.	3.6	1.51	High
2.The BVLP is attractive.	3.6	0.75	High
3.The content meets your needs.	4.0	0.38	High
4.The objectives of the BVLP are clear.	3.8	0.42	High
5.The instructions of the BVLP are clear. The readers can understand them correctly.	2.3	1.93	LOW
6. The language used in each package is clear; the user can understand and do the activities correctly.	2.4	2.04	LOW
7. The explanations of the words in English make the users understand the meaning of the words.	2.5	1.87	Moderate
8. The number of words studied 10 words a package is enough.	3.3	1.58	Moderate

Items	X-BAR	S.D.	LEVEL
9. All 4 exercises in each package are enough to make the users understand the meaning of the words precisely.	2.5	1.87	Moderate
10. The types of exercises used in each package are of various styles and are interesting.	3.2	0.70	Moderate
11. The time given for each package is appropriate.	2.5	1.87	Moderate
12. Each package is ordered from the easy lessons to the more difficult lessons.	2.8	1.87	Moderate
Total	3.65	1.61	Moderate

The results in Table 3.2 showed that the participants were moderately satisfied with the BVLP with the mean score $\bar{x} = 3.65$. The participants reported that the program is easy to use with the mean score $\bar{x} = 3.60$. They also revealed that BVLP is attractive with the mean score $\bar{x} = 3.60$.

For the content of the BVLP, the participants rated the level of their opinions as “high” that the content meets their needs with the mean score $\bar{x} = 4.00$. They also agreed that the objectives of the BVLP are clear with the mean score $\bar{x} = 3.80$.

However, the participants rated as “moderate” the appropriateness of the types of exercises, the number of exercises included in the BVLP, and the time given for each package with mean scores of 3.20, 2.50 and 2.50, respectively. The participants revealed that they rated as “low” the unclear instructions and language used included in the BVLP with mean scores of $\bar{x} = 2.30$ and 2.40, respectively.

That could be interpreted to mean that the clarity of the instructions and language used included in the BVLP should be refined.

Stage 2: An Investigation of the Effectiveness index and the Efficiency of Process and product of the BVLP was made. The examination was done in three steps of trials. The purpose of each of these three trials was to improve the BVLP to make it more effective. The subjects for the trials studied the BVLP and took the tests. The subjects' achievement scores from both exercises and tests were calculated for the efficiency of the BVLP.

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

The results of this implementation were then analyzed according to the effectiveness both the efficiency of the process and product and effectiveness index.

Table 3.3 Results of one -to -one testing (1:1) during the pilot study

Trials	Number of students	E1 (Efficiency of Process)	E2 (Efficiency of Product)	Effectiveness index (0.5)
Individual Test	3	72.00	80.00	0.66

The BVLP was tried out with three students. The first represented the group of students with the highest potential, the second was an average student, and the last was a low student. In this way the BVLP was checked to see if it met the needs of the entire target population. The results obtained were used to improve the effectiveness and the effectiveness index.

Each of these three students was selected by random purposive selection from the potential, average, and low groups of students who enrolled in 422433 (English for Mass Media Course) in the first semester of the academic year 2008. To assign students to each group, their English major average grades were calculated and then the students were divided into three groups: potential, average, and low. Then, the effectiveness and the effectiveness index were calculated.

The result of the analysis of the trials showed that the efficiency of the process and product for the Individual Test (1:1) was below the prescribed criteria of 80/80. The effectiveness and the effectiveness index figures of the revised program were only 72/80 and 0.66, respectively. The participants revealed that the content, time given, font, language used, and instructions should be adjusted. This could be explained by the idea that the content, time given, font, language used, and instruction did not cover the learning goals and were not appropriate to participants' learning. According to the participants' opinions and feedback from them, the participants required more explanation of the instructions; language used, and time allocation. Therefore, the program was revised. After the first revision was made, the updated program was given to the nine users again for the second trial in order to find more things to improve based on the suggestions from the first trial.

Table 3.4 Results of Small Group Testing (1:10) during the pilot study

Trials	Number of students	E1 (Efficiency of Process)	E2 (Efficiency of Product)	Effectiveness index (0.5)
A Small Group Test	9	70.25	73.95	0.61

After the results of the sample group one –to- one testing (1:1) were revised to improve the program, the small group testing (1:10) was then tried out with a nine more students in order to improve the program. Three students from each group, potential, average and low, were selected by random purposive selection. The results of the small group test showed that the effectiveness and the effectiveness index were 70.25/73.95 and 0.61, respectively. The effectiveness and the effectiveness index still needed to be improved to meet the criteria of 80/80. This could show that the programs still needed to be revised. The researcher cut some exercises and modified others, and modified, as well, content, instruction and picture and font, as well as translating into Thai some vocabulary activities commented on by the participants. After the second revision was made, the updated program was given to the thirty users again for the third trial in order to find more things to improve based on the suggestions of the first and second trial.

Table 3.5 Results of Field Group Testing (1:100) during the pilot study

Trials	Number of student	E1 (Efficiency of Process)	E2 (Efficiency of Product)	Effectiveness index (0.5)
The Field Study Test	30	80.00	83.25	0.65

The developed program was revised again based on the comments of the small group testing in order to further refine the effectiveness and effectiveness index of the BVLP. The revised program was then tried out again with 30 students. Ten students were chosen from each assigned group (potential, average and low) and the subsequent effectiveness and effectiveness index figures were 80/83 and 0.65 respectively, which were higher than the standard criteria of 80/80 and 0.5 respectively based on the standard criteria stated in Goodman, Fletchers and Schneider (1980). After revising the program based on the results

of the second test, it was given to the thirty users again. This time they were happy with the contents and the designed program; this ended the process of the trial.

In conclusion, to administer the pilot study of the BVLP, the evaluation of the efficiency of the BVLP was conducted as shown in the following figure.

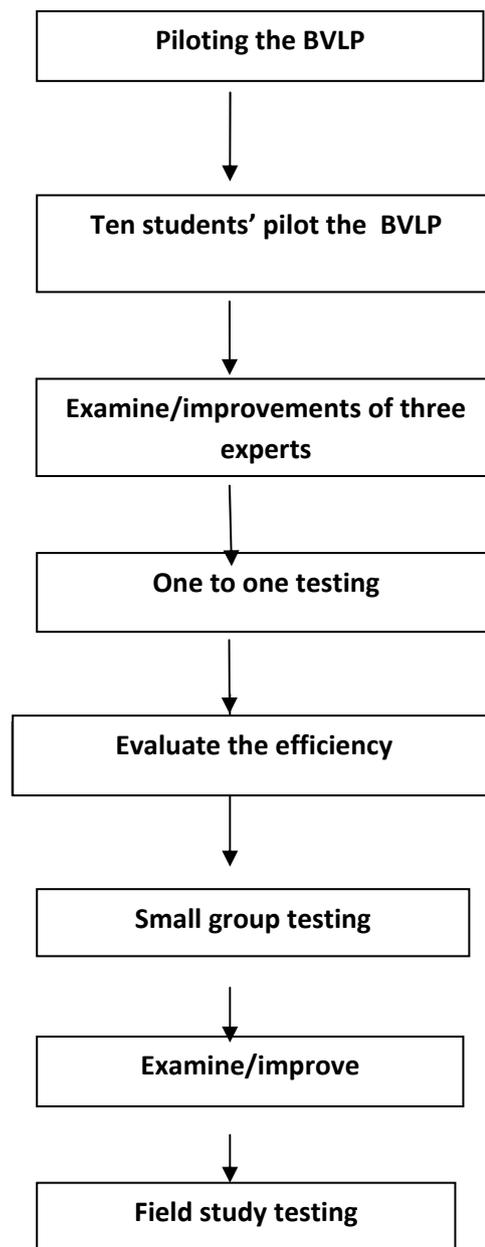


Figure 3.2 The piloting BVLP

3.3 Research instruments

The research instruments used in the present study were the pre- and post-vocabulary translation tests, the questionnaires, and the semi-structured interviews.

Table 3.6 Research instruments and research questions

Instruments	Research question
1. The pre vocabulary translation tests 2. The post vocabulary translation tests	RQ1
3. Questionnaire 1 4. Questionnaire 2	RQ2,3
5. Semi-structured interview	RQ2,3

3.3.1 The pre- and post vocabulary translation tests

The purpose of constructing the pre vocabulary translation test is to establish a baseline, and that of the post vocabulary 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 Program.

The translation tests were used as pre- and post-test in order to test the students' vocabulary knowledge. The translation test is claimed to test the ability to recognize the target words and understand their meanings (Beeckmans, Eyckmans, Janssens, Dufranne, & Van de Valde, 2007). It consisted of the target words and pseudowords, or words that do not exist.

The instrument used for testing vocabulary knowledge was the vocabulary translation test. The vocabulary translation test was constructed by randomly selecting

100 target words students learned in the BVLP. The task in the translation test is to translate the target words into English or Thai. An answer key was provided based on six dictionaries, which are Oxford Advanced Learner's Dictionary (Cowie, 1989); Aksorn's Learner's Dictionary (Smith, 1992); Collins COBUILD Learner's Dictionary (Sinclair, 1996); Se-Ed's Modern English-Thai Dictionary (Thiengburanathum, 1998); The Oxford Pocket School Dictionary (Hawkins, 1999) and English-Thai Dictionary (Sethaputra, 2003).

It was constructed by asking 46 undergraduates Business English majors in the Faculty of Humanities and Social Sciences at Khon Kaen University, Thailand, to give the meaning of 100 words which were unknown by most participants.

3.3.1.1 The construction of the pre- and post translation

vocabulary tests

The pre- and post- vocabulary translation tests were constructed as follows:

- a) 100 words were selected from the target words which overlapped in all three lists as mentioned in words selection. Therefore, the test consisted of 100 target words.
- b) The researcher developed a translation test with 100 items.
- c) The test was sent to experts who were academically qualified, so the content validity could be checked. The content was adjusted according to their advice.
- d) A pilot study was conducted with 30 fourth-year students who were not the sample in this study at Khon Kaen University. They were asked to be volunteers to participate in this study. When a

translation test was administered, each participant was asked to complete the translation test. They gave the meaning of each word either in Thai or English. They were not allowed to use any dictionaries. The participants spent one hour and forty minutes taking the tests.

- e) 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. The reliability of the translation tests in the pilot work ranged from 0.955 to 0.968, which was higher, as shown in Table 14. This means that the tests all have high reliability.

Table 3.7 Alpha Coefficients (α) for the translation Tests

Translation tests	Numbers of Participants	α
Pre-test	30	0.966
Post-test	30	0.923

3.3.2 The questionnaires

There were two questionnaires used in this study.

The first questionnaire was designed to find the effectiveness of the Business Vocabulary Learning Program, asking what students think about the Business Vocabulary Learning Program. The data was generated to answer research question1.

The second questionnaire was designed to find the opinions of the Business English major students on their vocabulary improvement after learning the target

words through the Business Vocabulary Learning Program. The data was generated to answer research question 3.

The questionnaire consisted of three main parts. The first part asked about students' general information. The second part aimed at eliciting students' opinions about their vocabulary learning development via the BVLP. To measure, a Likert's scale was used. Likert's scale has five categories and each scale consists of a statement and the two parts: a declarative statement and a list of responses categories ranging from "strongly agree" to "strongly disagree". All scale categories were labeled.

The questionnaires in the second and third parts contained ten items. The Five-point rating scales used for the students' opinions are as follows:

5	=	Strongly Agree
4	=	Agree
3	=	Neutral
2	=	Disagree
1	=	Strongly Disagree

Regarding the Likert's scale method, the first and second questionnaires were constructed according to the following steps.

- a) The researcher studied the literature on how to construct the questionnaire.
- b) The researcher constructed the statements based on the issues related to the objective outcome of vocabulary development via learning the BVLP.
- c) All of the statements were examined by experts for contents and validity.
- d) The statements or items were tried out with 30 samples for item analysis.

- e) The items were calculated for discrimination using the T-test. The items which had discrimination indexes of more than the 1.75 value were chosen.
- f) Ten items were chosen to be part of the questionnaire and these items were tried out again to determine their reliability.
- g) 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.

3.3.3 The semi-structured interview

The purpose of the semi-structured interview was to find out the effectiveness of the Business Vocabulary Learning Program by questioning the students' opinions in depth on their vocabulary improvement after learning with the BVLP. They were asked to express their opinions on how the BVLP helped them improve their vocabulary knowledge. The data was generated to answer research question 2 and 3.

3.3.3.1 The constructing the semi-structured interview

In collecting the qualitative data, a semi-structured interview was used in this study. A group interview with guidelines was carried out. The semi-structured interview was used as the main method in the final phase of data collection, in order to ask the participants about their opinions on their vocabulary knowledge development after learning with the BVLP.

The questions from the semi-structured interviews comprised 10 items. The researcher intended using Question No. 1 to lead and build a good relationship between the interviewer and the interviewees. It also helped build trust and confidence among the interviewees. Questions 2-10 pinpointed the good points of the students' vocabulary knowledge development. The students were asked what they had

achieved in their vocabulary knowledge development after learning with the BVLVP. The semi-structured interview for the present study was conducted through the following steps:

a) Meet students as the interviewees at KKU based on our appointment.

Arrange the time for each interviewee to be interviewed based on their preference.

b) Brief the objectives of the interview for the present investigation to the interviewees.

c) Interview them with 10 prepared questions and, with their permission, record the conversation.

d) Use the data obtained through the interview to generate ideas about the vocabulary knowledge development. The interview concentrates on each interviewee's vocabulary knowledge development based on the goals of the BVLVP. The interview questions were carefully checked by the researcher's supervisor and experts, and then were revised according to their recommendations.

e) The interview questions were piloted with Business English majors who were from the target population but not participating in the present study, in order to check that all questions were clear for the interviewees. The interview questions were translated from English into Thai so as to reduce the possibility of being misinterpreted and misunderstood by the participants, whose first language is Thai.

3.4 Data Collection

For the present study, there were four main stages of data collection, as shown in Table 3.8 below.

Table 3.8 Stages of Data Collection

Types of data collected	Time
Stage1: Word selection : construction of the corpus, BNC, the survey of Students' and ,teachers' vocabulary lists	First semester of the academic year 2007
Stage 2: The construction of the BVLP and its pilot work	Second semester of the academic year 2007
Stage 3: The intervention of learning the BVLP	First semester of academic 2008
Stage4: Questionnaires and Interview session	Second semester of academic 2008

The first stage of data collection started in the second semester of academic year 2007. The selection of words identified by the construction of the corpus, BNC, and then the survey of students and teachers' vocabulary lists were administered in order to find the overlapping words in the three groups. After the business corpus and BNC were constructed, the overlapping words obtained from both the corpus and BNC were chosen. There were only 890 overlapping words in the corpus and BNC. Then, the BE teachers were asked to tick the overlapping words that they thought the BE major students should know. Similarly, BE major students were asked to tick the words that they thought they didn't know. The 380 words to be learned were chosen by 10 experienced Business English teachers and the 450 words to be learned were selected by the 46 participants mentioned earlier. A comparison of the two lists yielded the 100 overlapping words to be mastered. This stage of data collection was conducted in the first semester of academic

year 2007 at Khon Kaen University. The five BE teachers and 30 BE major students spent about one hour ticking off the words.

As for the second stage, the construction of the BVLP was conducted during the second semester of the academic year 2007. To teach the selected 100 vocabulary words, the Business Vocabulary Learning Program was then constructed based on a theoretical framework derived from Constructivism Theory, Second Language Acquisition Theory, vocabulary learning & teaching theories, and implication of CALL. The program underwent three trials with Business English major students, was adjusted, and then was validated to ensure its quality. The final version of the BVLP was learned by the 46 participants in 10 weeks. The vocabulary pre-test and post-tests were then administered.

At the third stage, the participants, including the 46 BE major students, took the pre test in the first week of the class in order to master their vocabulary knowledge before starting to learn with the BVLP. The participants spent one hour and thirty minutes taking the pre test and post tests. The dates and times for learning with the BVLP were scheduled. The participants spent about one hour per week learning each package of the BVLP in class. They were assigned to learn all 10 packages, taking about ten hours. Before studying, they had read a student s' manual as a reference to use throughout their learning. Next, they typed their name and codes in to the computer in order to log in. Then, they were given the objectives of the BVLP.

Before learning each package of the BVLP, they did the self-test, in order to check the target words they didn't know, in order to let them show their ability and to stimulate them to study more. After that, they learned and did the vocabulary activities, including the set of exercises with the computer. Immediate feedback was

given to them throughout their learning. While doing the vocabulary activity in each package, they could share their problems while learning with the BVLP with their friends via the Vocabulary Board included in the last activity of the BVLP in order to encourage a collaborative learning among learners. At the end of each package, they took an evaluation as the posttest of the package. While studying, the researcher worked as a facilitator to help them in case they had problems.

At the fourth stage, the questionnaires and interview sessions were administered.

After they finished their learning with the BVLP, they took the post test and answered questionnaires. After that, semi-structured interviews, asking the participants about their vocabulary development while learning with the BVLP, were conducted in order to obtain deep and specific information.

The results of the pretest and posttest were used to study the vocabulary development of students and the results of the questionnaire were used to study their opinions on vocabulary development learning with the BVLP.

3.5 Data Analysis

The obtained data were divided into qualitative and quantitative data. Both of the data were analyzed as follows:

3.5.1 Quantitative Data

All data were analyzed by means of the Statistical Package of Social Sciences (SPSS).

- a) The Statistics Used for Testing the Reliability of the Questionnaire

The statistics used for determining the reliability of the questionnaire were obtained using the SPSS for the Coefficient alpha of the Cronbatch formula.

b) The Statistics Used for Interpretation of the Questionnaire

The questionnaires were analyzed by mean (X) and standard deviation (S.D.).

c) The Statistics Used for Testing the Reliability of the Pre and Post Tests

The obtained data were analyzed to determine the reliability of the test. The statistics used for finding the reliability of the tests was SPSS, the Spearman-Brown Formula.

d) The Statistics Used for Testing the Pre and Post Tests

The t-test was used to analyze the difference of pre-test and post-test scores of the samples in order to track the students' progress after learning with the BVLP.

e) The Statistics Used for Testing the Effectiveness of the Business Vocabulary Learning Program (BVLP)

The obtained data were analyzed to test the effectiveness and the effectiveness index of the BVLP. The statistics used for analyzing the effectiveness of the program included E1/E2 (the effectiveness) and E.I. (the effectiveness index).

$$E1/E2 = A \times 100$$

$$\frac{\text{—————}}{B}$$

E1/E2 = the effectiveness of the BVLP

A = the remainder of the posttest and pretest mean scores

B = the remainder of the standard criteria (80) and the mean scores of the pretest Scores

$$A = \frac{\Sigma c}{N} - \frac{\Sigma d}{N}$$

A = The remainder of the posttest and pretest mean scores

Σc = the sum of the post-test items that students got correct

Σd = the sum of the pre-test items that students got correct

N = number of the students

$$B = 80 - e$$

B = the remainder of the standard criteria (80) and the mean score of the pretest scores

E = the mean score of the pre test ($\frac{\Sigma d}{N}$)

N

The criterion for the effectiveness of the BVLP was 80 (Boonyong, 1990).

The effectiveness index (E.I.) formula was demonstrated as follows:

E.I. = $\frac{(\text{Posttest scores}) - (\text{Pretest scores})}{$

$\frac{(\text{Maximum possible scores}) - (\text{Pretest scores})}{$

A criterion of the effectiveness index is .05 and above is acceptable (Goodman, Fetcher, and Schneider 1980).

3.5.2 Qualitative data

The semi-structured interview was used as qualitative data. Content analysis was used to interpret the data obtained from the semi-structured interviews.

3.6 Summary

This chapter presents the research methodology used in the study. The main focuses of this research study are to design the Business Vocabulary Learning Program for the Business English majors and to determine the effectiveness of the Business vocabulary learning program. The research instruments used in this study comprise questionnaires, semi-structured interviews, and pre- and post-vocabulary translation tests. The data obtained from the questionnaires were analyzed into standard deviation and mean. The Paired T-test was used to calculate the test scores obtained from the pre and post tests. Semi-structured interviews were interpreted by the content analysis. The Paired T-test was used to calculate the test scores obtained from the pre and post tests. The analyses of the data are carried out by the use of the sample analysis of the variance for quantitative data from the test scores and questionnaires. Qualitative data was obtained from the interview.

The next chapter will present the results of the study.

CHAPTER 4

RESULTS OF THE STUDY AND DISCUSSIONS

This chapter presents the results of the three research questions of the present study: Research Question 1: Does the BVLP improve the Business English majors' vocabulary knowledge? ; Research Question 2: To what extent do the Business English majors, as the BVLP users, think the program helped them recognize words, understand the meanings of the words, use the words correctly, and remember the words?; and Research Question 3: How does each type of exercise in the BVLP help the Business English majors recognize the words, understand the meanings of the words, correctly use the words in business contexts, and remember the words. Discussions related to the three main research questions are presented respectively.

4.1 Findings of Research Question 1: Does the BVLP improve the Business English majors' vocabulary knowledge?

The purpose of this research question was to determine the effectiveness of the constructed BVLP; that is, whether it improved the Business English majors' vocabulary knowledge. The pre- and post- vocabulary translation tests were used as the research instruments to obtain the result of this research question. The results of this study were then analyzed both quantitatively and qualitatively.

4.1.1 Quantitative results regarding to Research Question 1:

The pre and post tests scores of the participants before and after starting BVLP were presented in Table 4.1 below.

Table 4.1 Pre and post-test scores

No	Pre-test scores	Post-test scores
1	43	68
2	48	55
3	53	70
4	53	60
5	56	72
6	59	65
7	66	75
8	47	70
9	62	83
10	46	60
11	52	81
12	49	68
13	42	44
14	72	90
15	43	68
16	48	68
17	30	72
18	57	79
19	21	63
20	64	71
21	58	82
22	60	75
23	49	78
24	41	67

No	Pre-test scores	Post-test scores
25	50	73
26	52	61
27	64	70
28	51	73
29	57	76
30	59	71
31	43	61
32	53	80
33	61	70
34	58	80
35	40	75
36	60	80
37	67	85
38	50	80
39	67	85
40	50	70
41	45	58
42	46	71
43	52	79
44	62	68
45	56	73
46	62	71
\bar{x}	51.80	71.26
SD	10.58	9.00

Table 4.1 shows that the mean score (\bar{x}) of the pre-test was 51.80 and the standard deviation was 10.58. After using the BVLP, the mean score of all the students was higher in the post test, with the mean score of 71.26 and the standard deviation of 9.00.

Table 4.2 The maximum and minimum scores of the pre and post- translation vocabulary tests

Test	Maximum	Minimum
Pre-test	72	24
Post-test	90	44

Table 4.2 shows that the maximum scores of the pre-test was 72, whereas the maximum scores of the post-test was 90. For the minimum scores of pre -test was 24; while as the minimum scores of the post-test were 44. It can be concluded that the participants managed to make an improvement in their vocabulary knowledge after learning the BVLV both before and after learning BVLV.

Table 4.3 The comparison of pre -and post-vocabulary translation tests in terms of the value of the mean scores, the below mean and the above mean

Test	Below mean scores (%)	Mean scores (%)	Above mean scores (%)
Pre-post	36.95 (17 students)	4.34 (2 students)	27.00 (27 students)
Post-test	2.17 (1 students)	0.00 (0 student)	97.80 (45 students)

When comparing the value of the mean score, the below mean score and the above mean score level obtained by the 46 participants, the results of the pre-test showed that there were 17 participants who got the scores at the below mean level, making up 36.95 percent. There were only two participants who got the scores at the level of the mean value, making up 4.34 percent. However, there were only 27 students who got the level of the above mean score value, making up 27 percent.

Nevertheless, the results of the post test scores showed that there was only one student who got the scores at the below mean level, making up 2.17 percent. No one can get the scores at the mean value level, making up zero percent. However, there were 45 students who got the scores above the mean level, making up 97.80 percent. It can be seen that the students made a certain of improvement in their learning the vocabulary through the BVLP.

In order to obtain the statistical difference value of the pre-test and post-test, the paired sample test was analyzed, the results were presented in Table 4.4 below.

Table 4.4 The Statistical difference value of the pre-test and post-tests

Paired Samples Test								
	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 pre - post	9.45652	9.17171	1.35230	2.18018	6.73286	-14.388	45	.000

Table 4.4 reveals a significant difference between pre-test and post-test scores, at the level of .001, in the subjects' performance after using the BVLP. It can be concluded that the BVLP has made a positive impact on their vocabulary knowledge.

4.1.2 Qualitative results regarding Research Question 1:

A semi-structured interview was carried out with ten participants asking them to what extent the BVLP could help them improve their vocabulary knowledge. The ten participants were three males and seven females, third-year Business English majors, KCU representing the high, mid and low English proficiency level. The

participants were three males and seven females. Each participant spent approximately 15 minutes participating in the interview session.

The findings from the interviews revealed that 90% of the interviewees (9 out of 10) who are from the high mid and low English proficiency levels all agreed that the BVLP could help them improve their vocabulary knowledge. Some examples of participants' reports on their opinions are presented below.

"I could improve my vocabulary knowledge; this BVLP helped me improve my vocabulary knowledge." (Low proficiency student 1 , interview, 15 January 09)

"Yes, this BVLP can help me improve my vocabulary knowledge, particularly some words meaning such as fiscal, consecutive, and deteriorate which I have never known before." (Mid proficiency student 3, interview, 15 January 09)

"Of course, I can learn new words and their meanings deeply from the BVLP." (Low proficiency student 7, interview, 15 January 09)

However, 10 % of the interviewees (1 out of 10) who belong to the high English proficiency level agreed that the BVLP could help them expand their vocabulary knowledge ,the advanced students found some of the words too easy.

"I enjoy learning BVLP but some words such as financial is easy for me because I have already known it". (High proficiency student 2, interview, 15 January 09).

It can be concluded that these 'before' and 'after' findings clearly revealed that there were significant differences between the pre-test and post-test scores, at the

level of .001 in the subjects' performances after using the BVLP. It could be claimed that the BVLP could help the Business English majors master the vocabulary comprehensively and effectively. This finding is consistent with the previous research findings in the designing of vocabulary learning package through CALL.

These studies also revealed that there were significant differences between the pre-test and post-test scores, at the level of .001 in the subjects' performance (Zhang, Xia, 1992 ; Goodfellow, 1994; Chun and Plass, 1996; Peter J. M. Groot, 2000; Fox, 2000; Hung-Tzu Huang and Hsien-Chin Liou, 2007; Ma, Qing; Kelly, Peter, 2006; Joseph, Samuel R H et al, 2009; and Paul, 2009).

4.2 Findings of Research Question 2: To what extent do the Business English majors, as the BVLP users, think it helps them improve their vocabulary knowledge?

The purpose of this research question was to find out if the BVLP could help the Business English majors improve their vocabulary knowledge in terms of recognizing the words, understanding the meanings of the words, using the words in business contexts, and remembering the words. The quantitative and qualitative findings of this research question were presented, respectively.

4.2.1 Findings obtained from quantitative data: the questionnaire

After the learners had finished learning the 10 packages of the BVLP, they were asked to complete a 5-point rating scale questionnaire investigating their opinions on their own vocabulary knowledge improvement. The quantitative data collected were calculated for the arithmetic means. The results of the analysis are presented in Table 4.5, below.

Table 4.5 The results of the Business English majors' opinions on their vocabulary knowledge improvement after using the BVLP

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

Items	\bar{x}	SD
1. The BVLD program helps me improve my vocabulary knowledge.	4.40	0.49
2. The BVLP helps me recognize the target words.	4.16	0.65
3. The BVLP helps me understand the meaning of the target words.	4.10	0.50

In Table 4.5 the results from the questionnaire revealed that the participants considered the BVLP helped them improve their vocabulary knowledge, helped them recognize the target words and understand the meaning of the target words with the mean score of \bar{x} 4.40, 4.16 and 4.10, respectively.

Furthermore, the participants rated the level of their opinions as “High” that the BVLP could help them use the target words in business contexts at a 4.18 mean score. They also agreed that they could remember the target words better after learning with the BVLP at a 4.16 mean score. The participants also agreed that the BVLP could help them use the target words correctly with a mean score of 4.26 and

help them learn the business words occurring in everyday life at 3.96 mean score as show in Table 4.6.

Table 4.6 The results of the Business English majors' opinions on their vocabulary knowledge improvement after using the BVLP

Items	\bar{x}	SD	Items
The BVLP enables me to use the target words in business contexts.	4.18	0.52	High
I can remember the target words after learning the BVLP.	4.16	0.50	High
The BVLP helps me learn what the words sound like.	4.26	0.77	High
The BVLP helps me learn the business words occurring in everyday life.	3.96	0.69	High

4.2.2 Findings obtained from qualitative data: the Interview

Apart from the available quantitative evidence, there were also qualitative data obtained from the interview. In order to obtain more in-depth data for the answer of Research Question 2, the semi-structured interview was conducted.

The aim is to find out if the BVLP help the students improve their vocabulary knowledge, recognize words, understand the meaning of words, remember words, use the words in business contexts, respectively.

4.2.2.1 Recognize words

Approximately 80% of the interviewees (8 out of ten) who are high, mid and low English proficiency grade reported that this BVLP could help them

recognize the target words better. They learned word spelling, written forms of the words, and word pronunciation. They became familiar with these words so they were able to recognize the words when they were heard or seen. Some examples of students' reports are given below.

"I can recognize the words when I heard or saw them." (High proficiency student 1, interview, 16 January 09)

"The BVLP could help me to recognize the target words. I learned their spelling, the written form of words, word pronunciation and examples of using words correctly." (Low proficiency student 4, interview, 16 January 09)

"I can recognize words when I had seen those words again because I learned word form, word spelling, words pronunciation through the BVLP." (High proficiency student 6, interview, 16 January 09)

It can be seen that the participants could recognize the words well after learning BVLP.

4.2.2.2 Understanding the meaning of words

About 70% of the interviewees (7 out of 10) who are high, mid and low English proficiency grade said that this BVLP could help them understand the meaning of target words better. Some examples of students' opinions are given below.

"The BVLP helped me a lot in understanding the meaning of words well. I can understand the meaning of words when reading." (High proficiency student 6, interview, 16 January 09)

"After learning with the BVLP, I can understand the meaning of words well." (Low proficiency student 7, interview, 16 January 09)

It can be concluded that the participants reach the vocabulary learning goals as Nation, 2001; Ooi and Lee,1996; Aebersold and Field ,1997; Catala ,2003 mentioning that vocabulary goals consist of word recognition, words meaning, and words used.

4.2.2.3 Remember the words

80% of the interviewees said that studying new ten words study in each package helped them to remember the words well because the BVLP made them easy to remember those words. Some examples taken from the students' comments are as follows.

“I can remember the target word in each package well because the new 10 word study is an appropriate number of words to recall.”

(Low proficiency student 9, interview, 16 January 09)

“ I think that I could remember the target words well because 10 appropriate words studying per package make me easy to remember.” (Mid proficiency student 10, interview, 16 January 09)

“ I learn only 10 words each package, it is not too many words to be recognized so it is not difficult for me to recall the words.” (Low proficiency student 10, interview, 16 January 09)

It can be concluded that students should learn approximately 10 new words since the 10 word study is an appropriate number for students to learn in grasp one lesson.

Furthermore, approximately 70 % of the interviewees (7 out of 10) also reported that seven repetitions of the words presented in seven activities in BVLP could help them remember the target words well. Some examples of the students' report are given below.

“I think that the seven repetitions of the target words presented in seven vocabulary learning activities could help me remember the target words well.” (Mid proficiency student 5, interview, 16 January 09)

“I could recall the target words when having seen these words again and again through learning seven activities through BVLPL .” (Low proficiency student 8, interview, 16 January 09)

“I have seen and come across these target words again and again at least 7 times presented in seven vocabulary activities; that makes me remember the target words well.” (Low proficiency student 10, interview, 16 January 09)

“I could recall the target words when having seen these words again.” (High proficiency student 8, interview, 16 January 09)

“I have seen and met these target words again and again at least 7 times presented in seven vocabulary activities; that make me remember the target words well.” (Low proficiency student 10, interview, 16 January 09)

It can be concluded that the students can remember the target words well if they have a chance to meet the words again and again at least 7 times , this findings coincide with Crothers and Suppes, 1967; Saragi et al. ,1978: 72-78; Nation ,1982;Wallace ,1984;Tinkham ,1993 suggesting that six or seven repetitions of the same word. That students need see words only about 7-8 times then they can remember all and that students will remember it better if they have more opportunity to practice them.

4.2.2.4 Correctly using the words in business contexts

“I can read business news understandably because these words I have learned are mostly found in business fields and everyday life.” (Low proficiency student 7, interview, 16 January 09)

“ I can use the words in business contexts correctly because I learned the words through the BVLP which helps me understand the meaning of words when reading . (High proficiency student 9, interview, 16 January 09)

“BVLP helps me learned the words often found in business contexts and everyday life, I can improve my vocabulary a lot. (Mid proficiency student 10, interview, 16 January 09)

Apart from the students’ vocabulary knowledge improvement in terms of recognizing words, understanding the meaning of words, remembering the words, correctly using the words in business contexts as mentioned above, the others benefits obtained from learning the BVLP were reported by students in terms of improving students’ vocabulary knowledge and reading skill, motivation stimulation, and positive attitudes towards BVLP, respectively.

4.2.2.5 Improving students’ vocabulary knowledge and reading skill

80 % of interviewees said that the BVLP could help them improve their reading skill and vocabulary knowledge after learning the BVLP.

“ I can improve my reading skill and vocabulary knowledge after learning the BVLP.” (Low proficiency student 4, interview, 16 January 09)

“I can read business news understandably when knowing the meaning of words well.”(Mid proficiency student 6, interview, 16 January 09)

“I can improve my vocabulary knowledge that lead me understand the meaning of words well when reading business texts and newspapers; for

example, I can know and guess the meaning of words “fiscal” appearing in financial reading texts, I can read the texts understandably”.(Low proficiency student 8, interview, 16 January 09)

It can be concluded that vocabulary and reading is very close relationship as many scholars mentioning that this might be due to the fact that improvements in vocabulary might result in improvements in reading skill. Other related studies on vocabulary and reading and, for example, Laufer ,1989; Hirsh and Nation,1992; Laufer ,1992; Hu Hsueh-chao and Nation ,2000; Qian and Schedl ,2004; Chujo and Utiyama ,2005;and Shiotsu and Weir ,2007.

4.2.2.6 Motivation stimulation

Most of the 80% of the interviewees (8 out of 10) said that the BVLP helped them stimulate their motivation in learning and improving vocabulary knowledge. They mentioned that the self- vocabulary testing to check known or unknown words in each package of the BVLP could help them assess their vocabulary knowledge. This could stimulate their motivation in learning with the BVLP if their vocabulary knowledge is low. It was the attention on the unknown word which promotes their motivation to learn. Some examples of the students’ reports are presented below.

“I think that the self-vocabulary testing in the BVLP for checking the known or unknown words in each package could help me know my vocabulary knowledge; this helped me have more motivation to learn more words with the BVLP” (High proficiency student 2, interview, 15 January 09)

“When I got low scores in checking my vocabulary knowledge from the self-vocabulary testing before moving to learn the next package of the BVLP, I have more motivation to learn vocabulary in order to get higher scores.” (Low proficiency student 5, interview, 16 January 09)

Furthermore, 100% of the interviewees admitted that they enjoyed learning with the BVLP through CALL. They found the BVLP very useful, interesting and fun in stimulating their motivation to learn. Some examples of students’ reports are presented below.

“It was very convenient and easy to learn because I could learn vocabulary through the computer just to click on the website.” (Mid proficiency student 4, interview, 15 January 09)

“The program is very useful for vocabulary learning; it is fun and easy to understand.” (Mid proficiency student 5, interview, 15 January 09)

“ It is very easy for me to learn vocabulary by my own , just sitting in front of the computer screen , it stimulates my motivation to learn without loss of face when doing wrong”. (Mid proficiency student 7, interview, 15 January 09)

The data obtained indicated that the students were satisfied with the BVLP. They enjoyed learning through the BVLP. They could improve their performance in language learning through the computerized instruction and stimulate their motivation as well. This finding was in agreement with Chun and Plass; 1996; Laufer and Hill, 2000; and De Ridder, 2002. They have found consistently that learning vocabulary through computerized instructions or computer mediated situations made the learners satisfied and improved their vocabulary and motivation.

It can be summarized that motivation is one of the important factors in language learning. The capacities of computers in combining tutorial, interactive, and visual teaching frequently bring about a positive effect on learners' motivation (Kenning and Kenning, 1983).

4.2.2.7 Positive attitudes towards learning via BVLP

About 80% of the interviewees thought that the BVLP is very useful, interesting and fun in learning vocabulary. This shows the students' positive attitudes towards learning BVLP. Some examples of students' reports are presented below.

"I think the BVLP is a good instrument to learn vocabulary by myself." (Mid proficiency student 8, interview, 16 January 09)

"I think I enjoyed learning with the BVLP". (Low proficiency student 9, interview, 16 January 09)

"I like learning BVLP because it is interesting and fun." (Low proficiency student 10, interview, 16 January 09)

100% of the interviewees mentioned that they enjoy learning with the BVLP they thought that it can promote autonomous learning, critical thinking, problem solving and collaboration among the learners. Some examples of students' reports are presented below.

"I like this BVLP, the vocabulary web board, because it helps me have a chance to consult friends while learning." (Low proficiency student 6, interview, 15 January 09)

"The vocabulary web board is very useful. It helps me learn words by myself but I have a chance to consult friends and the teacher while learning". (High proficiency student 7, interview, 15 January 09)

The results indicated that the students were satisfied with the BVLP. These findings were in agreement with Chun and Plass; 1996; Laufer and Hill, 2000; and De Ridder, 2002. They have also found consistently that learning vocabulary through computerized instructions or computer mediated situations made the learners satisfied and improved their vocabulary learning.

4.3 Findings of Research Question 3: How does each type of exercise in the BVLP help the Business English majors understand the meanings of the words, use the words in business contexts, and remember the words?

The purpose of this research question was to describe how each type of exercise in the BVLP helps the Business English majors understand the meanings of the words, use the words in business contexts, and remember the words?

4.3.1 Results obtained from quantitative data: the Questionnaire

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

Table 4.7 The results of the Business English majors' opinions after using the BVLP

Rank	Items	\bar{x}	SD	Level
1	23.The gap-filling exercise enables me to use the target words in the context.	4.52	0.94	High
2	13. The three types of exercises included in the BVLP help me improve my vocabulary knowledge.	4.20	0.63	High
3	16.The gap-filling exercise helps me improve my vocabulary knowledge.	4.10	0.64	High
4	19.The gap-filling exercise helps me understand the meaning of words.	4.06	0.72	High
5	20. The association words exercise helps me understand the meaning of words.	4.04	0.76	High
6	17.The association words exercise helps me improve my vocabulary knowledge.	4.00	0.67	High
7	15.The matching exercise helps me improve my vocabulary knowledge.	3.94	0.76	High
8	25.The gap-filling exercise helps me improve my vocabulary for reading.	3.92	0.57	High
9	21.The matching exercise enables me to use the target words in the context.	3.90	0.73	High
	18.The matching exercise helps me understand the meaning of words.	3.76	0.55	High

Rank	Items	\bar{x}	SD	Level
10	24.The matching exercise helps me improve my vocabulary for reading.	3.70	0.46	High
11	24.The matching exercise helps me improve my vocabulary for reading.	3.70	0.46	
12	22.The association words exercise enables me to use the target words in the context.	3.62	0.54	Very high
13	26.The association words exercise helps me improve my vocabulary for reading.	3.52	0.61	High

In Table 4.7 in response to RQ 3: “How does each type of exercise in the BVLP help the business English major students understand the meanings of the words, use the words in business contexts, and remember the words?”, the questionnaire results obtained, concerning the vocabulary exercises included in the BVLP, the students admitted that the three types of exercises, namely, matching, gap filling, and word association could help them improve their vocabulary knowledge with the mean score of 4.20.

The students, overall, accepted that among the three types of vocabulary exercises included in the program, the gap filling exercise helps them improve their vocabulary knowledge the most with the mean score of 4.10, followed by the word association and matching exercises with the mean scores of 4.00 and 3.94, respectively.

Similarly, the students also point out that the gap filling exercise helped them understand the meaning of the target words with a mean score of 4.06, followed by the words associating and matching exercises with the mean scores of 4.04 and 3.90, respectively.

However, among the three types of exercises included in the BVLP, the gap-filling exercise was one of the most effective types of exercises to help them to use the target words in contexts with the mean score of 4.52 at “Very High” followed by the matching exercises and words association exercises at the level of “High,” with 3.90 and 3.62 mean scores, respectively.

Moreover, the students expressed that the BVLP stimulated them to have more motivation and gave them the confidence to improve their vocabulary knowledge, with the mean score of 4.26. It also helped them experience collaborative learning while learning with the BVLP.

4.3.2 Results obtained from the qualitative data of research question 3: How does each type of exercise in the BVLP help the Business English majors understand the meanings of the words, use the words in business contexts, and remember the words?

4.3.2.1 Understanding the meaning of the target words

In the interview results, 70% of the interviewees said that the three types of exercises, namely gap-filling exercise, matching exercise and words association exercises included in the BVLP could help them understand the meanings of words well, and that especially the gap-filling exercise helped them understand the meaning of words well. They revealed they can choose the correct word filling in the blank correctly because they guess the meaning of unknown words from contexts.

“I think gap-filling exercise can help me understand the meaning of the target word, I can choose the correct word to fill in the blank correctly because I can guess the meaning of the word from contexts. That helps me understand the meaning of words well” (High proficiency student 8, interview, 16 January 09).

“I think that the type of gap-filling exercise is the best for me because it helped me understand the meaning of the words in contexts by guessing the unknown words in contexts. (Low proficiency student 9, interview, 16 January 09).

20% of the interviewees said that the matching exercise is the first step to help them recall the target words and give them gain more understanding of the meaning of words directly. An example is provided by a student’s report.

“I think that the matching exercise is the first step to help me recall the target words and understand the meaning of words directly.” (Mid proficiency student 2, interview, 16 January 09)

The rest of 10% of the interviewees revealed that the word association exercise could help them remind of other words related to the same meaning of the target words.

4.3.2.2 Remembering words

80% of the interviewees who are high, mid and low English proficiency level think that the matching exercise is easy to do and it could help them remember the meaning of words both in Thai and English directly and quickly, particularly in reading. Some examples of students’ reports are shown below.

“ I like matching exercise the most because it is easy to do. It could help me remember the meaning of words both in Thai and English (Mid proficiency student 1, interview, 15 January 09).

“ I prefer doing matching exercise the most because it could help me to remember the meaning of words quickly and directly in reading”. (Low proficiency student3, interview, 15 January 09)

“ I like the matching exercise because I am quite familiar with doing this type of exercise and it is easy to understand and spend only a short time in acquiring and remembering the meaning of words in reading.” (Mid proficiency student 2, interview, 16 January 09)

Only 10% of the interviewees who are high English proficiency level reported that they like the gap-filling exercise because it could help them remember the meaning of words in contexts but it is quite difficult to choose the correct words to fill in the blank provided when they were faced with difficult unknown words in the contexts.

“I like this type of gap-filling exercise because it could help me understand the meaning of words in context but it is quite difficult for me to choose the correct words to fill in the blank because of the unknown words in the contexts”. (Mid proficiency student 2, interview, 15 January 09)

The rest of 5% who are high English proficiency level mentioned that the words association exercise is useful in learning the words related to other words in similar and different meanings. Some examples of the student’s interview data is presented below.

“I like the associating words exercise can help me remember the meaning of words because I know the words related to other words with similar and different meanings. (High proficiency student1, interview, 15 January 09).

4.3.2.3 Correctly use the words in business contexts

80% of the interviewees mentioned that gap-filling exercises could help them use the words in business contexts correctly.

Some examples of students' reports are shown below.

“ I like gap-filling exercise the most because it can help me use the correct words in business contexts”. (Mid proficiency student 1, interview, 15 January 09)

“ I think doing gap-filling exercises could help me to understand the meaning of words that leads to use the words in business contexts appropriately. (Low proficiency student 2, interview, 15 January 09)

10% of the rest accepted that associating words exercise is the most preferable because it is useful in learning the word related to other words. An example of a student's report is presented below.

“I like the associating words exercise because I can learn the word related to other words with similar and different meanings; it is very useful.” (Mid proficiency student3, interview, 15 January 09)

Surprisingly, it has been shown that the students who have high English proficiency level in taken the pre -and post -vocabulary translation tests conducted in the present study also revealed that they like the gap-filling exercise the most because they think that it is a good type of vocabulary exercise in helping them guess the meaning of words in contexts correctly. This makes them enable to understand the meaning of words and use the words appropriately at the same time. In contrast , the low and intermediate English proficiency in taken the same pre and post vocabulary translation tests said that they like the type of matching exercise the most because it

is easy and quick to understand and remember the meaning of words, particularly it is more easier for them if the meaning of words provided in Thai.

However, the results of the study demonstrated that the three types of exercises, namely, gap-filling exercises, matching exercises and words association exercises can be beneficial for students in learning and improving vocabulary. Gap-filling exercises can help the students to understand the meaning of words from contexts that make them enable to use the words in contexts correctly. Matching exercise is the first step for the students to recognize the target words because it is easy and quick to understand and remember the meaning of words both in Thai and English, particularly in reading. Word association is a rather difficult type of exercises in the students' opinions but it is useful for them to recognize and understand the meaning of similar and different words. These results may be the fact that the students were familiar with matching exercises because they can acquire the meaning of unknown words by searching the meaning of words in their mother language. Gap-filling exercises can help them understand the meaning of words well since the students have to understand the meaning of words by guessing meaning of words corresponding with the correct meanings in each context. That makes them understand the meaning of words and remember the words well.

4.4 Summary

As mentioned above in the previous chapters, the main purposes of the present study were to design the BVLP and determine its effectiveness. The three main research questions raised to the present study were 1) Does the developed BVLP improve the Business English majors' vocabulary knowledge? 2) To what extent do

the BVLP Business English majors, as the BVLP users, think the program helped them recognize words, understand the meanings of the words, use the words correctly, and remember the words?; and 3) How does each type of exercise in the BVLP help the Business English majors recognize the words, understand the meanings of the words, correctly use the words in business contexts, and remember the words.

The findings show that the performance of the students after learning the BVLP was improved. There were also statistical differences between the pretest and posttest scores at 0.001 levels. These results also revealed that the developed BVLP was efficient in learning vocabulary knowledge for the Business English majors.

The findings of the performance of the students' opinions on their vocabulary improvement after learning BVLP were presented. The results reported that this BVLP could help them improve their vocabulary knowledge. They can recognize and understand the meaning of the target words, and use the words in business contexts better. They can also improve their reading skill and vocabulary knowledge at the same time. Furthermore, the students have positive attitudes towards learning BVLP.

The types of exercises included in the BVLP, especially the gap-filling exercise, helped them understand the meaning of words better. The repetitions of target words which appear more than seven times could help them remember the target words well. Also, the number of words about 7-10 words per lesson is appropriate for them to recognize the words to be learned. The BVLP can also promote autonomous learning for them.

The next chapter, Chapter V, demonstrates the summary of this research study, the implications of the present study and recommendations for further research will be suggested.

CHAPTER 5

CONCLUSIONS AND RESEARCH RECOMMENDATIONS

This study sets out to examine what are considered important issues regarding the design of the BVLTP and its effectiveness. This chapter presents a summary of the research findings, implications for English language teaching and learning, recommendations for further research studies, and conclusions of the study.

5.1 Summary of the present study

As mentioned in Chapter 1, one of the main causes difficulty in learning English for Thai students is that they have insufficient vocabulary knowledge (Wangkangwan, 2007). For example, the findings conducted by Aegpongpaow (2008) reported that a vocabulary problem is one of reading difficulties for Thai students. Similarly to Sittirak and Ponjamreon (2009) also revealed that 400 students of 4 universities in Thailand, namely, Chiang Mai University, Khon Kaen University, Srinakharinwirot University and Prince of Songkla University at Trang Campus, the freshmen, sophomores, juniors and seniors participated in this study revealed that there are only few students can choose the correct meaning of words and know how to choose the proper words to fill in the gap. Thus, more than fifty percent of students gave the wrong answers. Furthermore, the findings were found that one of the problems that is because of students' poor vocabulary knowledge.

Considering the urgent needs of the Business English majors at Khon Kaen University to improve their vocabulary knowledge, a Business Vocabulary Learning Program or BVLP was constructed. The main aims of this present study were to design the Business Vocabulary Learning Program and to determine its effectiveness. The research questions raised for the present studies were: Research Question1: Does a developed BVLP improve the Business English majors' vocabulary knowledge? Research Question2: To what extent do the BVLP Business English majors, as the BVLP users, think the BVLP help them to recognize the words, understand the meanings of the words, use the words correctly, and remember the words? And Research Question3: How does each type of exercise in the BVLP help the Business English majors to recognize the words, understand the meanings of the words, use the words correctly, and remember the words? The research instruments used in the present study comprised pre-post vocabulary translation tests, questionnaires, and interview.

To select a word list to be learned, through the Wordsmiths to Version 4, a corpus of the 4,375 most frequently appeared words was chosen from a total of 238,558 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 words were chosen by 10 experienced Business English teachers and 450 words were selected by 46 participants mentioned earlier. A comparison of the two lists yielded 100 overlapped words to be mastered. To help the students master these 100 words, the Business Vocabulary Learning Program was then constructed based on a theoretical framework derived from the Constructivism Theory, Second Language Acquisition Theory, vocabulary learning & teaching theories.

Forty-six third -year students who were studying in the second semester at the Faculty of Humanities and Social Sciences at KKU participated in the study. The program underwent three trials with Business English majors, adjusted, and validated to ensure its quality. The final version of the BVLP was used by the 46 participants for a period of 10 weeks. The vocabulary translation pre-test and post-tests were administered.

The results of the pre and post vocabulary translation tests were significant at .001 levels. An increase in the post-test mean score proved that the constructed BVLP did help the Business English majors improve their vocabulary knowledge. The results also show that how 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 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.

5.2 Implications of English teaching and learning

As summarized in the previous chapter in response to the research questions, the research findings demonstrated that the BVLTP can help the Business English majors improve their vocabulary knowledge. Some implications for the teaching and learning of English can be drawn as follows:

- a) In teaching and learning vocabulary, words with high frequency are a focus of learners' attention (Nation and Newton, 1997). Understanding of a word acquired from meeting it in context in reading is still useful. It can be helpful to develop learners' awareness of strategies such as intelligent guessing from contexts. When learning a new unit or a new lesson, students always come across masses of new words. It would be easier for them to learn these words in context and they would know how these words fit in with the other words in a concrete sentence. By saying that, it is meant that the words should be used in their proper forms, varying the parts of speech. Usually it provided a list of new words at random order, together with an English definition of these words and some sentences with a blank each. Students have to figure out what is missing in the blank provided, what part of speech of a word is needed and make sense of the sentences. So the words learnt in this way are not difficult to remember. Actually, it would be a better idea to get students to make their own gap-filling vocabulary exercises by themselves. Get them to choose an interesting text, story, or an excerpt from an article, which is not difficult. Copy the text and delete some words on purpose. Students may give such gap-filling exercises for each other, focusing on vocabulary in different nouns, verbs, prepositions, adjectives, in a certain context. It's not just fun to make the gap-filling

exercises, filling them and taking the original text to check the answers, but also it promotes learner autonomy, creative thinking and group work.

- b) According to the results of the study, and the related literature review, it has been found that students should learn about 5 – 10 new words per study session. The number of repetitions should be approximately 7-10 times to help the learners remember the words well. As many scholars in vocabulary studies mentioned that words can be remembered by hearing them once. Wallace (1984), Wodingsky & Nation (1988: 155-161) state that students need 10 repetitions to remember words. Nation concluded that 5-16 exposures are needed in order to learn a word from There are benefits for the Business news corpus, for teachers and course designers, words found in the business news sections of English-language newspapers to teach students in reading and vocabulary class.
- c) Teachers and course designers can use the high frequency of words derived from the corpus and the BNC in materials design, including the development of vocabulary via Computer-Assisted Language Learning.
- d) A proposed model of designed work which brings a corpus-based approach, constructivism theory, and vocabulary teaching and learning theory as a model for developing Computer-Assisted Vocabulary Learning will be useful for designing vocabulary learning program.
- e) This design of the BVLPP can be one alternative as a supplementary vocabulary program which may be used as a supporting material in teaching and learning Business English.

5.3 Recommendations for further research study

Though the BVLP was proved to be effective, there is not yet a satisfactory answer. There are a number of suggestions to be made for the next study. Improvements will be made to the design of the BVLP based on the results of the pilot study and the comments/suggestions made by learners. More importantly, the following questions are addressed:

- a) Although the BVLP was designed for Business English majors at Khon Kaen University, the future study 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. 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.
- d) 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.

- e) When designing the CALL program in the next study, the time allocation, language used, and instructions in the program should be considered.
- f) Further studies should be undertaken to construct CALL programs on other skills and sub skills such as reading, listening writing, grammar, pronunciation etc.
- g) Further studies should be conducted comparing the progress of students' proficiency between using the CALL and conventional or other methods.
- h) The meaning and the use of high frequency words, both function words and content words, should be studied.

5.4 Summary

Since the Business English majors had limited vocabularies, no self-study materials, and limited class time, the urgent need for BE students in vocabulary development in the Business English program at KKU was identified. A design of a corpus-based Business Vocabulary Learning Program was administered with the goal of helping the Business English majors to improve their vocabulary knowledge. Therefore, the main purposes of the present study are to design the BVLP and to determine its effectiveness in order to help them improve their vocabulary knowledge.

The results of the present study proved that the design of BVLP, which is based on constructivism theory, second language acquisition theory, vocabulary learning theory and corpus based approach, is effective. It can help the Business English major students improve their vocabulary knowledge. As a result, they can recognize the words, understand the meaning of words and use the words correctly in business contexts.

The design of CALL program like BVLP should be undertaken in the further research study. The time allocation, language used, and instructions in the program should be considered. The meaning and the use of high frequency words, both function words and content words, should be considered. The concordance lines or collocations in the field of Business English should be more focused on. Furthermore, 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.

Hopefully, the program will be useful for BE students in improving their vocabulary knowledge and stimulate ideas for ESP teachers to design additional materials for teaching and learning vocabulary.

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APPENDICE A

Preliminary survey

A Survey for Business English teaching and learning problems

Dear Business English teachers,

This questionnaire was designed to examine your problems in teaching and Learning Business English in order to have some information to support for the preliminary study of my research.

Your responses will provide insights to this research in terms of teachers' opinions in the problems of teaching Business English courses. Please answer each question carefully based on your real facts. Your responses will be kept confidentially and used for research purposes only.

Thank you very much.

Chongrak Liangpanit

PART 1: General information

Instruction: Please tick in the () and write in the space provided.

Q1. Gender: () Male () Female

Q2. Age: () 20s () 30s () 40s () over 50s

Q3. You are: () Full-time teacher () Part-time teacher () Teaching Assistant

Q4. Please check your highest degree and specify your field and institution:

() Bachelor's degree:

() Master's degree:

() Doctoral degree:

() Others:

.....

Q5. How long have you been teaching English?yearsmonths

Q6. How long have you been teaching English at university level?years

.....months

Q7. How long have you been teaching this BE course? (number of
semesters)

Q8. Do you think you have problems in teaching BE course or not?

() Yes, because

() No, because

PART II: Problems in teaching BE courses

Instruction: Please check ✓ in the box for the problems you have encountered in BE course the most. For a problem that you mark, please identify what the causes of problems you have.

Skills	Causes of problems
<input type="checkbox"/> speaking	
<input type="checkbox"/> listening	
<input type="checkbox"/> reading	
<input type="checkbox"/> writing	
<input type="checkbox"/> grammar	
<input type="checkbox"/> pronunciation	
<input type="checkbox"/> vocabulary	
<input type="checkbox"/> materials	
<input type="checkbox"/> teaching aids	
<input type="checkbox"/> students	
<input type="checkbox"/> test	
<input type="checkbox"/> class atmosphere	

PART III: Comments on language teaching

Instruction: Please write in Thai your problems, or comments about the language teaching in this BE course (e.g., use of materials and teaching aids, types of activities and tests, types of students, class atmosphere, suggestions).

Problems:.....

Other comments:

A Survey for Business English learning problems

Dear Business English majors

This questionnaire was designed to find out your problems in learning Business English. Your responses will provide insights in terms of students' opinions concerning the problems you have in learning Business English courses. Please answer each question carefully based on facts. Your responses will be kept confidentially and used for research purposes only.

Thank you very
 much.

Chongrak
 Liangpanit

Part 1: General information

Instruction: Please tick in the () and write in the space provided.

Q1. Gender: () Male () Female

Q2. You are: () regular program () special program

Q3. How long have you been learning English?yearsmonths

Q4. How long have you been learning English at university level?years

Q5. Do you think you have problems in learning BE course or not?

() Yes, because

() No, because

Part II: Problems in learning BE courses

Instruction: Please check (in the box for the problems you have encountered in BE course the most.

For a problem that you mark, please identify what the causes of problems you have.

Skills	Causes of problems
() speaking	
() listening	
() reading	
() writing	
() grammar	
() pronunciation	
() vocabulary	
() materials	
() teaching aids	
() students	
() test	

Part III: Comments on language teaching

Instruction: Please write (in Thai is okay) your problems or comments about the language learning in this BE course

Problems:

.....
.....
.....

Other comments:

.....
.....
.....
.....

☺ THANK YOU VERY MUCH FOR YOUR CONTRIBUTION ☺

APPENDIX B

BUSINESS NEWS CORPUS

Rank	Word	Frequency
1	THE	11182
2	TO	7850
3	OF	4550
4	AND	3520
5	IN	3450
6	A	3320
7	FOR	3100
8	SAID	2180
9	ON	2100
10	IS	1900
11	THAT	1750
12	WILL	1720
13	PER	1680
14	FROM	1675
15	WITH	1500
16	CENT	1436
17	YEAR	1442
18	ITS	1413
19	BE	1393
20	IT	1346
21	AS	1336
22	HE	1227

23	BY	1188
24	AT	1140
25	HAS	1139
26	THIS	1131
27	WAS	1031
28	WOULD	990
29	ARE	971
30	THAILAND	908
31	BILLION	830
32	HAVE	828
33	MILLION	785
34	NEW	754
35	THAI	752
36	NOT	707
37	MORE	684
38	LAST	678
39	ALSO	669
40	AN	664
41	THAI	752
42	NOT	707
43	MORE	684
44	LAST	678
45	ALSO	669
46	AN	664
47	WHICH	648
48	COMPANY	643
49	MARKET	642
50	THEIR	631

51	BANK	597
52	UP	583
53	BUSINESS	555
54	BUT	553
55	PUBLISHED	551
56	WE	548
57	HAD	535
58	THAN	512
59	THEY	502
60	ABOUT	468
61	GOVERNMENT	457
62	OR	429
63	SALES	407
64	ALL	401
65	NATION	401
66	HIS	380
67	FIRST	379
68	FOREIGN	378
69	TWO	374
70	BEEN	372
71	SHOULD	371
72	PRODUCTS	370
73	WERE	369
74	BAHT	361
75	YESTERDAY	358
76	GROWTH	354
77	AFTER	353
78	IF	351

79	ONE	350
80	ONLY	345
81	MAR	338
82	RATE	318
83	ECONOMIC	309
84	INVESTMENT	306
85	OTHER	305
86	BECAUSE	304
87	SET	303
88	YEARS	302
89	US	297
90	I	293
91	CAN	292
92	INTERNATIONAL	288
93	HOWEVER	287
94	MINISTRY	287
95	WHILE	287
96	NEXT	283
97	COMPANIES	279
98	INDUSTRY	273
99	OVER	273
100	CAPITAL	272
101	THREE	271
102	OUR	269
103	EXPECTED	266
104	INTO	266
105	THERE	263
106	WHO	263

107	NOW	257
108	TRADE	253
109	BANGKOK	252
110	CENTRAL	251
111	DIRECTOR	249
112	TOTAL	244
113	TIME	242
114	INCREASE	239
115	DEVELOPMENT	236
116	MANAGEMENT	236
117	COULD	233
118	GROUP	227
119	WHEN	227
120	POLICY	225
121	HIGH	222
122	ASIA	220
123	SOME	220
124	THEM	216
125	MONTH	215
126	PRESIDENT	215
127	PLAN	214
128	SAYS	214
129	PRICES	212
130	SUCH	211
131	MINISTER	210
132	APR	209
133	LOCAL	208
134	SERVICE	208

135	CUSTOMERS	206
136	SERVICES	203
137	FINANCE	202
138	PROPERTY	201
139	BANKS	200
140	PRICE	200
141	PROJECT	200
142	SHE	200
143	UNDER	200
144	INVESTORS	198
145	MARKETING	198
146	TELECOM	198
147	BOTH	197
148	EXCHANGE	195
149	MANY	194
150	SO	194
151	COUNTRIES	193
152	EXPORT	193
153	DEPARTMENT	192
154	JAPAN	191
155	OUT	190
156	NATIONAL	188
157	POWER	184
158	WELL	184
159	INTEREST	183
160	PLANS	182
161	MOST	181
162	PRIVATE	181

163	STILL	180
164	LIKE	178
165	SECTOR	178
166	COMPANY'S	177
167	FINANCIAL	177
168	NO	176
169	PEOPLE	174
170	INCLUDING	172
171	PRODUCTION	171
172	STATE	171
173	MAY	170
174	DEMAND	169
175	THAILAND'S	169
176	OIL	168
177	BETWEEN	167
178	STOCK	167
179	MAJOR	166
180	DURING	159
181	TECHNOLOGY	158
182	VALUE	158
183	ANY	157
184	GLOBAL	157
185	AGREEMENT	155
186	DOMESTIC	155
187	HELP	155
188	TAKE	153
189	DUE	152
190	ECONOMY	152

191	ENERGY	152
192	THESE	152
193	BEFORE	151
194	GENERAL	151
195	THROUGH	151
196	WORLD	151
197	NETWORK	150
198	SECURITIES	150
199	ADDED	149
200	AGAINST	149
201	QUARTER	148
202	DAY	147
203	SHARE	146
204	TOT	146
205	FOUR	144
206	CUT	143
207	OFFICE	142
208	ACT	140
209	CENTRE	140
210	EXPORTS	140
211	MARKETS	140
212	NEED	140
213	COSTS	139
214	COUNTRY	139
215	USE	138
216	DOWN	137
217	LONG	136
218	THOSE	135

219	SHARE	146
220	DO	134
221	SMALL	134
222	COMMITTEE	133
223	SHOW	133
224	MONTHS	131
225	BOARD	130
226	PRODUCT	130
227	DO	134
228	SMALL	134
229	COMMITTEE	133
230	SHOW	133
231	MONTHS	131
232	BOARD	130
233	PRODUCT	130
234	SECOND	130
235	RETAIL	129
236	SAME	129
237	MUST	128
238	PART	128
239	LOWER	127
240	OPERATORS	127
241	SINCE	127
242	BASED	126
243	BUDGET	126
244	DOLLAR	126
245	WEEK	126
246	BOOST	125

247	LAW	125
248	AMONG	124
249	WHAT	124
250	INDUSTRIAL	122
251	NUMBER	122
252	ALREADY	121
253	BRAND	121
254	COST	121
255	CURRENT	121
256	EXPORTERS	121
257	BEING	120
258	LOANS	120
259	WANT	120
260	MEETING	119
261	REVENUES	119
262	WORTH	119
263	COUNTRY'S	117
264	RISE	117
265	ANOTHER	116
266	JAPANESE	116
267	PROVIDE	116
268	EACH	115
269	EXPECTS	115
270	ORDER	115
271	FIRM	114
272	HOME	114
273	MADE	114
274	SINGAPORE	114

275	THEN	114
276	GOOD	113
277	RICE	113
278	TAX	113
279	CONSUMERS	112
280	INFORMATION	112
281	LOW	112
282	SPENDING	112
283	FOCUS	111
284	SIAM	111
285	UNITS	110
286	USED	110
287	WAY	110
288	CONSUMER	109
289	RESEARCH	109
290	BANK'S	108
291	SHARES	108
292	WORK	108
293	EXECUTIVE	107
294	NET	107
295	YOU	107
296	BOT	106
297	POLITICAL	106
298	SUPPORT	106
299	MIGHT	105
300	STRONG	105
301	HERE	104
302	HOW	103

303	MOVE	103
304	WHETHER	103
305	COMMERCIAL	102
306	DEAL	102
307	DESPITE	102
308	QUALITY	102
309	FUTURE	101
310	PAY	101
311	SEE	101
312	FURTHER	100
313	LEVEL	100
314	AROUND	99
315	AUTO	99
316	TERM	99
317	TRADING	99
318	CONFIDENCE	98
319	FUNDS	98
320	BECOME	97
321	BUSINESSES	97
322	CONSUMPTION	97
323	YEAR'S	97
324	MANAGING	96
325	OPEN	96
326	ACCESS	95
327	MONEY	95
328	SIX	95
329	AIRPORT	94
330	ASSOCIATION	94

331	CASE	94
332	INDUSTRIES	94
333	PROCESS	94
334	TOURISM	94
335	AVERAGE	93
336	HALF	93
337	LIFE	93
338	LINE	93
339	LOAN	93
340	BUY	92
341	CHAIRMAN	92
342	DRAFT	92
343	NON	92
344	SOURCE	92
345	WORKING	92
346	GROW	91
347	INCOME	91
348	PERIOD	91
349	TOO	91
350	CONTROL	90
351	FISCAL	90
352	FREE	90
353	PLANT	90
354	ALCOHOL	89
355	ALTHOUGH	89
356	CAT	89
357	COMMERCE	89
358	EVEN	89

359	MEMBERS	89
360	POTENTIAL	89
361	TONNES	89
362	ACCORDING	88
363	ASIAN	88
364	CAPACITY	88
365	POINTS	88
366	RATES	88
367	EXPANSION	87
368	REDUCE	87
369	FIRMS	86
370	FOOD	86
371	MEANWHILE	86
372	PROFIT	86
373	VIETNAM	86
374	APRIL	85
375	ASEAN	85
376	COMPARED	85
377	OPERATIONS	85
378	PLANTS	85
379	SELLING	85
380	WITHIN	85
381	BACK	84
382	CALLED	84
383	LAUNCH	84
384	OFF	84
385	AREA	83
386	INTERNET	83

387	MARCH	83
388	ADDING	82
389	CURRENTLY	82
390	KEY	82
391	LOGISTICS	82
392	MUCH	82
393	CREATE	81
394	DEPUTY	81
395	INVEST	81
396	IT'S	81
397	JOINT	81
398	MY	81
399	WHERE	81
400	COUNCIL	80
401	EARLIER	80
402	EXPAND	80
403	LAND	80
404	SEVERAL	80
405	THIRD	80
406	CHARGE	79
407	COME	79
408	EVERY	79
409	JUST	79
410	MAKING	79
411	PAST	79
412	PRIME	79
413	READY	79
414	REGIONAL	79

415	SOUTH	79
416	AUTHORITY	78
417	DEBT	78
418	FACTORS	78
419	LARGE	78
420	MEASURES	78
421	PROMOTE	78
422	RECENTLY	78
423	ANNOUNCED	77
424	ANNUAL	77
425	ASSET	77
426	COURT	77
427	DTAC	77
428	FOLLOWING	77
429	HER	77
430	POSITION	77
431	PROPOSED	77
432	TOP	77
433	VERY	77
434	ASSETS	76
435	CHALONGPHOB	76
436	CHIANG	76
437	ENTERPRISES	76
438	EVENT	76
439	INCLUDE	76
440	NETWORKS	76
441	ROAD	76
442	CONSTRUCTION	75

443	DID	75
444	GIVE	75
445	LARGEST	75
446	MAIN	75
447	MANUFACTURERS	75
448	PROBLEMS	75
449	RESULT	75
450	SOLD	75
451	BASIS	74
452	CURRENCY	74
453	PROGRAMME	74
454	APPRECIATION	73
455	DAYS	73
456	INDIA	73
457	LAUNCHED	73
458	MALAYSIA	73
459	OFFER	73
460	SYSTEM	73
461	TERMS	73
462	WANTS	73
463	YET	73
464	CITY	72
465	LESS	72
466	REVENUE	72
467	STAFF	72
468	CAR	71
469	FEW	71
470	INSURANCE	71

471	POINT	71
472	START	71
473	ABLE	70
474	ASKED	70
475	BETTER	70
476	ENVIRONMENT	70
477	REGION	70
478	RISING	70
479	SHORT	70
480	SPEND	70
481	VICE	70
482	MAI	69
483	OVERSEAS	69
484	PACIFIC	69
485	ADVERTISING	68
486	ALMOST	68
487	HONG	68
488	IMPROVE	68
489	NTC	68
490	OWN	68
491	SITUATION	68
492	COMPETITION	67
493	CONSIDER	67
494	MUANG	67
495	PARTICULARLY	67
496	PHUKET	67
497	STUDY	67
498	SYSTEMS	67

499	BENEFIT	66
500	DOES	66
501	INCREASED	66
502	ISSUE	66
503	NEWS	66
504	PLANNED	66
505	REPORT	66
506	SELL	66
507	STEEL	66
508	CEO	65
509	FIND	65
510	OWNED	65
511	SPECIAL	65
512	STAKE	65
513	STRATEGY	65
514	SUPPLY	65
515	TOLD	65
516	TOURISTS	65
517	DESIGN	64
518	DEVELOP	64
519	DIFFERENT	64
520	IMPACT	64
521	MEET	64
522	POLICIES	64
523	BAHT'S	63
524	BELIEVES	63
525	CABINET	63
526	GOODS	63

527	LEAST	63
528	NATURAL	63
529	RIGHTS	63
530	UNIVERSITY	63
531	BIG	62
532	ENSURE	62
533	GET	62
534	OPERATING	62
535	REACH	62
536	SLOW	62
537	BEST	61
538	CHANGE	61
539	DON'T	61
540	EXISTING	61
541	HELD	61
542	LEADING	61
543	TODAY	61
544	WITHOUT	61
545	BUYERS	60
546	CARE	60
547	COMMISSION	60
548	FORMER	60
549	HOLD	60
550	MEDIA	60
551	MEDIUM	60
552	MIDDLE	60
553	NEGATIVE	60
554	REQUIREMENT	60

555	SHAREHOLDERS	60
556	THANACHART	60
557	CONTRACT	59
558	ESPECIALLY	59
559	KNOW	59
560	MEASURE	59
561	PLACE	59
562	SQUARE	59
563	ACTIVITIES	58
564	CHIEF	58
565	COOPERATION	58
566	FEBRUARY	58
567	KONG	58
568	POSSIBLE	58
569	USING	58
570	VENTURE	58
571	AIR	57
572	CORPORATE	57
573	HEALTH	57
574	MAINTAIN	57
575	PRESSURE	57
576	THOUGH	57
577	AGREED	56
578	EAST	56
579	FOUND	56
580	GROWING	56
581	HOTEL	56
582	LATE	56

583	DROP	55
584	GO	55
585	LEGAL	55
586	NEEDS	55
587	RESERVE	55
588	REST	55
589	SECRETARY	55
590	TRILLION	55
591	UNIT	55
592	AGENCIES	54
593	AGENCY	54
594	AGO	54
595	APPROVAL	54
596	APPROVED	54
597	COMPETITIVENESS	54
598	DATA	54
599	DIGITAL	54
600	FLIGHTS	54
601	FORECAST	54
602	GOVERNOR	54
603	JANUARY	54
604	LATEST	54
605	RATHER	54
606	RISK	54
607	SONGKRAN	54
608	AIRPORTS	53
609	BUILDING	53
610	CALL	53

611	COMMUNITY	53
612	FULL	53
613	GIVEN	53
614	LOOK	53
615	MANAGER	53
616	PARTS	53
617	PROVINCE	53
618	ENOUGH	52
619	FESTIVAL	52
620	MOBILE	52
621	OFFERING	52
622	OLD	52
623	OUTLETS	52
624	PLANNING	52
625	PLAYERS	52
626	SOON	52
627	STARTED	52
628	WORLD'S	52
629	AREAS	51
630	CONTINUE	51
631	CREDIT	51
632	DECISION	51
633	ESTATE	51
634	FAMILY	51
635	GOVERNMENT'S	51
636	INSTEAD	51
637	INSTITUTE	51
638	LENDING	51

639	MATERIALS	51
640	PRESENT	51
641	REPORTED	51
642	SAYING	51
643	SIZED	51
644	SUCCESS	51
645	URGED	51
646	ACCOUNT	50
647	AGRICULTURAL	50
648	FEES	50
649	IMPORTS	50
650	LIKELY	50
651	MONETARY	50
652	MOTOR	50
653	OFFICIALS	50
654	OVERALL	50
655	REAL	50
656	REGULATIONS	50
657	RIGHT	50
658	SENIOR	50
659	TRAVEL	50
660	ADDITIONAL	49
661	CUSTOMER	49
662	DOLLARS	49
663	DON	49
664	FAR	49
665	INFLOWS	49
666	KINGDOM	49

667	RECENT	49
668	SPA	49
669	TEAM	49
670	ULTRAMAN	49
671	WASTE	49
672	ADDITION	48
673	AGAIN	48
674	COMMUNICATIONS	48
675	CONCESSION	48
676	ELECTRICITY	48
677	ENCOURAGE	48
678	EXECUTIVES	48
679	FAIR	48
680	MAINLY	48
681	MORTGAGE	48
682	PATTAYA	48
683	PUT	48
684	RUN	48
685	TREND	48
686	UNTIL	48
687	VIA	48
688	BANKING	47
689	EARLY	47
690	FOLLOWED	47
691	FUEL	47
692	HOTELS	47
693	PRODUCERS	47
694	SOCIAL	47

695	SUBSIDIARY	47
696	TRANSPORT	47
697	AOT	46
698	BIODIESEL	46
699	BUILD	46
700	CALLS	46
701	CONCERNED	46
702	CRISIS	46
703	HIM	46
704	IMPORT	46
705	LATER	46
706	LEAD	46
707	NINE	46
708	ONCE	46
709	PARTNER	46
710	PARTNERS	46
711	SHRIMP	46
712	SUGGESTED	46
713	SURVEY	46
714	BASE	45
715	BIDDING	45
716	CAMPAIGN	45
717	CLOSE	45
718	CONCERN	45
719	DEBTS	45
720	EMPLOYEES	45
721	FACILITIES	45
722	GAS	45

723	GOLF	45
724	HOLDING	45
725	HOUSE	45
726	INCREASING	45
727	INFLATION	45
728	KOREA	45
729	POLLUTION	45
730	PROMOTION	45
731	ROSE	45
732	SEA	45
733	STUDIES	45
734	ABROAD	44
735	ACCOUNTING	44
736	AIMED	44
737	BELIEVE	44
738	BONDS	44
739	COMPLETED	44
740	CONTINUED	44
741	HIT	44
742	INDEX	44
743	MANUFACTURING	44
744	NEEDED	44
745	NEVER	44
746	ORGANISATION	44
747	PETROL	44
748	PHONE	44
749	PTT	44
750	STANDARDS	44

751	SUARNABHUMI	44
752	TV	44
753	UNITED	44
754	AIMS	43
755	BIGGEST	43
756	CAME	43
757	CELLULAR	43
758	DETAILS	43
759	ISSUES	43
760	ME	43
761	OPERATOR	43
762	PASSENGERS	43
763	POPULAR	43
764	PROBLEM	43
765	RELATED	43
766	RESERVES	43
767	RESTAURANTS	43
768	RETURN	43
769	SECURITY	43
770	SEEN	43
771	SEVEN	43
772	SPEED	43
773	TIMES	43
774	AHEAD	42
775	AIRLINES	42
776	COM	42
777	DECIDED	42
778	FACE	42

779	FTA	42
780	MANAGE	42
781	METRE	42
782	OPPORTUNITIES	42
783	PACT	42
784	PERFORMANCE	42
785	PLUS	42
786	REMAIN	42
787	BOND	41
788	BRANCHES	41
789	BRANDS	41
790	CASH	41
791	COFFEE	41
792	DECEMBER	41
793	IMPORTANT	41
794	INTRODUCED	41
795	INVOLVED	41
796	LIST	41
797	MOREOVER	41
798	POSITIVE	41
799	REQUIRED	41
800	SECTORS	41
801	SERVE	41
802	SIGNIFICANT	41
803	SMES	41
804	STANDARD	41
805	TOOK	41
806	VISITORS	41

807	WATER	41
808	YOUR	41
809	AIS	40
810	AMOUNT	40
811	CLEAR	40
812	CONDOMINIUM	40
813	CONTENT	40
814	DEVELOPING	40
815	EDUCATION	40
816	EUROPE	40
817	EXHIBITION	40
818	EXPECT	40
819	EXPERIENCE	40
820	LEASE	40
821	MEMBER	40
822	NLA	40
823	PETCHANET	40
824	PRATRUANGKRAI	40
825	RAISE	40
826	RATIO	40
827	RESOURCES	40
828	SIGN	40
829	STREET	40
830	STRENGTHEN	40
831	STUDENTS	40
832	THAKSIN	40
833	AMENDMENT	39
834	BID	39

835	CARS	39
836	CLUB	39
837	CURRENCIES	39
838	DRIVE	39
840	EIGHT	39
841	HUGE	39
842	INDONESIA	39
843	OPENED	39
844	POST	39
845	RAYONG	39
846	REGISTERED	39
847	ROUTES	39
848	SHOPS	39
849	SHOWS	39
850	SIGNED	39
851	SURAYUD	39
852	TAT	39
853	WANTED	39
854	ADVANCED	38
855	ATTRACT	38
856	CENTRES	38
857	CONTRACTS	38
858	ESTABLISHED	38
859	FAILED	38
860	FALL	38
861	GENERATE	38
862	GREATER	38
863	HAVING	38

864	HEAD	38
865	INSTITUTIONS	38
866	ISLAMIC	38
867	ITV	38
868	JOB	38
869	LEADER	38
870	MINISTRY'S	38
871	MODERN	38
872	NEAR	38
873	RAW	38
874	RECEIVE	38
875	ROLE	38
876	SALE	38
877	SPENT	38
878	SUBJECT	38
879	TOYOTA	38
880	WHY	38
881	AFFECT	37
882	EFFECTIVE	37
883	EGAT	37
884	ESTIMATED	37
885	FOURTH	37
886	GASOHOL	37
887	INTELLECTUAL	37
888	OFFICIAL	37
889	PREVIOUS	37
890	PROVIDING	37
891	SATANG	37

892	SAY	37
893	SEC	37
894	STORES	37
895	STRONGER	37
896	STRUCTURE	37
897	TELEVISION	37
898	THANI	37
899	TRAINING	37
900	TRUE	37
901	ACHIEVE	36
902	AFFECTED	36
903	AGGRESSIVE	36
904	ALONG	36
905	BANG	36
906	CHINESE	36
907	DIESEL	36
908	DIRECT	36
909	EFFECT	36
910	FASHION	36
911	FEDERATION	36
912	FEE	36
913	FRIDAY	36
914	KING	36
915	KRIRK	36
916	LOOKING	36
917	MEANS	36
918	OFFERS	36
919	OTHERS	36

920	RAI	36
921	RECEIVED	36
922	RESORT	36
923	TAKING	36
924	TARGETS	36
925	THINK	36
926	UNCERTAINTY	36
927	AMID	35
928	ASK	35
929	ATTRACTIVE	35
930	AWARD	35
931	AYUDHYA	35
932	BENEFITS	35
933	BUYING	35
934	CANNOT	35
935	CHARGES	35
936	EQUIPMENT	35
937	EXPANDING	35
938	FARMERS	35
939	FULLY	35
940	GROUPS	35
941	HOUSING	35
942	INVESTING	35
943	LIMITED	35
944	LISTED	35
945	MEDICAL	35
946	NUMBERS	35
947	ONLINE	35

948	PORTFOLIO	35
949	PROMOTING	35
950	QUITE	35
951	SIGNING	35
952	VEHICLES	35
953	AIRWAYS	34
954	ALLOW	34
955	ALTERNATIVE	34
956	BELOW	34
957	BROADCASTING	34
958	CHILDREN	34
959	CONFERENCE	34
960	DROPPED	34
961	ELECTRIC	34
962	EUROPEAN	34
963	EVENTS	34
964	FACT	34
965	FACTORY	34
966	HAND	34
967	HARD	34
968	JUNE	34
969	KEEP	34
970	KINGDOM'S	34
971	LED	34
972	LEGISLATIVE	34
973	MASS	34
974	OPENING	34
975	OPERATE	34

976	OPERATION	34
977	PARTNERSHIP	34
978	POOL	34
979	SEMINAR	34
980	SERIES	34
981	SHOWED	34
982	SIMILAR	34
983	TOGETHER	34
984	TRANSIT	34
985	AGRICULTURE	33
986	ASSEMBLY	33
987	AUTHORITIES	33
988	BILATERAL	33
989	BRING	33
990	CHAMBER	33
991	CHANGES	33
992	CO	33
993	COMING	33
994	CONSIDERED	33
995	DOUBLE	33
996	GROSS	33
997	KRAI	33
998	LITRE	33
999	MAKERS	33
1000	OPPORTUNITY	33
1001	PANEL	33
1002	PHILIPS	33
1003	PROPERTIES	33

1004	SAW	33
1005	SENT	33
1006	SEPTEMBER	33
1007	SOCIETY	33
1008	SUCCESSFUL	33
1009	SUKHUMVIT	33
1010	SUSSANGKARN	33
1011	TAXES	33
1012	THAIS	33
1013	WORLDWIDE	33
1014	AIRLINE	32
1015	APPOINTED	32
1016	CONSIDERING	32
1017	DISCUSS	32
1018	EXPRESS	32
1019	FIELD	32
1020	FIGURE	32
1021	FIXED	32
1022	HIGHEST	32
1023	HUMAN	32
1024	INFRASTRUCTURE	32
1025	LITRES	32
1026	LOCATED	32
1027	ORDERS	32
1028	PAID	32
1029	PERCENTAGE	32
1030	PURCHASE	32
1031	RANKED	32

1032	REQUIRES	32
1033	STAGE	32
1034	STRATEGIC	32
1035	TELECOMMUNICATIONS	32
1036	BAD	31
1037	BEGINNING	31
1038	CLIENTS	31
1039	COMPLETE	31
1040	CONCERNS	31
1041	DISTRIBUTION	31
1042	ENVIRONMENTAL	31
1043	GAIN	31
1044	GOING	31
1045	IDEA	31
1046	INTEGRATED	31
1047	INVESTED	31
1048	JOIN	31
1049	LABOUR	31
1050	LIGHT	31
1051	MUTUAL	31
1052	OFFICER	31
1053	PERSONAL	31
1054	PETROLEUM	31
1055	RAIL	31
1056	RANGE	31
1057	REASON	31
1058	REMAINING	31
1059	REPRESENTATIVES	31

1060	RETAILERS	31
1061	SHOPPING	31
1062	STAY	31
1063	STRENGTH	31
1064	TARISA	31
1065	THROUGHOUT	31
1066	TOUR	31
1067	TRAIN	31
1068	ADMINISTRATIVE	30
1069	ALLOCATION	30
1070	ALWAYS	30
1071	AMENDED	30
1072	BRANCH	30
1073	BROKER	30
1074	COMPETE	30
1075	CONTROLS	30
1076	CORP	30
1077	DESIGNED	30
1078	DIFFICULT	30
1079	EASY	30
1080	EXAMPLE	30
1081	FOLLOW	30
1082	FORCE	30
1083	FREQUENCY	30
1084	FURNITURE	30
1085	GOLD	30
1086	ISSUED	30
1087	MODELS	30

1088	NAME	30
1089	NITIDA	30
1090	ORDERED	30
1091	ORGANISATIONS	30
1092	REDUCED	30
1093	ROOM	30
1094	SHOP	30
1095	SIGNIFICANTLY	30
1096	STATEMENT	30
1097	STOCKS	30
1098	STRATEGIES	30
1099	VOLUME	30
1100	WEBSITE	30
1101	ADVANTAGE	29
1102	ASAWANIPONT	29
1103	AWARDS	29
1104	AWARENESS	29
1105	CHECK	29
1106	CLAIMS	29
1107	COMES	29
1108	CONDITIONS	29
1109	COVER	29
1110	DIRECTORS	29
1111	FELL	29
1112	GENERATING	29
1113	GREEN	29
1114	ILLEGAL	29
1115	JOINED	29

1116	KNOWLEDGE	29
1117	KNOWN	29
1118	LAOS	29
1119	LEASING	29
1120	LIGHTING	29
1121	PRODUCE	29
1122	RESIDENTIAL	29
1123	SCIENCE	29
1124	SLOWDOWN	29
1125	SPORTS	29
1126	STATES	29
1127	TARGETED	29
1128	TEA	29
1129	VARIOUS	29
1130	VISIT	29
1131	ACCOUNTS	28
1132	ACQUISITION	28
1133	ANNUALLY	28
1134	APPLY	28
1135	AWAY	28
1136	CAMERAS	28
1137	COMBINED	28
1138	CONCESSION	28
1139	DAILY	28
1140	DECLINE	28
1141	DEVELOPED	28
1142	ENJOY	28
1143	FACTOR	28

1144	FORM	28
1145	FRESH	28
1146	GREAT	28
1147	HOMES	28
1148	LINES	28
1149	LITTLE	28
1150	LOSS	28
1151	MINISTERS	28
1152	NOTED	28
1153	ORIGINAL	28
1154	POOR	28
1155	REMAINS	28
1156	SAVINGS	28
1157	TRAFFIC	28
1158	AUSTRALIA	27
1159	BODY	27
1160	CAMBODIA	27
1161	CEMENT	27
1162	CONSIDERATION	27
1163	CREATED	27
1164	CUTTING	27
1165	EFFICIENCY	27
1166	ENTERPRISE	27
1167	EVERYTHING	27
1168	HOPES	27
1169	HORSE	27
1170	INSTANCE	27
1171	INTERCONNECTION	27

1172	ITEMS	27
1173	KOSIT	27
1174	LICENCE	27
1175	NATIONWIDE	27
1176	PREVENT	27
1177	PROPOSAL	27
1178	PROTECT	27
1179	PROVIDED	27
1180	REALLY	27
1181	RED	27
1182	SAFETY	27
1183	SEASON	27
1184	SKIN	27
1185	SOLUTIONS	27
1186	SOMCHAI	27
1187	STEP	27
1188	SUBMIT	27
1189	THUS	27
1190	TURN	27
1191	USERS	27
1192	WHITE	27
1193	WISE	27
1194	ACHARA	26
1195	AIN	26
1196	BELIEVED	26
1197	BILL	26
1198	BUILT	26
1199	CAUSE	26

1200	CAUSED	26
1201	CLOSELY	26
1203	FATHER	26
1204	FIBRE	26
1205	FOREIGNERS	26
1206	GENERATED	26
1207	IMAGE	26
1208	INITIAL	26
1209	LACK	26
1210	LAWS	26
1211	NEARLY	26
1212	NEGOTIATIONS	26
1213	OFFERED	26
1214	OPTION	26
1215	PORT	26
1216	PROFITS	26
1217	REACHED	26
1218	RECORD	26
1219	SEAMICO	26
1220	SEEK	26
1221	SIDE	26
1222	SOLUTION	26
1223	STARTING	26
1224	TRANSFER	26
1225	TREE	26
1226	TUESDAY	26
1227	UNFAIR	26
1228	WE'LL	26

1229	WORKED	26
1230	WORKERS	26
1231	ADJUST	25
1232	ANOMA	25
1233	ASIDE	25
1234	ATTEMPT	25
1235	BAN	25
1236	BOI	25
1237	BUSINESSMEN	25
1238	CALLING	25
1239	CLASS	25
1240	COLLECTION	25
1241	CONCEPT	25
1242	DIRECTION	25
1243	DRINK	25
1244	EXCISE	25
1245	FITNESS	25
1246	GOES	25
1247	INCLUDES	25
1248	INTERESTED	25
1249	KWANCHAI	25
1250	LETTER	25
1251	LIVING	25
1252	MACHINERY	25
1253	MINIMUM	25
1254	MONDAY	25
1255	NATIONGROUP	25
1256	PHILIPPINES	25

1257	PREMIUM	25
1258	PROTECTION	25
1259	PROVIDER	25
1260	PROVIDES	25
1261	RESPONSE	25
1262	RESTRUCTURING	25
1263	RISKS	25
1264	SEGWAY	25
1265	SETTING	25
1266	SOFTWARE	25
1267	SOMETHING	25
1268	STATIONS	25
1269	TECHNOLOGIES	25
1270	TOT'S	25
1271	TRADITIONAL	25
1272	WAIT	25
1273	WENT	25
1274	WITHHOLDING	25
1275	ABOVE	24
1276	ACTION	24
1277	ADDRESS	24
1278	ALLOWED	24
1279	APPLICATION	24
1280	AVAILABLE	24
1281	BANYAN	24
1282	BEGAN	24
1283	BEHIND	24
1284	BLOCK	24

1285	CASES	24
1286	CHEAPER	24
1287	COMPETITIVE	24
1288	CONFIDENT	24
1289	CORE	24
1290	DISTRICT	24
1291	DIVIDEND	24
1292	DONE	24
1293	EMERGING	24
1294	EVER	24
1295	FORUM	24
1296	FTI	24
1297	HIGHLY	24
1298	HUA	24
1299	IMPROVING	24
1300	ITSELF	24
1301	JULY	24
1302	KASIKORNBANK	24
1303	KOREAN	24
1304	LEARN	24
1305	LOCATION	24
1306	MILITARY	24
1307	MPC	24
1308	NBC	24
1309	NORTH	24
1310	OCEAN	24
1311	OFTEN	24
1312	OPTIONS	24

1313	PARK	24
1314	PAYMENT	24
1315	PERMANENT	24
1316	PRACTICES	24
1317	REPORTERS	24
1318	RESPECTIVELY	24
1319	ROUTE	24
1320	RUBBER	24
1321	RUNGFAPAISARN	24
1322	SCHEDULED	24
1323	SITE	24
1324	SRISUKKASEM	24
1325	STAR	24
1326	STRENGTHENING	24
1327	SURPLUS	24
1328	TOKYO	24
1329	TRIED	24
1330	AIRCRAFT	23
1331	ASSISTANT	23
1332	AUTOMOBILE	23
1333	AVIATION	23
1334	AVOID	23
1335	BANGKOK'S	23
1336	CHALIDA	23
1337	CHANGED	23
1338	COMMON	23
1339	CUTS	23
1340	DEFICIT	23

1341	EKVITTHAYAVECHNUKUL	23
1342	GROUP'S	23
1343	HEARING	23
1344	HIN	23
1345	HOT	23
1346	INVESTMENTS	23
1347	JOINING	23
1348	LOCATIONS	23
1349	MANAGED	23
1350	MANUFACTURER	23
1351	MID	23
1352	OCTANE	23
1353	OCTOBER	23
1354	OUTSTANDING	23
1355	PARTICIPANTS	23
1356	PHASE	23
1357	PROGRAMMES	23
1358	PROGRESS	23
1359	RADIO	23
1360	REHABILITATION	23
1361	ROYAL	23
1362	RULING	23
1364	SHIN	23
1365	SPACE	23
1366	SPECULATION	23
1367	STATUS	23
1368	SUBSCRIBERS	23
1369	SURE	23

1370	TALKS	23
1371	THONGRUNG	23
1372	TISCO	23
1373	VIEW	23
1374	WATCHARAPONG	23
1375	WEDNESDAY	23
1376	WIN	23
1377	WORKS	23

APPENDIX C

100 TARGET WORDS LISTS IN THE BVLP

Rank	Word	Part of speech
1	Consumer	n.
2	Distributor	n.
3	Economy	n.
4	Enterprise	n.
5	Include	v.
6	Invest	v.
7	Product	n.
8	Stimulate	v.
9	Purchase	v.
10	Profit	n.
11	Debt	n.
12	Expenditure	n.
13	Flexibility	n.
14	Index	n.
15	Inflation	n.
16	Interest rate	n.
17	Loan	n.
18	Overdraft	n.
19	Omit	v.
20	Management	n.

2	Achieve	v.
2	Augment	v.
2	Boost	v.
2	Capacity	n.
2	Corporation	n.
2	Manufacture	n
2	Quota	n.
2	Stakeholder	n.
2	Subsidize	v.
3	Target	n.
3	Annum	n.
3	Counterpart	n.
3	Expense	n.
3	Financial	adj
3	Fiscal	adj
3	Income	n.
3	Nationwide	adj
3	Revenue	n.
3	Trade	n.
4	Undergo	v.
4	Adjust	v.
4	Allocation	n.
4	Assume	v.
4	Compensate	v.
4	Incorporate	adj

46	Insurance	n.
47	Insure	n.
48	Option	n.
49	Raise	v.
50	Repay	v.
51	Broker	n.
52	Dominance	n.
53	Downturn	n.
54	Installment	n.
55	Nominate	v.
56	Premium	adj.
57	Shareholder	n.
58	Stake	n.
59	Stock	n.
60	Suspension	n.
61	Accommodate	v.
62	Awareness	v.
63	Convert	v.
64	Deteriorate	v.
65	Downward	adv.
66	Generation	n.
67	Inception	n.
68	Overdose	n.
69	Regulation	n.
70	Sensor	n.

7	Acquire	v.
7	Barrier	n.
7	Collateral	adj.
7	Concept	n.
7	Defer	v.
7	Establish	v.
7	Establishment	n.
7	Facility	n.
7	Reach	v.
8	Strike	n.
8	Adequacy	n.
8	Adoption	n.
8	Amend	v.
8	Designate	v.
8	Disrupt	v.
8	Consecutive	adj.
8	Maintenance	n.
8	Implementation	n.
8	Retail	n.
9	Defer	v.
9	Avenue	n.
9	Amend	v.
9	Deficit	n.
9	Discrimination	n.
9	Enact	v.
9	Garment	n.

97	Government	n.
98	Local	adj.
99	Preliminary	adv.
100	Restrain	v.

APPENDIX D

PRE AND POST TRANSLATION VOCABULARY TESTS

Name..... ID number.....

Instruction: Please translate the meaning of each word in Thai or English.

Rank	Word	Thai	English
1.	Consumer		
2.	Distributor		
3.	Economy		
4.	Enterprise		
5.	Include		
6.	Invest		
7.	Product		
8.	Stimulate		
9.	Purchase		
10.	Profit		
11.	Debt		
12.	Expenditure		
13.	Flexibility		

14.	Index		
15.	Inflation		
16.	Interest rate		
17.	Loan		
18.	Overdraft		
19.	Omit		
20.	Management		
21.	Achieve		
22.	Augment		
23.	Boost		
24.	Capacity		
25.	Corporation		
26.	Manufacture		
27.	Quota		
28.	Stakeholder		
29.	Subsidize		
30.	Target		
31.	Annum		
32.	Counterpart		

33.	Expense		
34.	Financial		
35.	Fiscal		
36.	Income		
37.	Nationwide		
38.	Revenue		
39.	Trade		
40.	Undergo		
41.	Adjust		
42.	Allocation		
43.	Assume		
44.	Compensate		
45.	Incorporate		
46.	Insurance		
47.	Insure		
48.	Option		
49.	Raise		
50.	repay		

51.	Broker		
52.	Dominance		
53.	Downturn		
54.	Installment		
55.	Nominate		
56.	Premium		
57.	Shareholder		
58.	Stake		
59.	Stock		
60.	Suspension		
61.	Accommodate		
62.	Awareness		
63.	Convert		
64.	Deteriorate		
65.	Downward		
66.	Generation		
67.	Inception		
68.	Overdose		
69.	Regulation		

70.	Sensor		
71.	Acquire		
72.	Barrier		
73.	Collateral		
74.	Concept		
75.	Defer		
76.	Establish		
77.	Establishment		
78.	Facility		
79.	Reach		
80.	Strike		
81.	Adequacy		
82.	Adoption		
83.	Amend		
84.	Designate		
85.	Disrupt		
86.	Consecutive		
87.	Maintenance		
88.	Implementation		

89.	Retail		
90.	Defer		
91.	Avenue		
92.	Amend		
93.	Deficit		
94.	Discrimination		
95.	Enact		
96.	Garment		
97.	Government		
98.	Local		
99.	Preliminary		
100.	Restrain		

.....The end of the test.....

APPENDIX E

QUESTIONNAIRE 1

This questionnaire aims to investigate the opinions on BVLP of learners. It consists of 12 items, two of which are open-ended questions.

Direction: please mark with after each item according to your opinion with a five scale

below:

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

Items	LEVEL OF OPINIONS				
	5	4	3	2	1
1. The BVLP is easy to use.					
2. The BVLP is attractive.					
3. The content meets your needs.					

4. The objectives of the BVLP are clear.					
5. The instructions of the BVLP are clear. The readers can understand them correctly.					
6. The language used in each package is clear; the user can understand and do the activities correctly.					
7. The explanations of words in English make the users understand the meaning of words.					
8. The number of word study; 10 words a package is enough.					
9. All 4 exercises in each package are enough to make the users understand the meaning of words precisely.					
10. The types of exercises used in each package are of various styles and are interesting.					
11. The time given for each package is appropriate.					
12. Each package is ordered from the easy lessons to the more difficult lessons.					

13. How do you think BVLV helped you learn vocabulary?

14. What are your suggestions for the design of BVLV ?

APPENDIX F

QUESTIONNAIRE 2

This questionnaire aims to investigate the opinions on BVLP of learners. It consists of 12 items, two of which are open-ended questions.

Direction: please mark with after each item according to your opinion with a **five scale below:**

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

Items	5	4	3	2	1
1.The BVLP helps me improve my vocabulary knowledge.					
2. My vocabulary knowledge is still poor after learning the BVLP					
3. The BVLP helps me recognize the target words.					
4. The program doesn't help me recognize the target words.					
5. The BVLP helps me understand the meaning of the target words.					

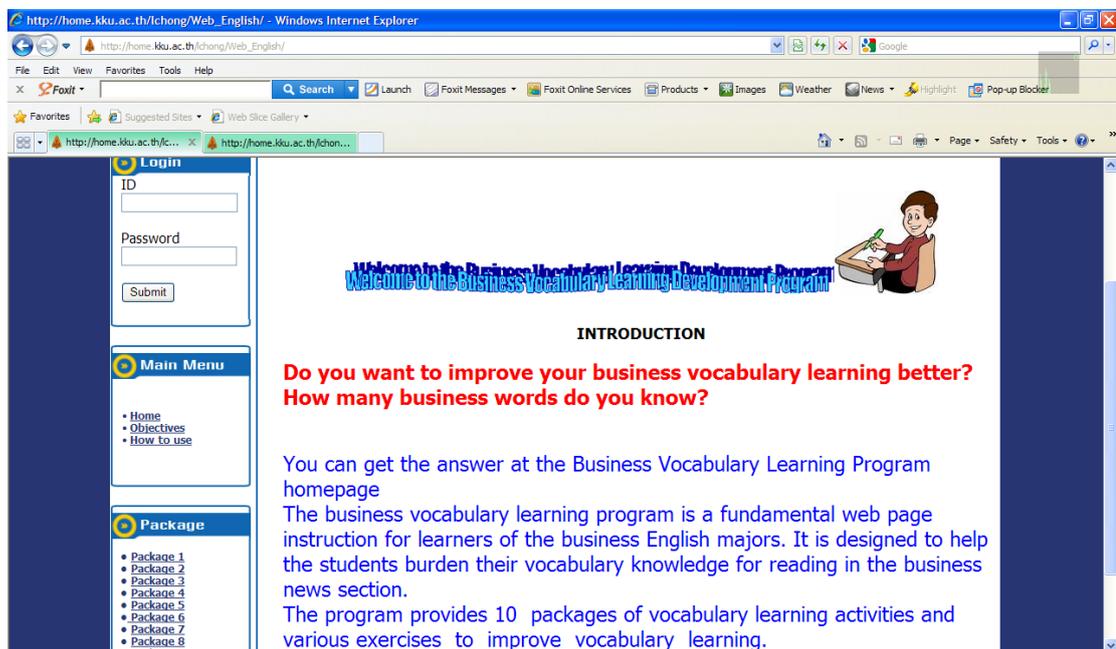
6. The BVLP helps me enable to use the target words in business contexts.					
7. I can remember the target words after learning the BVLP					
8. I cannot remember target words better after learning the BVLP.					
9. The BVLP helps me learn what the word sound like.					
10. The BVLP helps me learn the collocations.					
11. The BVLP helps me learn the business words occurring in everyday life.					
12. The BVLP helps me be able to use the words correctly.					
13. The three types of exercises included in the BVLP help me improve my vocabulary knowledge.					
14. The exercises included in the BVLP don't help me improve my vocabulary knowledge.					
15. The matching exercise helps me to improve my vocabulary knowledge.					
16. The gap-filling exercise helps me to improve my vocabulary knowledge.					
17. The association words exercise helps me to improve my vocabulary knowledge.					
18. The matching exercise helps me understand the meaning of words.					
19. The gap-filling exercise helps me understand the meaning of words.					
20. The association words exercise helps me understand the meaning of words.					

21. The matching exercise helps me be able to use the target words in the context.					
22. The association words exercise helps me be able to use the target words in the context.					
23. The gap-filling exercise helps me be able to use the target words in the context.					
24. The matching exercise helps me improve vocabulary for reading.					
25. The gap-filling exercise helps me improve vocabulary for reading.					
26. The association words exercise helps me improve vocabulary for reading.					
27. I am not confident in using the target words in business contexts after using the program.					
28. The BVLP stimulates me have more motivation in learning target words in order to improve my vocabulary knowledge.					
29. The BVLP stimulates me improve my vocabulary knowledge by myself.					
30. The BVLP doesn't encourage me construct my own knowledge in understanding the meaning of target words.					
31. I don't have any collaboration with other learners when learning with the BVLP.					
32. I don't receive the immediate feedback after finishing the BVLP.					

Thank you for your cooperation.

APPENDIX G

EXCERPTS FROM BUSINESS VOCABULARY LEARNING PROGRAM



The screenshot shows a Windows Internet Explorer browser window displaying the homepage of the Business Vocabulary Learning Program. The address bar shows the URL: http://home.kku.ac.th/chong/Web_English/. The page features a navigation menu on the left with sections for 'Login', 'Main Menu', and 'Package'. The 'Main Menu' includes links for 'Home', 'Objectives', and 'How to use'. The 'Package' section lists 'Package 1' through 'Package 8'. The main content area has a blue header with the text 'Welcome to the Business Vocabulary Learning Development Program' and a cartoon illustration of a person sitting at a desk. Below this is the 'INTRODUCTION' section, which contains the following text:

**Do you want to improve your business vocabulary learning better?
How many business words do you know?**

You can get the answer at the Business Vocabulary Learning Program homepage
The business vocabulary learning program is a fundamental web page instruction for learners of the business English majors. It is designed to help the students burden their vocabulary knowledge for reading in the business news section.
The program provides 10 packages of vocabulary learning activities and various exercises to improve vocabulary learning.

http://home.kku.ac.th/chong/Web_English/package.php?file=package1.html - Windows Internet Explorer

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PACKAGE 1

WORD STUDY

Consumer	Distributor	Economy	Enterprise	Include
Invest	Product	Stimulate	Purchase	Profit

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next

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ACTIVITY 1

Do you know these words?
Please tick / the words you know

Vocabulary	Know	don't know
Consumer	<input type="checkbox"/>	<input type="checkbox"/>
Distributor	<input type="checkbox"/>	<input type="checkbox"/>
Economy	<input type="checkbox"/>	<input type="checkbox"/>
Enterprise	<input type="checkbox"/>	<input type="checkbox"/>
Include	<input type="checkbox"/>	<input type="checkbox"/>
Invest	<input type="checkbox"/>	<input type="checkbox"/>
Product	<input type="checkbox"/>	<input type="checkbox"/>
Stimulate	<input type="checkbox"/>	<input type="checkbox"/>
Purchase	<input type="checkbox"/>	<input type="checkbox"/>
Profit	<input type="checkbox"/>	<input type="checkbox"/>

check

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The Business Vocabulary Learning Development Program

Home | Score | You are not log in

http://home.kku.ac.th/chong/Web_English



Know = 0

Don't know = 0

You are not login.

next 

Done

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ACTIVITY 2

Directions:

Please scan these following words in the given short passages.

Consumer	Distributor	Economy	Enterprise	Include
Invest	Product	Stimulate	Purchase	Profit

Centre point Media Investments is involved in financial state and management, as well as providing advice and services to legal entities and other enterprises.

Buoying their confidence is the arrival of summer and a 15-per-cent drop in retail prices, which should stimulate demand both in first and replacement markets

A drop in market share has reminded PZ Cussons, the manufacturer and distributor of Imperial Leather soap that it cannot focus solely on production quality while neglecting brand awareness

All of disposable products are used in Spa / Lab / Hospital / Factory for example, Face mask / Pleated Cap / Bikini / Apron / Bed Sheet others.

The bill includes tax and service.

These price cuts are good news for consumers.

We're trying to boost the local economy as much as we can.

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ACTIVITY 3

Directions:
Use the concordances provided to guess the meaning of each word. If you cannot guess the meanings, please consult dictionary page.

1. consumer

- In the early 1980s, new lending was roughly the same in **consumer** finance as in housing and property finance.
- The proposal came at a meeting organized by the National **Consumer's** Council, a representative body established by statute in 1975.
- We have, for many years, had legislation aimed at protecting the **consumer** from harmful food, but recently the law about food safety has been modified and extended to give even greater protection.

Meaning

 [Link to Dictionary](#) | [Longman](#) | [Longdo](#)

2. distributor

- The **distributor** may specify the standard and format of these copy masters and will return the copy masters to the

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ACTIVITY 4

Directions: Study the given words, their meanings and examples provided.

WORD	THAI MEANING	ENGLISH MEANING AND EXAMPLES
1. consumer	ผู้บริโภค	((Noun) a person who buys goods or services for their own use: The new telephone rates will affect all consumers including businesses. consumer rights/advice
2. distributor	ผู้ค้าส่ง,พ่อค้า,ผู้แทนจำหน่าย,ผู้แจกจ่าย	((Noun) a person or organization that supplies goods to shops and companies: a film distributor

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ACTIVITY 5

VOCABULARY EXERCISES



Directions: Do vocabulary Exercises 1-3

***MATCHING**

***GAP-FILLING**

***WORD ASSOCIATION**

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EXERCISE 1

Matching

DIRECTION: choose the appropriate definitions in the word provided.

Check

1. Consumer	?
2. Distributor	?
3. Economy	- comprise or contain as part of a whole - a person who buys a product or service for personal use - the state of a country or region in terms of the production and consumption of goods and services and the supply of money - benefit, especially financially
4. Enterprise	- put money into financial schemes, shares, or property - with the expectation of achieving a profit - a business or company
5. Include	- an agent who supplies goods to retailers - the action of buying
6. Invest	- an article or substance manufactured for sale - arouse, encourage or provoke
7. Product	?
8. Profit	?
9. Purchase	?
10. Stimulate	?

Check

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EXERCISE 2

Direction: choose the best answer.

assume stake downward enterprise incorporate
adequacy adjust stimulate distributor loan

1. Siam Paragon Inc. is a publisher and of contemporary, fine art and photographic calendars, diaries, social and greetings stationery.

2. I admire Jim's in trying new business although the economy is quite weak.

3. The new graduates are finding it difficult to good jobs because of the crisis.

4. How much investment is required in and how much is the company willing to ?

5. He must all the necessary explain the purpose of the gestures.

6. If a is high quality, the consumers are willing to buy.

7. Prices in the shops, politics and politicians, food and drink, smells and tastes are all phenomena which can the mind.

8. This responsiveness to demand is also likely to lead to greater choice.

Done

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Exercise 3

Direction : choose the best answer.

1 / 9 => [Show all questions](#)

A variety of options for building the are being examined including an issue of new shares in return for GM injecting between £200m and £600m.

A. bet

B. wager

C. stake

D. gamble

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Do you know these words?
Please tick / the words you know

Vocabulary	Know	Don't know
Consumer	<input type="checkbox"/>	<input type="checkbox"/>
Distributor	<input type="checkbox"/>	<input type="checkbox"/>
Economy	<input type="checkbox"/>	<input type="checkbox"/>
Enterprise	<input type="checkbox"/>	<input type="checkbox"/>
Include	<input type="checkbox"/>	<input type="checkbox"/>
Invest	<input type="checkbox"/>	<input type="checkbox"/>
Product	<input type="checkbox"/>	<input type="checkbox"/>
Stimulate	<input type="checkbox"/>	<input type="checkbox"/>
Purchase	<input type="checkbox"/>	<input type="checkbox"/>
Profit	<input type="checkbox"/>	<input type="checkbox"/>

check

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Home | Score | You are not log in
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ACTIVITY 7
VOCABULARY BOARD

PLEASE SHARE YOUR IDEA AND DISCUSS ABOUT THE VOCABULARY KNOWLEDGE YOU HAVE GAINED FROM THE ACTIVITIES WITH YOUR FRIENDS AS SO AS THE PROBLEMS YOU HAVE FOUND.

Go To Vocabulary Board 

APPENDIX H

INTERVIEW QUESTIONS

In depth semi-structured interview Questions

The participants talked to the researcher individually when the experimental period is completed. The following questions were used as a main guideline in order to extract the learning outcomes and opinions about the BVLP.

- How often do you use this program?
- Do you like this program?
- What is your opinion about the content of the program?
- What is overall opinion of this program ? Which reasons?
- Do you think what you get from learning this program? What parts in the program do you think useful for you?
- In your opinion, have your vocabulary knowledge improved after using this program? If they have improved, what function of the program have helped you?

APPENDIX J**LIST OF EXPERTS**

Rank	Name	Workplace
1	Dr. John Walsh	University of South Australia, Australia
2	Dr. Zheng Lin	University of South Australia, Australia
3	Dr. Sukanya Kaovivathankul	Naresuan University, Payao Campus

CURRICULUM VITAE

The author, Miss Chongrak Liangpanit, was born on August 14, 1975 in Nakhon Ratchasima Province. She received a Bachelor of Arts in English from the Faculty of Humanities and Social Sciences, KhonKaen University in 1998 and a Master of Arts in English from KhonKaen University in 2002. In 2005, she was granted the Thai government scholarship to pursue her Ph.D in English Language Studies Program at Suranaree University of Technology. In 2007-2008, as part of the requirement of the scholarship, she spent one year at the University of South Australia, Australia, developing her research skills.

Her research interests include teaching methodology, corpus-based approach to vocabulary, material design, and Computer Assisted Language Learning (CALL).

She is currently working as a full-time lecturer in the English Program at the Faculty of Humanities and Social Sciences, Khon Kaen University.